

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)
☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2020
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM
TO

Commission File Number 001-39311

CEREVEL THERAPEUTICS HOLDINGS, INC.

(Exact name of Registrant as specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)
222 Jacobs Street, Suite 200
Cambridge, MA
(Address of principal executive offices)

85-3911080
(I.R.S. Employer
Identification No.)

02141
(Zip Code)

Registrant's telephone number, including area code: (844) 304-2048

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---|----------------------|--|
| Common stock, par value \$0.0001 per share Warrants to purchase one share of common at an exercise price of \$11.50 | CERE CEREW | The Nasdaq Capital Market The Nasdaq Capital Market |

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). YES ☒ NO ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | |
|-------------------------|-------------------------------------|---------------------------|-------------------------------------|
| Large accelerated filer | <input type="checkbox"/> | Accelerated filer | <input type="checkbox"/> |
| Non-accelerated filer | <input checked="" type="checkbox"/> | Smaller reporting company | <input checked="" type="checkbox"/> |
| Emerging growth company | <input checked="" type="checkbox"/> | | |

If an emerging growth company, indicate by check mark if the Registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the Registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, based on the closing price of the Registrant's units on The Nasdaq Capital Market on June 30, 2020, was approximately \$173,420,000.

The number of shares of Registrant's common stock outstanding as of March 15, 2021 was 127,277,270.

DOCUMENTS INCORPORATED BY REFERENCE

The Registrant intends to file a definitive proxy statement pursuant to Regulation 14A relating to the 2021 Annual Meeting of Stockholders within 120 days of the end of the Registrant's fiscal year ended December 31, 2020. Portions of such definitive proxy statement are incorporated by reference into Part III of this Annual Report on Form 10-K to the extent stated herein.

INTRODUCTORY NOTE AND FREQUENTLY USED TERMS

On October 27, 2020 (the “Closing Date”), ARYA Sciences Acquisition Corp II, a Cayman Islands exempted company and our predecessor company (“ARYA”), consummated the previously-announced business combination (the “Business Combination”) pursuant to the terms of the Business Combination Agreement, dated as of July 29, 2020 (as amended on October 2, 2020 by Amendment No. 1 to Business Combination Agreement, and as may be further amended, supplemented or otherwise modified from time to time, the “Business Combination Agreement”), by and among ARYA, Cassidy Merger Sub 1, Inc., a Delaware corporation (“Cassidy Merger Sub”) and Cerevel Therapeutics, Inc., a Delaware corporation (together with its consolidated subsidiaries, “Old Cerevel”).

Pursuant to the Business Combination Agreement, on the Closing Date, (i) ARYA changed its jurisdiction of incorporation by deregistering as a Cayman Islands exempted company and continuing and domesticating as a corporation incorporated under the laws of the State of Delaware (the “Domestication”), upon which ARYA changed its name to “Cerevel Therapeutics Holdings, Inc.” (together with its consolidated subsidiaries, “New Cerevel”) and (ii) Cassidy Merger Sub merged with and into Old Cerevel (the “Merger”), with Old Cerevel as the surviving company in the Merger and, after giving effect to such Merger, Old Cerevel becoming a wholly-owned subsidiary of New Cerevel.

In accordance with the terms and subject to the conditions of the Business Combination Agreement, at the effective time of the Merger (the “Effective Time”), (i) each share and vested equity award of Old Cerevel outstanding as of immediately prior to the Effective Time was exchanged for shares of common stock of New Cerevel, par value \$0.0001 per share (“Common Stock” or “common stock”), or comparable vested equity awards that are settled or are exercisable for shares of Common Stock, as applicable, based on an implied Old Cerevel vested equity value of \$780.0 million, and (ii) all unvested equity awards of Old Cerevel were exchanged for comparable unvested equity awards that are settled or exercisable for shares of Common Stock, as applicable, determined based on the same implied Old Cerevel vested equity value described in clause (i).

Unless the context otherwise requires, references in this Annual Report on Form 10-K, or this Annual Report, to “Cerevel”, the “Company”, “us”, “we”, “our” and any related terms prior to the closing of the Business Combination are intended to mean Cerevel Therapeutics, Inc., a Delaware corporation, and its consolidated subsidiaries, and after the closing of the Business Combination, Cerevel Therapeutics Holdings, Inc., a Delaware corporation, and its consolidated subsidiaries.

This Annual Report contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed as exhibits to this Annual Report.

This Annual Report contains references to trademarks, trade names and service marks belonging to other entities. Solely for convenience, trademarks, trade names and service marks referred to in this Annual Report may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that the applicable licensor will not assert, to the fullest extent under applicable law, its rights to these trademarks and trade names. We do not intend our use or display of other companies’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

In addition, in this document, unless otherwise stated or the context otherwise requires, references to:

- “ARYA” are to ARYA Sciences Acquisition Corp II, a Cayman Islands exempted company, prior to the consummation of the Business Combination;
 - “Bain Investor” are to BC Perception Holdings, LP, a Delaware limited partnership;
 - “Business Combination” or “Business Combination Transaction” are to the Domestication, the Merger and other transactions contemplated by the Business Combination Agreement, collectively, including the PIPE Financing (as defined below);
 - “Bylaws” are to the By-laws of New Cerevel;
 - “Certificate of Incorporation” are to the Certificate of Incorporation of New Cerevel;
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- “Class A ordinary shares” are to the Class A ordinary shares, par value \$0.0001 per share, of ARYA, which automatically converted, on a one-for-one basis, into shares of common stock in connection with the Domestication;
 - “Class B ordinary shares” or “founder shares” are to the 3,737,500 Class B ordinary shares, par value \$0.0001 per share, of ARYA that were initially issued to the Sponsor in a private placement prior to the initial public offering and of which 90,000 were transferred to Messrs. Bauer, Robins and Wider (30,000 shares each) in May 2020, and, in connection with the Domestication, automatically converted, on a one-for-one basis, into shares of common stock;
 - “Closing” are to the closing of the Business Combination;
 - “Closing Date” are to October 27, 2020;
 - “initial public offering” are to ARYA’s initial public offering that was consummated on June 9, 2020;
 - “initial shareholders” are to Sponsor and each of Messrs. Bauer, Robins and Wider;
 - “Governing Documents” are to the Certificate of Incorporation and the Bylaws;
 - “Perceptive PIPE Investor” are to Perceptive Life Sciences Master Fund Ltd, a Cayman Islands exempted company;
 - “Perceptive Shareholders” are to the Sponsor and the Perceptive PIPE Investor;
 - “Pfizer” are to Pfizer Inc., a Delaware corporation;
 - “PIPE Financing” are to the transactions contemplated by the Subscription Agreements, pursuant to which the PIPE Investors collectively subscribed for an aggregate of 32,000,000 shares of common stock for an aggregate purchase price of \$320,000,000;
 - “private placement shares” are to the 499,000 Class A ordinary shares of ARYA sold as part of the private placement units, which automatically converted, on a one-for-one basis, into shares of common stock in connection with the Domestication;
 - “private placement units” are to the 499,000 private placement units that were issued to the Sponsor in a private placement simultaneously with the closing of the initial public offering, which are identical to the units sold in the initial public offering, subject to certain limited exceptions;
 - “Sponsor” are to ARYA Sciences Holdings II, a Cayman Islands exempted limited company;
 - “Subscription Agreements” are to the subscription agreements, entered into by ARYA and each of the PIPE Investors in connection with the PIPE Financing; and
 - “units” are to the units of ARYA, each unit representing one Class A ordinary share and one-third of one warrant to acquire one Class A ordinary share, that were offered and sold by ARYA in its initial public offering and in its concurrent private placement.
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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report may constitute “forward-looking statements” for purposes of the federal securities laws. Our forward-looking statements include, but are not limited to, statements regarding our or our management team’s expectations, hopes, beliefs, intentions or strategies regarding the future. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intends,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. Forward-looking statements in this Annual Report may include, for example, statements about:

- the success, cost and timing of our product development activities and clinical trials, including statements regarding our plans for clinical development of our product candidates and the initiation and completion of any other clinical trials and related preparatory work and the expected timing of the availability of results of the clinical trials;
 - our ability to recruit and enroll suitable patients in our clinical trials;
 - the potential attributes and benefits of our product candidates;
 - our ability to obtain and maintain regulatory approval for our product candidates, and any related restrictions, limitations or warnings in the label of an approved product candidate;
 - our ability to obtain funding for our operations, including funding necessary to complete further development, approval and, if approved, commercialization of our product candidates;
 - the period over which we anticipate our existing cash and cash equivalents will be sufficient to fund our operating expense and capital expenditure requirements;
 - the potential for our business development efforts to maximize the potential value of our portfolio;
 - our ability to identify, in-license or acquire additional product candidates;
 - our ability to maintain the Pfizer License Agreement underlying our product candidates;
 - our ability to compete with other companies currently marketing or engaged in the development of treatments for the indications that we are pursuing for our product candidates;
 - our expectations regarding its ability to obtain and maintain intellectual property protection for our product candidates and the duration of such protection;
 - our ability to contract with and rely on third parties to assist in conducting its clinical trials and manufacture our product candidates;
 - the size and growth potential of the markets for our product candidates, and our ability to serve those markets, either alone or in partnership with others;
 - the rate and degree of market acceptance of our product candidates, if approved;
 - the pricing and reimbursement of our product candidates, if approved;
 - regulatory developments in the United States and foreign countries;
 - the impact of laws and regulations;
 - our ability to attract and retain key scientific, medical, commercial or management personnel;
 - our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
 - our financial performance;
 - the ability to recognize the anticipated benefits of the Business Combination; and
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- the effect of COVID-19 on the foregoing.

The forward-looking statements contained in this Annual Report are based on current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described in the section titled “*Risk Factors*” set forth in Part I, Item 1A of this Annual Report. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. Some of these risks and uncertainties may in the future be amplified by the COVID-19 pandemic and there may be additional risks that we consider immaterial or which are unknown. It is not possible to predict or identify all such risks. We do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

You should read this Annual Report completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

SUMMARY OF MATERIAL RISKS ASSOCIATED WITH OUR BUSINESS

Our business is subject to numerous risks and uncertainties that you should be aware of before making an investment decision, including those highlighted in the section entitled “*Risk Factors*.” These risks include, but are not limited to, the following:

- We are a clinical-stage biopharmaceutical company with a limited operating history. We have incurred significant financial losses since our inception and anticipate that we will continue to incur significant financial losses for the foreseeable future.
 - We will need substantial additional funding, and if we are unable to raise capital when needed, we could be forced to delay, reduce or terminate our product discovery and development programs or commercialization efforts.
 - Due to the significant resources required for the development of our pipeline, and depending on our ability to access capital, we must prioritize the development of certain product candidates over others. Moreover, we may fail to expend our limited resources on product candidates or indications that may have been more profitable or for which there is a greater likelihood of success.
 - Our business is highly dependent on the success of our product candidates. If we are unable to successfully complete clinical development, obtain regulatory approval for or commercialize one or more of our product candidates, or if we experience delays in doing so, our business will be materially harmed.
 - The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time-consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.
 - Business interruptions resulting from the COVID-19 outbreak or similar public health crises could cause a disruption of the development of our product candidates and adversely impact our business.
 - We are dependent on third parties having accurately generated, collected, interpreted and reported data from certain preclinical studies and clinical trials that were previously conducted for our product candidates.
 - If our clinical trials fail to replicate positive results from earlier preclinical studies or clinical trials conducted by us or third parties, we may be unable to successfully develop, obtain regulatory approval for or commercialize our product candidates.
 - We may incur unexpected costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.
 - Even if any of our product candidates receives regulatory approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success, in which case we may not generate significant revenues or become profitable.
 - Competitive products may reduce or eliminate the commercial opportunity for our product candidates, if approved. If our competitors develop technologies or product candidates more rapidly than we do, or their technologies or product candidates are more effective or safer than ours, our ability to develop and successfully commercialize our product candidates may be adversely affected.
 - We depend heavily on our executive officers, third-party consultants and others and our ability to compete in the biotechnology and pharmaceutical industries depends upon our ability to attract and retain highly qualified managerial, scientific and medical personnel. The loss of their services or our inability to hire and retain such personnel would materially harm our business.
 - Bain Investor and Pfizer have significant influence over us.
 - We rely on third parties to assist in conducting our clinical trials. If they do not perform satisfactorily, we may not be able to obtain regulatory approval or commercialize our product candidates, or such approval or commercialization may be delayed, and our business could be substantially harmed.
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- We depend and expect in the future to continue to depend on in-licensed intellectual property. Such licenses impose obligations on our business, and if we fail to comply with those obligations, we could lose license rights, which would substantially harm our business.

The risks described above should be read together with the text of the full risk factors below, in the section entitled “*Risk Factors*” and the other information set forth in this Annual Report, including our consolidated financial statements and the related notes, as well as in other documents that we file with the Securities Exchange Commission, or the SEC. The risks summarized above or described in full below are not the only risks that we face. Additional risks and uncertainties not precisely known to us, or that we currently deem to be immaterial may also materially adversely affect our business, financial condition, results of operations and future growth prospects.

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PART I

Item 1. Business.

Overview

We are a clinical-stage biopharmaceutical company pursuing a targeted approach to neuroscience that combines a deep understanding of disease-related biology and neurocircuitry of the brain with advanced chemistry and central nervous system, or CNS, target receptor selective pharmacology to discover and design new therapies. We seek to transform the lives of patients through the development of new therapies for neuroscience diseases, including schizophrenia, epilepsy and Parkinson's disease. Our "ready-made" pipeline of 11 small molecule programs, which includes five clinical-stage product candidates, was developed through over a decade of research and investment by Pfizer and was supported by an initial capital commitment from an affiliate of Bain Capital and a keystone equity position from Pfizer. We are advancing our broad and diverse pipeline with seven clinical trials underway or expected to start by the end of 2021 and up to eight clinical data readouts expected by the end of 2023. We have built a highly experienced team of senior leaders and neuroscience drug developers who combine a nimble, results-driven biotech mindset with the proven expertise of large pharmaceutical company experience and capabilities in drug discovery and development.

Our portfolio of product candidates is based on a differentiated understanding of the neurocircuitry of CNS diseases, as well as the key pillars of our targeted approach to neuroscience: (1) receptor-drug interactions at the atomic level to achieve targeted receptor subtype selectivity, (2) orthosteric and allosteric chemistry to achieve ideal receptor pharmacology and (3) robust packages of preclinical and clinical data that elucidate the key points of differentiation for our compounds. Our rational design approach uses measured and calculated structural and surface charge information from the target protein combined with high-resolution crystallography data, computational homology models, screening of single-residue mutant proteins, indirect solution-phase imaging techniques and other biophysical measurements to glean key molecular-level information about the interaction between a target protein and our product candidates. These insights then drive structure-informed design of subsequent molecules. Due to our understanding of the specificity and dynamic range of neural networks and how to modulate them, we believe that our product candidates have the potential to achieve optimal therapeutic activity while minimizing unintended side effects of currently available therapies. Below are our five clinical-stage product candidates:

1. CVL-231 is a positive allosteric modulator, or PAM, that selectively targets the muscarinic acetylcholine 4 receptor subtype, or M4. We are currently conducting a Phase 1b trial of CVL-231 in patients with schizophrenia, consisting of Part A, a multiple ascending dose, or MAD, study and Part B, a pharmacodynamic, or PD, assessment. We initiated dosing in Part A of the trial in the second half of 2019 and initiated dosing in Part B of the trial in the second half of 2020, with data expected mid-year 2021.
2. Darigabat (formerly known as CVL-865) is a PAM that selectively targets the alpha-2/3/5 subunits of the GABA_A receptor. In the second half of 2020, we initiated a Phase 2 proof-of-concept trial, known as REALIZE, in patients with drug-resistant focal onset seizures in epilepsy, or focal epilepsy, and a Phase 1 proof-of-principle trial in acute anxiety. Data is expected in the second half of 2021 for the Phase 1 anxiety trial and in the second half of 2022 for the Phase 2 focal epilepsy trial.
3. Tavapadon is a selective dopamine D1/D5 partial agonist that we are developing for the treatment of early- and late-stage Parkinson's disease. We initiated a registration-directed Phase 3 program for tavapadon beginning in January 2020, which includes two trials in early-stage Parkinson's, known as TEMPO-1 and TEMPO-2, one trial in late-stage Parkinson's, known as TEMPO-3, and an open-label safety extension trial, known as TEMPO-4. We expect initial data from our Phase 3 program to be available beginning in the first half of 2023.
4. CVL-871 is a selective dopamine D1/D5 partial agonist specifically designed to achieve a modest level of partial agonism, which we believe may be useful in modulating the complex neural networks that govern cognition, motivation and apathy behaviors in neurodegenerative diseases. We submitted an Investigational New Drug application, or IND, to the U.S. Food and Drug Administration, or FDA, for CVL-871 in the first quarter of 2021 for the treatment of dementia-related apathy. We plan to initiate an exploratory Phase 2a trial for dementia-related apathy in the second quarter of 2021 with data expected in the second half of 2022.

5. CVL-936 is a selective dopamine D3-preferring antagonist that we are developing for the treatment of substance use disorder, or SUD. We expect to receive cooperative grant funding from the National Institute on Drug Abuse, or NIDA, to support the development of this compound in opioid use disorder, or OUD. We initiated a Phase 1 single ascending dose, or SAD, trial in January 2020. We concluded dosing of Cohort 1 of the Phase 1 SAD trial after receiving sufficient clinical data for the intended purposes for this trial. We intend to conduct a multiple dose canine electroencephalogram, or EEG, study prior to resuming Phase 1 SAD and MAD evaluations.

We believe that all five of our clinical-stage product candidates have target product profiles that may enable them to become backbone therapies in their respective lead indications, either replacing standards of care as monotherapies or enhancing treatment regimens as adjunct to existing therapies. Results from the clinical trials mentioned above will guide the potential development of our product candidates in additional indications with similar neurocircuitry deficits.

In addition to our clinical-stage pipeline, we plan to advance the development of our preclinical portfolio across multiple neuroscience indications. This preclinical portfolio includes CVL-354, a kappa opioid receptor antagonist, which we refer to as KORA, which we are developing in major depressive disorder, or MDD, and SUD, and for which we plan to submit an IND in the second quarter of 2021. In addition, we are developing our PDE4B inhibitor program for the treatment of MDD and schizophrenia, and we plan to submit an IND in the second half of 2021. We are deploying the latest technologies, such as artificial intelligence and DNA-encoded chemical libraries, to efficiently identify new therapeutic molecules, including those with disease-modifying potential. We believe that our targeted approach to neuroscience will enable us to create a leading drug discovery and development platform to transform the lives of patients living with neuroscience diseases.

Behind our portfolio stands a team with a multi-decade track record of drug approvals and commercial success. This track record has been driven by their extensive experience with empirically-driven clinical trial design and implementation, a history of successful interactions with regulatory agencies and relationships with global key opinion leaders. We believe that the distinctive combination of our management team and our existing pipeline has the potential to bring to patients the next generation of transformative neuroscience therapies.

Our Approach

Fundamental to our targeted approach to neuroscience is understanding how deficits in neurocircuitry drive the development of symptoms in neuroscience diseases. Achieving optimal therapeutic benefit and minimizing unintended side effects in neuroscience diseases requires tuning the specificity and dynamic range of neural networks. Recent advancements in chemistry, genomics and proteomics have provided tools to enable targeted receptor selectivity with specificity to neural networks that underlie disease symptomatology. Fine-tuning the dynamic range of selective neurotransmitter neurocircuitry requires carefully designed receptor pharmacology, such as allosteric modulation or partial agonism, to normalize neural network function without over-activation or over-suppression.

Below are the key pillars of our targeted approach to neuroscience:

- **Mechanism of action—targeted receptor selectivity:** A single neurotransmitter can act on multiple receptor subtypes that are expressed differentially among neuron types and neural networks within the brain and nervous system. We believe the ability to selectively target neurotransmitter receptor subtypes may provide an important opportunity to achieve maximum activity within specific neural networks while minimizing unintended interactions in other areas of the nervous system that are targeted by non-selective compounds and result in unwanted side effects.
- **Receptor pharmacology:** Neural networks in the brain operate within a dynamic range, and our understanding of disease state mechanics allows us to design molecular attributes that are intended to normalize this range for each disease. For example, classical full receptor agonism or antagonism may fully activate or inactivate neural circuits and can compensate for disease but also may limit normal functional dynamic range. However, partial agonism or allosteric modulation can correct or fine-tune the range of network signaling without fully blocking or overexciting normal activity. Each disease state represents a unique abnormality in neural network activity requiring a nuanced pharmacological

approach. In addition, molecules require specific physical and metabolic properties to become a viable commercial product. Incorporating all of these characteristics into a single molecule can be extremely challenging. The evidence to date for our product candidates suggests that they may balance targeted selectivity with optimal receptor pharmacology. We believe this underscores the differentiation and therapeutic potential of our pipeline.

- **Robust clinical and preclinical evaluation:** Our clinical-stage product candidates have undergone robust clinical and preclinical testing to provide support for continued advancement through the clinical development process. In these early clinical trials and preclinical studies, we have generally observed PK, bioavailability, brain penetration and reduced off-target activity, that demonstrate the potential for reducing tolerability issues. In addition, data from these trials support dose selection generally informed by PET receptor occupancy studies and clinical biomarkers. Based on extensive characterization and research, our product candidates were designed to reproduce validated biological activity while addressing the limitations of prior known compounds. We believe the wealth of clinical and preclinical data generated to date strongly positions our product candidates for clinical advancement.

Our Pipeline

The following table summarizes our current portfolio of product candidates. This table does not include two additional preclinical programs with disease-modifying potential that have not yet been disclosed.

| Compound | Disease Area | Discovery | Pre-clinical | Phase 1 | Phase 2 | Phase 3 | Upcoming Milestone | Mechanism |
|------------------------------------|----------------------------|-----------|--------------|---------|---------|---------|------------------------------|---------------------------------------|
| CVL-231 | Schizophrenia | | | | | | Ph. 1b Data Mid-Year 2021 | M4 PAM |
| Darigabat | Epilepsy | | | | | | Ph. 2 Data 2H 2022 | GABA _A α2/3/5 PAM |
| Darigabat | Anxiety | | | | | | Ph. 1 Data 2H 2021 | |
| Tavapadon | Early Parkinson's | | | | | | Ph. 3 Data 2H 2023 | D1/D5 Strong Partial Agonist |
| Tavapadon (adjunct with L-Dopa) | Late Parkinson's | | | | | | Ph. 3 Data 1H 2023 | |
| CVL-871 | Dementia-related Apathy | | | | | | Ph. 2a Data 2H 2022 | D1/D5 Partial Agonist |
| CVL-936 | Substance Use Disorder | | | | | | Under Evaluation | D3 Preferring Antagonist |
| CVL-354 | MDD / SUD | | | | | | IND Submission 2Q 2021 | KOR Antagonist |
| Lead Optimization | MDD / Schizophrenia | | | | | | IND Submission 2H 2021 | PDE4B |
| Lead Optimization | Schizophrenia | | | | | | Candidate Selection | M4 Agonist |
| Lead Optimization | Parkinson's | | | | | | Candidate Selection | LRRK2 |

Our Product Candidates

CVL-231

We are developing CVL-231 for the treatment of schizophrenia. CVL-231 was rationally designed as a PAM that selectively targets the M4 receptor subtype to harness the anti-psychotic benefit believed to be associated with M4 while minimizing the cholinergic side effects typically associated with pan-muscarinic agonists. We believe CVL-231 has the potential to mark a significant medical advancement as the muscarinic acetylcholine pathway has long been associated with mediation of neurotransmitter imbalance underlying psychosis. To our knowledge, CVL-231 is the only M4-selective PAM currently active in clinical development.

CVL-231 demonstrated robust activity in multiple preclinical psychosis models, including potential benefit in improving cognitive endpoints. Our development plan for CVL-231 is informed by thorough *in vitro* and *in vivo* PK and PD characterization as well as data from competitive muscarinic compounds. CVL-231 has been evaluated in 17 healthy volunteers in a Phase 1 SAD trial which showed that it was generally well tolerated with no serious adverse events or treatment-related subject discontinuations.

We are currently conducting a Phase 1b MAD trial to assess the PK and PD of CVL-231 in patients with schizophrenia. We initiated dosing in Part A of the trial in second half of 2019 and initiated dosing in Part B of the trial in the second half of 2020, with data expected mid-year 2021. We also plan to conduct two positron emission tomography, or PET, trials in healthy volunteers to understand CVL-231 receptor occupancy and its impact on dopamine receptor PD, which will inform dose selection for our later-stage clinical trials.

Darigabat (formerly CVL-865)

We are developing darigabat for the treatment of both epilepsy and anxiety. Darigabat was rationally designed as an orally bioavailable, twice-daily PAM that selectively targets the alpha-2/3/5 subunits of the GABA_A receptor. We believe that by having minimal receptor activation via the alpha-1 subunit-containing GABA_A receptor, darigabat can minimize the negative side effects of sedation and potential for loss of efficacy with repeated use, or tolerance, and addiction seen with traditional non-selective GABA_A receptor modulators, such as benzodiazepines, or BZDs. To our knowledge, darigabat is the only alpha-2/3/5 selective GABA_A receptor PAM being evaluated in clinical trials for epilepsy.

Darigabat has been evaluated in 289 subjects across nine prior clinical trials. In a Phase 2, double-blind, crossover trial in photoepilepsy patients comparing darigabat to lorazepam, a commonly prescribed BZD, and to placebo, darigabat demonstrated anti-epileptic activity similar to lorazepam. In this trial, six out of seven photosensitive patients taking darigabat achieved complete suppression of epileptiform activity evoked by strobe lights. In a Phase 1 trial comparing darigabat to lorazepam, healthy volunteers were assessed using the NeuroCart CNS test battery to characterize the PD of darigabat. Compared with lorazepam, darigabat demonstrated a greater reduction in saccadic peak velocity, a biomarker indicating engagement of alpha-2/3 subunit-containing GABA_A receptors, while having reduced effects on motor coordination (sedation) and cognition. In a Phase 1 MAD trial in healthy volunteers, darigabat showed no dose-related somnolence after the initial titration period, even at dose levels consistent with receptor occupancy of approximately 80%. Taken together, we believe these data suggest that darigabat may have the potential for anti-epileptic activity comparable to currently available BZDs, with reduced sedation, tolerance and withdrawal liabilities that, unlike BZDs, can be dosed chronically.

Based on this extensive clinical data, we initiated REALIZE, a Phase 2 proof-of-concept trial evaluating darigabat as an adjunctive therapy in patients with focal epilepsy, in the second half of 2020, with data expected in the second half of 2022. The focal epilepsy population is the largest subpopulation of epilepsy patients and is often studied to establish proof-of-concept in the development of an anti-epileptic drug, or AED. We also initiated a Phase 1 proof-of-principle trial for acute anxiety in healthy volunteers in the second half of 2020 with data expected in the second half of 2021.

Tavapadon

We are developing tavapadon for the treatment of both early- and late-stage Parkinson's, a neurodegenerative disorder characterized by the death of dopamine-producing neurons in the brain. Tavapadon was rationally designed as an orally bioavailable, once-daily partial agonist that selectively targets dopamine D1/D5 receptor subtypes with the goal of balancing meaningful motor control activity with a favorable tolerability profile. To our knowledge, tavapadon is the only D1/D5 partial agonist currently in clinical development for Parkinson's and the first oral D1/D5 agonist to have achieved sustained motor control improvement in Phase 2 trials of Parkinson's.

As part of an extensive clinical program, tavapadon has been evaluated in 272 subjects across nine prior clinical trials, including four Phase 1 trials, two Phase 1b trials and three Phase 2 trials. In a Phase 2 trial in early-stage Parkinson's, tavapadon demonstrated a statistically significant and clinically meaningful difference from placebo of -4.8 points on the MDS-UPDRS Part III motor score at week 15 of the treatment period. Separation from placebo was observed as early as week three while still in the titration phase. In a Phase 2 trial in late-stage Parkinson's, tavapadon showed a 1.0-hour improvement versus placebo in "on" time without troublesome dyskinesias at week 10 with a sustained effect observed through week 15, which we and our clinical advisors believe is clinically meaningful. Across the nine prior clinical trials, tavapadon has consistently demonstrated what we believe to be a favorable tolerability profile as well as a PK profile with a 24-hour terminal half-life, supporting once-daily dosing.

Based on this extensive clinical data, we initiated a registration-directed Phase 3 program beginning in January 2020, which will include TEMPO-1 and TEMPO-2 trials in early-stage Parkinson's, TEMPO-3 in late-stage Parkinson's and TEMPO-4, an open-label safety extension trial. We expect initial data from our Phase 3 program to be available beginning in the first half of 2023.

CVL-871

We are developing CVL-871 for the treatment of dementia-related apathy. Apathy is the leading neuropsychiatric symptom in patients with dementia. It is also one of the strongest symptomatic predictors of disease progression. While clinicians, patients and caregivers have been challenged by this symptom, there are no currently approved therapies for dementia-related apathy. The FDA has stated interest in development of a therapy for this indication. CVL-871 is a selective partial agonist of dopamine D1/D5 receptor subtypes specifically designed to achieve a modest level of partial agonism, which we believe may be useful in modulating the complex neural networks that govern cognition, motivation and apathy behaviors in neurodegenerative diseases. Dopamine acting on D1/D5 receptor subtypes in the cortex and midbrain plays a key role in the finely-tuned and dynamic neural network that modulates cognitive function, reward-processing and decision-making. In patients with Parkinson's disease, we have observed that improving motor symptoms requires higher levels of partial agonism to offset the large losses in dopaminergic neurons in the motor cortex. In contrast, dementia patients require a more finely-tuned modulation of the neural networks that govern cognition, motivation and behavior to normalize the dynamic range of the mesocortical and mesolimbic neurocircuitry. As such, we have designed CVL-871 to have a lower level of partial agonism than tavapadon. The hypothesis for using D1/D5 receptor subtype partial agonism to treat dementia-related apathy is informed by clinical trials of other compounds where increases in dopamine activity resulted in a statistically significant improvement on apathy scales. We believe CVL-871, while potentially avoiding the cardiovascular effects of stimulant medications, may possess an optimal profile to target this new indication due to the degree to which it activates relevant dopamine circuits within the brain.

CVL-871 has been evaluated in two Phase 1 trials in a total of 58 subjects. In these trials, CVL-871 was observed to be generally well tolerated. We also observed evidence of moderate improvement in motor symptoms, a measure of biological activity, along with a PK profile that supports the potential for once-daily dosing. Based on these findings, we submitted an IND to the FDA in the first quarter of 2021 and we plan to initiate an exploratory Phase 2a trial for dementia-related apathy in the second quarter of 2021 with data expected in the second half of 2022.

CVL-936

We are developing CVL-936 for the treatment of SUD, with an initial focus on opioid use disorder, or OUD. In order to maximize potential for activity, CVL-936, a selective dopamine D3-preferring, D2/D3 receptor subtype antagonist, was designed to block D3 signaling within the brain while also simultaneously reducing (but not fully inhibiting) signaling at the D2 receptor subtype. CVL-936 has shown encouraging activity in translationally relevant preclinical models of both cessation and relapse using nicotine and opioid-induced cues. Based on its profile, we expect CVL-936 will allow for dosing to levels that may result in near complete and sustained blockade of D3 signaling within the brain, which may be useful in treating SUD.

We expect to receive cooperative grant funding from NIDA to support the development of this compound in OUD. We initiated a Phase 1 SAD trial in January 2020. We concluded dosing of Cohort 1 of the Phase 1 SAD trial after receiving sufficient clinical data for the intended purposes for this trial. We intend to conduct a multiple dose canine EEG study prior to resuming Phase 1 SAD and MAD evaluations.

Preclinical Assets

In addition to the clinical-stage product candidates described above, we plan to further characterize and appropriately advance our preclinical pipeline across multiple potential neuroscience indications. Our preclinical pipeline includes:

- CVL-354, a selective KORA that we are advancing for the treatment of MDD and SUD;
- our PDE4B inhibitor program that we are advancing for the treatment of MDD and schizophrenia;
- our M4 full/partial agonist program for potential use in schizophrenia; and
- our LRRK2 inhibitor program that has the potential to address disease progression in Parkinson's.

We are also pursuing other undisclosed targets, including those with disease-modifying potential. These programs include evaluating those initiated by Pfizer as well as others developed internally through the application of human genetic analyses and new technology platforms, such as artificial intelligence and DNA-encoded chemical libraries to establish novel chemical lead series that is designed to enable better understanding of their therapeutic potential.

Our Strategy

We seek to transform the lives of patients with neuroscience diseases by pursuing a targeted approach to neuroscience and leveraging our deep understanding of neurocircuitry, chemistry and receptor pharmacology. Our strategy is to:

- Establish our position as a leader in neuroscience drug discovery and development through the advancement of a diverse and innovative pipeline. We leverage our differentiated understanding of neurocircuitry as well as our innovative clinical trial design and execution to develop our assets across multiple indications. In addition, we are investing in future areas of neuroscience research, including the discovery and development of compounds with disease-modifying potential.
- Rapidly develop our five clinical-stage assets, with seven clinical trials underway or expected to start by the end of 2021 and up to eight clinical data readouts expected by the end of 2023. We are currently conducting a Phase 1b MAD trial to assess the PK and PD of CVL-231 in patients with schizophrenia, with data expected in mid-year 2021. We are also conducting a Phase 2 proof-of-concept trial of darigabat in focal epilepsy and a Phase 1 proof-of-principle trial in acute anxiety in healthy volunteers, with data expected in the second half of 2022 and the second half of 2021, respectively. In addition, in January 2020, we initiated our registration-directed Phase 3 program for tavapadon. This program includes three Phase 3 trials in both early- and late-stage Parkinson's that will be conducted in parallel as well as an open-label extension trial. If approved, we believe that tavapadon would have the potential to become a cornerstone therapy for Parkinson's patients across the disease spectrum. Furthermore, we plan to initiate an exploratory Phase 2a trial of CVL-871 for dementia-related apathy in the second quarter of 2021 with data expected in the second half of 2022. Finally, we are developing CVL-936, which is currently in Phase 1 for the treatment of SUD.

- Advance our preclinical portfolio across multiple neuroscience indications. Our preclinical pipeline includes: (1) CVL-354, a selective KORA that we are advancing for the treatment of MDD and SUD; (2) our PDE4B inhibitor program that we are advancing as a potential therapeutic for MDD and schizophrenia; (3) our M4 full/partial agonist for potential use in schizophrenia; and (4) our LRRK2 inhibitor that has the potential to address disease progression in Parkinson's. We are also pursuing a number of other undisclosed targets, including those with disease-modifying potential. These programs include ones initiated by Pfizer as well as others developed internally through the application of new technology platforms, such as artificial intelligence and DNA-encoded chemical libraries.
- Efficiently allocate capital to maximize the impact of our assets. We seek to efficiently allocate capital through stepwise value creation: driving speed to proof-of-principle, speed to proof-of-concept and speed to market. For example, our early-stage clinical trials are designed to elucidate the potential of our compounds and inform future clinical trials, thereby strengthening our probability of success and our efficiency in bringing our therapies to patients. We aim to be resource- and capital-efficient in the development of our product candidates by selectively accessing complementary expertise and infrastructure through strategic partnerships or other collaborations. We are also building a leading neuroscience team that we believe has a differential ability to identify high-potential assets for acquisition or in-licensing and unlock their full value. We plan to opportunistically pursue such assets from time to time and strategically expand our portfolio.
- Opportunistically match sources and uses of capital. Our broad portfolio both requires and provides a basis for diverse financing options. We will seek to maximize growth opportunities, which may include raising additional capital through a combination of private or public equity offerings, debt financings, royalty-based financing, collaborations, strategic alliances, marketing, distribution or licensing arrangements with third parties or through other sources of financing. By matching sources and uses of capital, we can maximize our value creation opportunities while mitigating operational risk through partnerships.
- Maximize the commercial potential of our product candidates and bring new therapies to underserved patient populations. Our development and commercialization strategy will be driven by our understanding of existing treatment paradigms along with patient, physician and payor needs. We expect to build a focused and efficient medical affairs and commercial organization to maximize the commercial potential of our portfolio. Our current plan is to commercialize our product candidates, if approved, in the United States and international markets, either alone or in collaboration with others.

Our Team and Corporate History

Since our founding in 2018, we have assembled a seasoned management team with expertise in neuroscience research, development, regulatory affairs, medical affairs, operations, manufacturing and commercialization. Our team includes industry veterans who have collectively driven over 20 drug approvals, with prior experience at companies such as Biogen, Bristol-Myers Squibb, Merck, NPS Pharmaceuticals, Onyx Pharmaceuticals, Otsuka Pharmaceutical, Sangamo Therapeutics, Vertex Pharmaceuticals and Yumanity Therapeutics. We have an experienced research and development team focused on utilizing our differentiated understanding of the complex neurocircuitry, receptor pharmacology and genetics that underlie neuroscience diseases. This allows us to develop small molecules with target receptor selectivity and indication-appropriate pharmacology, which we believe are key to enhancing activity and improving tolerability in the treatment of these diseases. We believe that the distinctive combination of our management team and our existing pipeline has the potential to bring to patients the next generation of transformative neuroscience therapies.

In August 2018, we entered into the Pfizer License Agreement, pursuant to which we in-licensed our current pipeline from Pfizer. Under the terms of the Pfizer License Agreement, we are required to pay Pfizer tiered royalties on aggregate net sales of in-licensed products as well as certain regulatory and commercial milestone payments. See “—Pfizer License Agreement.”

In October 2020, we completed our business combination with ARYA Sciences Acquisition Corp II pursuant to which we debuted as a publicly traded company.

Our Product Candidates

CVL-231

We are developing CVL-231 for the treatment of schizophrenia. CVL-231 was rationally designed as a PAM that selectively targets the M4 receptor subtype to harness the anti-psychotic benefit believed to be associated with M4 while minimizing the side effects typically associated with pan-muscarinic agonists. We believe CVL-231 has the potential to mark a significant medical advance as the muscarinic acetylcholine pathway has long been associated with mediation of neurotransmitter imbalance and psychosis. To our knowledge, CVL-231 is the only M4-selective PAM currently in clinical development. We are currently conducting a Phase 1b MAD trial to assess the PK and PD of CVL-231 in patients with schizophrenia. We initiated dosing in Part A of the trial in second half of 2019 and initiated dosing in Part B of the trial in the second half of 2020, with data expected mid-year 2021. We also plan to conduct two PET receptor occupancy trials in healthy volunteers to inform dose levels for our later-stage clinical trials.

Schizophrenia Background

Schizophrenia is a serious, complex and debilitating mental health disorder characterized by a constellation of symptoms, including delusions, hallucinations, disorganized speech or behavior, slowed speech and blunted affect. Schizophrenia is also often associated with significant cognitive impairment, which further limits a patient's ability to be gainfully employed and maintain relationships. Diagnosis of schizophrenia is usually made in young adulthood and the disease follows a chronic and indolent course characterized by periods of remission and relapse. People with schizophrenia have a 10 to 25-year reduction in life expectancy compared to the general population. An estimated 21 million people worldwide suffer from schizophrenia, including up to 2.1 million people in the U.S.

A disruption in the balance of neurotransmitters, including dopamine, serotonin, glutamate, aspartate, glycine and GABA, is believed to be responsible for the pathogenesis of schizophrenia. Abnormal activity at dopamine receptors, specifically the D2 receptor subtype, in the mesolimbic pathway that results in excess dopaminergic transmission is thought to be associated with many of the psychotic symptoms of schizophrenia. Currently available therapies for schizophrenia are all presumed to work through the antagonism of various dopamine receptors, although the exact mechanisms of action for these agents are unknown. Second-generation atypical antipsychotics, or SGAs, such as risperidone, paliperidone and aripiprazole, are recommended as first-line treatment for schizophrenia. SGAs have a lower risk of extrapyramidal symptoms, including abnormal motor side effects, compared to first-generation antipsychotics, or FGAs, such as chlorpromazine and haloperidol. However, SGAs are more likely to cause weight gain, metabolic syndrome, diabetes and dyslipidemia, leading to long-term cardiovascular morbidity. Both SGAs and FGAs can cause hyperprolactinemia, a hormonal imbalance resulting from D2 receptor blockade, which can lead to enlargement of breast tissue in males and infertility. Approximately 10% of patients are prescribed FGAs as first-line therapy, while 90% of patients start with an SGA.

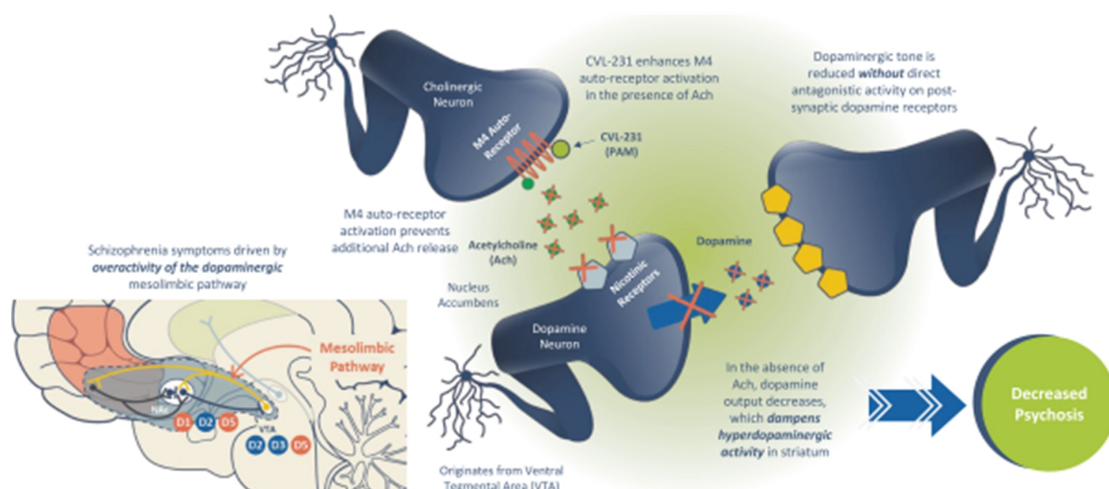
Treatment selection is highly individualized and the current approach is largely one of trial and error across sequential medication choices. Using two or even three different antipsychotic agents together is common, though this practice is not encouraged given the potential for an increased risk of drug-drug interactions, side effects, non-adherence and medication errors.

Despite available therapies, only 20% of patients report favorable treatment outcomes. Medication adherence is poor in patients with schizophrenia, with a compliance rate of about 60% and a discontinuation rate of 74% within 18 months. Patients who discontinue their medication suffer from high relapse rates of 77% at one year and 90% at two years. The further progression of disease is driven by the cycle of repetitive relapse over time. Each relapse in schizophrenia marks a progression in disability, leading physicians to prioritize efficacy in selecting first-line therapy. No new therapies with novel mechanisms of action have been approved for the treatment of schizophrenia in over 20 years. There remains a significant unmet need for more effective therapies with better tolerability profiles in the treatment of schizophrenia.

Muscarinic Receptors in Schizophrenia

One of the leading theories on the etiology of schizophrenia is that an overactivity of dopamine in certain brain regions is closely associated with the prevailing psychotic symptoms. Current antipsychotics target a direct blockade of dopamine receptors. While this approach is effective at reducing symptoms, it also leads to significant side effects.

Presynaptic expression of the M4 receptor subtypes balances acetylcholine and dopamine in the striatum, which is the region of the brain primarily responsible for psychotic symptoms. The imbalance of acetylcholine and dopamine is hypothesized to contribute to psychosis in schizophrenia. Unlike other muscarinic receptors, M4 receptor subtypes are differentially expressed in the striatum. Activation of muscarinic receptors prevents acetylcholine release, which has been shown to indirectly modulate levels of dopamine without the direct D2/D3 receptor blockade that has been theorized to cause some of the unwanted motor symptoms of current antipsychotics. Thus, selective activation of M4 has the potential to be effective in the treatment of the neurobehavioral components such as psychosis, agitation and cognitive deficits that are associated with schizophrenia and other neurodegenerative diseases like Alzheimer's and Parkinson's, while potentially mitigating some of the side effects of current antipsychotics. This mechanism of action is illustrated below:



Clinical trials of xanomeline, a full muscarinic agonist relatively selective for the M4 and M1 subtypes, demonstrated that activation of muscarinic receptors led to dose-dependent improvements in a number of psychiatric symptoms, including psychosis, cognition, agitation and aggression in both schizophrenia and Alzheimer's patients. Despite these compelling results, further clinical development of xanomeline as a monotherapy was halted due to severe gastrointestinal side effects, including a greater than 50% discontinuation rate, which were likely mediated by non-selective M2 and M3 receptor activation. Furthermore, recent studies in knockout mice with the M4 receptor subtype eliminated suggest that the antipsychotic activity attributed to xanomeline is likely driven primarily by M4 and that a more selective muscarinic activator could potentially convey similar clinical benefits while minimizing gastrointestinal side effects.

Our Solution—CVL-231

CVL-231 is a PAM that selectively targets the M4 receptor subtype. We are developing CVL-231 for the treatment of schizophrenia. Key differentiating features of CVL-231 include:

1. Mechanism of action—M4 receptor subtype selectivity: Based on *in vitro* testing, CVL-231 is >600x more selective for M4 than for M1/3/5 and approximately 360x more selective for M4 than for M2. Recent preclinical studies in knockout mice with the M4 receptor subtype eliminated suggest that the antipsychotic activity attributed to xanomeline is likely driven primarily by M4 and that a more selective muscarinic activator could potentially convey similar clinical benefit while minimizing gastrointestinal side effects associated with activity at M2 and M3 receptors.
2. Receptor pharmacology—PAM: CVL-231 is an orally bioavailable, brain-penetrant small molecule with an approximate nine- to 12-hour half-life. As a PAM of the M4 receptor subtype, CVL-231 is designed to enhance normal neurotransmitter release without producing excessive stimulation. In comparison, full agonists can lead to receptor desensitization and an ultimate loss of efficacy. In addition, the available preclinical data for CVL-231 suggest a low potential for drug-drug interactions, which is important in indications like schizophrenia where several drugs are often used in combination.

3. Clinical and preclinical evaluation: CVL-231 demonstrated robust activity in multiple preclinical psychosis models, including potential benefit in improving cognitive endpoints. Our development plan is informed by thorough *in vitro* and *in vivo* PK and PD characterization of CVL-231 as well as data from competitive muscarinic compounds. CVL-231 has been evaluated in a Phase 1 SAD trial in healthy volunteers. We are currently conducting a Phase 1b MAD trial to assess the PK and PD of CVL-231 in patients with schizophrenia.

We believe CVL-231 has the potential to be a new generation antipsychotic that could become the treatment of choice for schizophrenia, if approved. Each relapse in schizophrenia marks a progression in disability, leading physicians to prioritize efficacy in selecting first-line therapy. With the potential for antipsychotic activity that we believe may exceed existing atypical antipsychotics, CVL-231 could become an attractive option in newly diagnosed patients. Additionally, given its potentially improved tolerability profile relative to atypical antipsychotics, CVL-231 could displace existing options for patients where there is evidence of treatment-related side effects.

Success in treating psychosis in schizophrenia would potentially open the door to further development in dementia-related psychosis as well as treating the cognitive deficits associated with these diseases. Subject to the results of the ongoing Phase 1b MAD trial, we anticipate initiating a PK trial in healthy elderly volunteers.

Clinical Trials

CVL-231 has been evaluated in 17 healthy volunteers in a Phase 1 SAD trial. CVL-231 was generally well tolerated with no serious adverse events, or SAEs, or treatment-related subject discontinuations. However, some moderate treatment-emergent increases in heart rate and blood pressure were observed following single doses of CVL-231 (>10 mg) that were generally transient and returned to baseline in 24 hours. These increases may be mediated by CVL-231's activity on the M4 receptor subtype, either peripherally or centrally; increased heart rate has been observed in some other antipsychotic drugs due to their anticholinergic properties. Preclinical safety and pharmacology studies have suggested that the increases in heart rate and blood pressure were reversible and can be monitored. In a 13-week canine toxicology study of CVL-231, heart rate increases were observed to be mostly resolved through sustained dosing. This effect was further supported by evaluation of our full M4 agonist product candidate in rodents, in which increases in heart rate and blood pressure were attenuated with repeat dosing. CVL-231 has also been tested in several preclinical models that have been used to characterize known antipsychotic medications. The overall results from our preclinical studies showed the potential of CVL-231 to reduce dopaminergic hyperactivation without resulting in catalepsy, or muscular rigidity. In October 2019, we commenced a Phase 1b MAD trial to evaluate the potential safety, tolerability, PK and preliminary PD of repeated daily doses of CVL-231 in patients with schizophrenia.

Phase 1 Single Ascending Dose Trial

In December 2017, Pfizer completed Trial C2561001, a double-blind, four-period crossover, SAD, Phase 1 trial designed to evaluate the safety and tolerability of CVL-231.

Seventeen healthy volunteers were enrolled into two cohorts. In Cohorts 1 and 2, each subject underwent four treatment periods, receiving three doses of CVL-231 and placebo. CVL-231 and placebo were administered as either an oral solution or suspension. Doses were escalated in each cohort until the maximal tolerated dose was achieved or the maximum pre-defined human exposure limits were reached or projected to be reached. There was a washout period of at least seven days between administered doses. An interleaving cohort design was used such that Cohort 1 received a combination of three of the following doses of CVL-231: 0.3 mg, 3 mg, 15 mg or 30 mg. Cohort 2 received a combination of three of the following doses of CVL-231: 1 mg, 10 mg fed, 10 mg fasted or 30 mg.

In this trial, CVL-231 was observed to be generally well tolerated with no SAEs or treatment-related subject discontinuations. In subjects receiving CVL-231, the most frequently reported adverse events, or AEs, all of which were treatment-related, were fatigue, dizziness, headache and dry mouth. The majority of treatment-related AEs were mild in severity. The moderate treatment-related AEs, which were generally only observed in the highest dose tested, were sinus tachycardia (30 mg); orthostatic hypotension (30 mg); headache (0.3 mg and 30 mg); back pain (30 mg); and postural dizziness (30 mg).

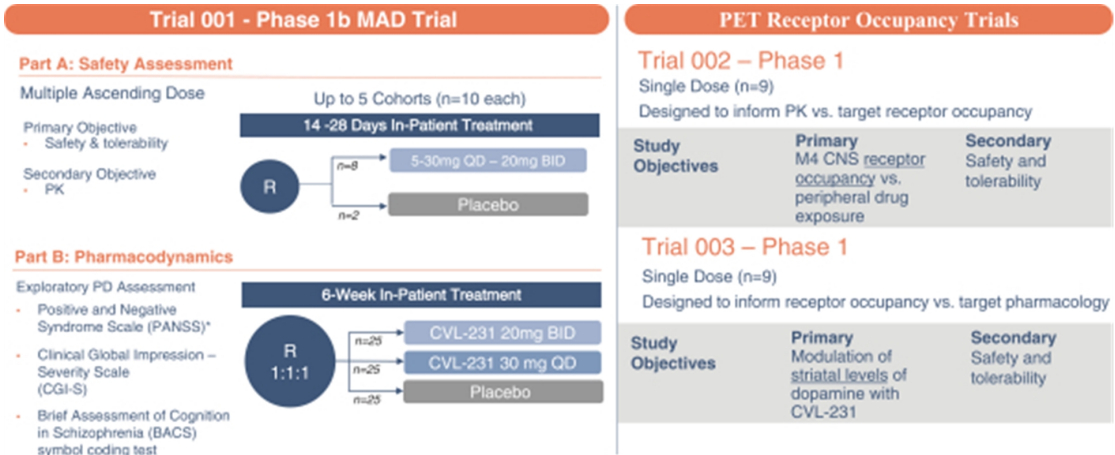
During the course of this trial, moderate treatment-emergent transient increases in blood pressure and pulse rate were observed, which were dose-related and most prominent at the 30 mg dose. Specifically, changes in both supine systolic blood pressure and supine diastolic blood pressure were noted, with mean increases from baseline up to 16.8 mm Hg and 13.0 mm Hg, respectively, in the first 30 mg dose cohort. Similarly, dose-related increases from baseline in supine pulse rate of up to 22.2 bpm were observed in the first 30 mg dose cohort. These observed cardiovascular changes were asymptomatic and transient in nature, generally peaking within one to four hours following an oral dose before being generally resolved within 24 hours without intervention. There was also an AE of orthostatic hypotension that occurred in one subject receiving 30 mg of CVL-231 that was considered by the investigator to be moderately severe and related to treatment. Standing blood pressure values resolved approximately two hours later without intervention. The results from this trial highlight the need to further assess the observed changes in heart rate and blood pressure in a future clinical trial of CVL-231. Preclinical safety and pharmacology studies showed that increases in heart rate and blood pressure were reversible, can be monitored and, in the case of our full M4 agonist product candidate, were observed to be mostly resolved through sustained dosing. We believe these effects can be mitigated through dose titration, which we have incorporated into our ongoing Phase 1b trial.

Preclinical Studies

CVL-231 was tested in several preclinical models that have been used to characterize known antipsychotic medications. The overall results from our preclinical studies showed the potential of CVL-231 to reduce dopaminergic hyperactivation without resulting in catalepsy. In a mouse study, CVL-231 significantly decreased both spontaneous and amphetamine-induced hyperlocomotion activity to levels similar to haloperidol, which is considered one of the most potent antipsychotics. Furthermore, in a rat pre-pulse inhibition model, an electrical deficit model translatable to patients with schizophrenia, CVL-231 demonstrated a dose-dependent improvement in amphetamine-induced deficits. In order to further explore the potential to affect other symptoms of schizophrenia, like cognitive impairment, CVL-231 was evaluated in a study in rats that measured various aspects of memory function. The results showed improvement in both episodic and working memory, suggesting a potential opportunity for CVL-231 to be differentiated compared to existing medications for schizophrenia.

Ongoing and Planned Clinical Trials

We are currently conducting a Phase 1b MAD trial to assess the PK and PD of CVL-231 in patients with schizophrenia. We also plan to conduct two PET receptor occupancy trials in healthy volunteers to inform dose levels for our later-stage clinical trials. The below diagram summarizes the designs of these trials:



We are currently conducting a two-part, Phase 1b MAD trial to evaluate the safety, tolerability, PK and preliminary PD of repeated daily doses of CVL-231 in patients with a primary diagnosis of schizophrenia per the Diagnostic and Statistical Manual of Mental Disorders, or DSM-V.

The objectives of Part A of the trial are to characterize physiological effects, identify any dose-limiting tolerability effects, and to identify the maximum tolerated dose of CVL-231 in patients with schizophrenia. The measures used for this evaluation include treatment-emergent AEs, ECG results, vital signs measurement, clinical laboratory tests, physical and neurologic exams, suicidality as assessed by the Columbia-Suicide Severity Rating Scale, or C-SSRS, and extrapyramidal symptoms based on the Simpson-Angus Scale, Abnormal Involuntary Movement Scale and Barnes Akathisia Rating Scale, or the SAS, AIMS and BARS assessments.

Once a maximum tolerated dose and optimal dosing regimen are identified in Part A of the trial, further safety, PK and preliminary PD will be examined in Part B. The measures used for this evaluation will include change from baseline in PANSS total score and subscales (negative, positive and general psychopathology), the Clinical Global Impression of Severity, or CGI-S, and the Brief Assessment of Cognition in Schizophrenia, or BACS, symbol coding test. PANSS is a widely used and validated measure of the severity of the core positive and negative symptoms associated with schizophrenia, as defined by the DSM-V. CGI-S is included as a supplementary scale to provide a global assessment of clinical status. The symbol coding test of the BACS is a highly sensitive measure of cognitive defects in patients with schizophrenia and is included as an exploratory measure to evaluate cognition.

At screening, patients in Part A must have stable schizophrenia symptoms as demonstrated by a CGI-S score of ≤ 4 (normal to moderately ill) and a PANSS total score of ≤ 80 . The PD effects of CVL-231 on the core symptoms of schizophrenia will be evaluated in Part B. As such, patients with more severe disease, defined as a CGI-S score of ≥ 4 (moderately to severely ill) and a PANSS total score of ≥ 80 at screening and who are experiencing an acute exacerbation of psychosis, will be included in Part B. Key exclusion criteria include patients with schizophrenia who were considered resistant or refractory to antipsychotic treatment, which will help ensure that the trial population will only include patients who are likely to demonstrate a response to antipsychotic treatment. All patients in both parts of the trial must be washed out of their current antipsychotic medications to participate in the trial.

In Part A, one of the cohorts will be enrolled to determine the safety and tolerability of a gradual dose titration over one week to reach a target dose of 20 mg BID of CVL-231. Each cohort in Part A will target to have 10 patients randomized on a 4:1 basis to receive treatment with CVL-231 or placebo.

In Part B, approximately 75 subjects will be randomized in a 1:1:1 ratio to CVL-231 at a dose of 20 mg BID, 30 mg QD, or placebo for a total of 6 weeks.

The cohorts and dosing of this trial are summarized below:

| Cohort | Proposed Dose(s) | Duration | Number of subjects |
|---------------|------------------------|----------|---|
| Part A | | | |
| Cohort 1 | 5 mg/day | 14 days | 10 (8 active, 2 placebo) |
| Cohort 2 | 10 mg/day | 14 days | 10 (8 active, 2 placebo) |
| Cohort 3 | 20 mg/day | 14 days | 10 (8 active, 2 placebo) |
| Cohort 4 | 5 mg BID | 3 days | |
| | 10 mg BID | 4 days | |
| | 20 mg BID | 21 days | 10 (8 active, 2 placebo) |
| Cohort 5 | 30 mg/day | 14 days | 10 (8 active, 2 placebo) |
| Part B | | | |
| Cohort 6 | 30 mg/day 20 mg BID | 6 weeks | Approximately 75 total (approximately 25 subjects each of CVL-231 30 mg/day, CVL-231 20mg BID, and placebo) |

Abbreviations: BID = twice daily.

The doses and dosing schedules selected for CVL-231 in this trial were based on the safety and tolerability data and PK profile of CVL-231 from the Phase 1 SAD trial and emerging data from completed cohorts of the ongoing trial. The targeted maximum dose level of 40 mg/day, administered as 20 mg BID, in the MAD trial is based on safety and PK data from the ongoing multiple dose study and safety margins derived from the nonclinical program, including three-month toxicology data and genetic toxicity data. The 20 mg BID and 30 mg QD doses are projected to provide sufficient target coverage and the ability to quickly move into later stage development with appropriate doses.

Results from this Phase 1b trial will inform the further development of CVL-231 in two critical ways: Part A will evaluate safety, tolerability, maximum tolerated dose and ability to mitigate cardiovascular effects in the target population of patients with schizophrenia and Part B will provide a preliminary evaluation of the PD characterization and exploratory proof-of-mechanism evidence of antipsychotic activity of CVL-231 when administered for 42 days in patients with acute symptoms of schizophrenia. Together, these data will provide evidence to support the design of a future proof-of-concept study of CVL-231 in schizophrenia. Data from this trial is expected mid-year 2021.

Planned PET Receptor Occupancy Trials

We also plan to conduct two PET receptor occupancy trials in healthy volunteers to understand the target receptor occupancy and PD of CVL-231. The first trial will evaluate M4 receptor occupancy in various brain regions, using CVL-231 in combination with an M4 PET ligand. This trial will link M4 receptor subtype occupancy with CVL-231 dose/plasma concentration levels. The second trial will evaluate the modulation of striatal levels of dopamine resulting from doses of CVL-231. Reductions in dopamine signaling are believed to be one of the key drivers of antipsychotic effects of currently available medications and are thought to be mediated through antagonism of dopamine receptors. These emerging data will inform dose levels for our later-stage clinical trials and provide data to help us assess the relationship between exposure of CVL-231 to changes in CNS dopamine levels.

Darigabat (formerly CVL-865)

We are developing darigabat for the treatment of both epilepsy and anxiety. Darigabat was rationally designed as an orally bioavailable, twice-daily PAM that selectively targets the α -2/3/5 subunits of the GABA_A receptor. We believe that by having minimal activity via the α -1 subunit-containing GABA_A receptor, darigabat can minimize the negative side effects of sedation and potential for tolerance and addiction seen with traditional non-selective GABA_A receptor modulators, such as BZDs. To our knowledge, darigabat is the only α -2/3/5-selective GABA_A receptor PAM being evaluated in clinical trials for epilepsy. Based on extensive clinical and preclinical data generated to date, including positive data from a Phase 2 proof-of-principle photoepilepsy trial, we initiated REALIZE, a Phase 2 proof-of-concept trial in patients with focal epilepsy, in the second half of 2020, with data expected in the second half of 2022. The focal epilepsy population is the largest subpopulation of epilepsy patients and is often studied to establish proof-of-concept in the development of an AED. Concurrently, we also initiated a Phase 1 proof-of-principle trial for acute anxiety in healthy volunteers in the second half of 2020, with data expected in the second half of 2021.

Epilepsy Background

Epilepsy is a chronic disorder of the CNS that is characterized by recurrent, unprovoked seizures arising from abnormal electrical discharges in the brain. This may result in alterations of consciousness, involuntary movement or altered sensations. Epilepsy may be related to a brain injury or heredity, but often the cause is unknown. A person is diagnosed as having epilepsy when they have had at least two unprovoked seizures. Epileptic seizures are categorized in two major groups: generalized onset seizures and focal onset seizures. Generalized onset seizures begin with a widespread electrical discharge that involves both sides of the brain at once. Focal onset seizures begin with an electrical discharge in one limited area of the brain.

According to the National Institute of Neurological Disorders and Stroke and the Epilepsy Foundation, approximately 65 million people suffer from epilepsy worldwide. An estimated 57% of all patients with epilepsy experience focal onset seizures while the remaining patients are classified as either having generalized onset seizures (32%) or unknown onset seizures (11%).

The current standard of care for epilepsy is treatment with one or more AEDs, which act through diverse mechanisms of action to reduce abnormal electrical activity in the brain. Example mechanisms include voltage-gated ion channel inhibitors, presynaptic proteins and neurotransmitter receptors such as GABA_A receptors. Some AEDs have multiple mechanisms and some have only one known mechanism, but many AEDs have dose-limiting side effects and tolerability issues and some patients on AEDs may continue to experience ongoing seizures despite treatment.

Treatment initiation typically starts with a single AED, with dose escalation until seizure control is achieved or AEs become intolerable. Levetiracetam (Keppra), carbamazepine or lamotrigine are often used as a first-line therapy among newly diagnosed patients. Patients who do not respond to monotherapy are started on adjuvant therapy with a preference for a drug with a different mechanism of action. Adding on or switching to new therapies is driven by breakthrough seizures, which indicate suboptimal efficacy, and tolerability issues. Shortcomings of available therapies include adverse effects such as sedation, ataxia (the presence of abnormal, uncoordinated movements), cognitive impairment, agitation, weight gain and tolerance.

Despite the existence of over 30 approved AEDs, approximately 30% of epilepsy patients fail to achieve seizure control even with the use of two or more AEDs (whether as monotherapy or in combination), which the International League Against Epilepsy defines as being drug-resistant. Inability to control seizures may result in severe disability, inability to retain employment and increased rates of mortality. Sudden unexpected death in epilepsy, or SUDEP, is the leading cause of death in patients with uncontrolled epilepsy.

BZDs have been important agents in the management of epilepsy for over 50 years. Of currently available therapies, BZDs are highly efficacious AEDs and may be administered via multiple routes. However, their use is primarily limited to acute or rescue treatment because they are associated with the development of tolerance resulting from repeated use, side effects such as cognitive impairment and sedation, as well as the development of physical and psychological dependence. BZDs commonly used for the acute management of seizures include clonazepam, clorazepate, diazepam, lorazepam, midazolam and clobazam. More than 10 BZDs are available and may be prescribed for treatment of seizures. Clobazam and clonazepam are BZDs approved for chronic adjunctive treatment of seizures associated with Lennox-Gastaut Syndrome, a rare childhood form of epilepsy. Given their drawbacks, including debilitating side effects, risk of withdrawal and development of tolerance, BZDs are not typically prescribed for chronic treatment of focal epilepsy or generalized epilepsy.

GABA is the main inhibitory neurotransmitter that dampens down neuronal hyperexcitation through hyperpolarization. GABA_A receptors are comprised of five subunits and are classified into three major groups (alpha, beta and gamma) and several minor groups. BZDs are non-selective PAMs of the GABA_A receptor, enhancing the effect of GABA_A receptors containing alpha-1/2/3/5 subunits. Alpha-1 subunit-containing GABA_A receptors are broadly expressed throughout the brain and their modulation is believed to underlie many tolerability issues associated with BZD use (including sedation, motor and cognitive impairment) and contribute to desensitization and tolerance. In preclinical studies, the sedative effects of BZDs have been attributed to alpha-1 containing receptors. The role of alpha-1 in sedation is further supported by the clinical use of alpha-1 selective non-BZD Z-drugs such as zolpidem, which are used to treat insomnia. Meanwhile, alpha-2/3/5 containing GABA_A receptors are expressed in more discrete brain regions, primarily within the cortical and thalamic neural networks. In preclinical studies, the anticonvulsant effects of BZDs have been attributed to alpha-1/2, the anxiolytic effects to alpha-2/3, analgesic activity to alpha-2/3/5 and some of the effects on memory function to alpha-5. As such, we believe selectively targeting the alpha-2/3/5 subunits present an attractive treatment option for epilepsy.

Anxiety Background

Anxiety disorders are the most common form of mental illness in the United States, affecting over 45 million adults or 15% of the US population. Globally, over 280 million people are impacted by an anxiety disorder of some kind. The most common types of anxiety disorders include obsessive-compulsive disorder, post-traumatic stress disorder, social anxiety, panic disorder, and generalized anxiety disorder, or GAD. GAD, in particular, is a chronic condition characterized by excessive anxiety and worry that is out of proportion to actual context and causes significant distress or functional impairment. GAD is a common disorder affecting approximately 5.7% of individuals at some point in their life, with approximately one-third of cases considered to be severe. Rates of full remission have been observed to be low, with recovery rates of less than 60% after a 12-year follow-up. In clinical trials of approved treatments, the rates of remission observed are typically less than 50%. The social impact of anxiety disorders includes increased risk of absenteeism, increased risk of suicide and high healthcare costs.

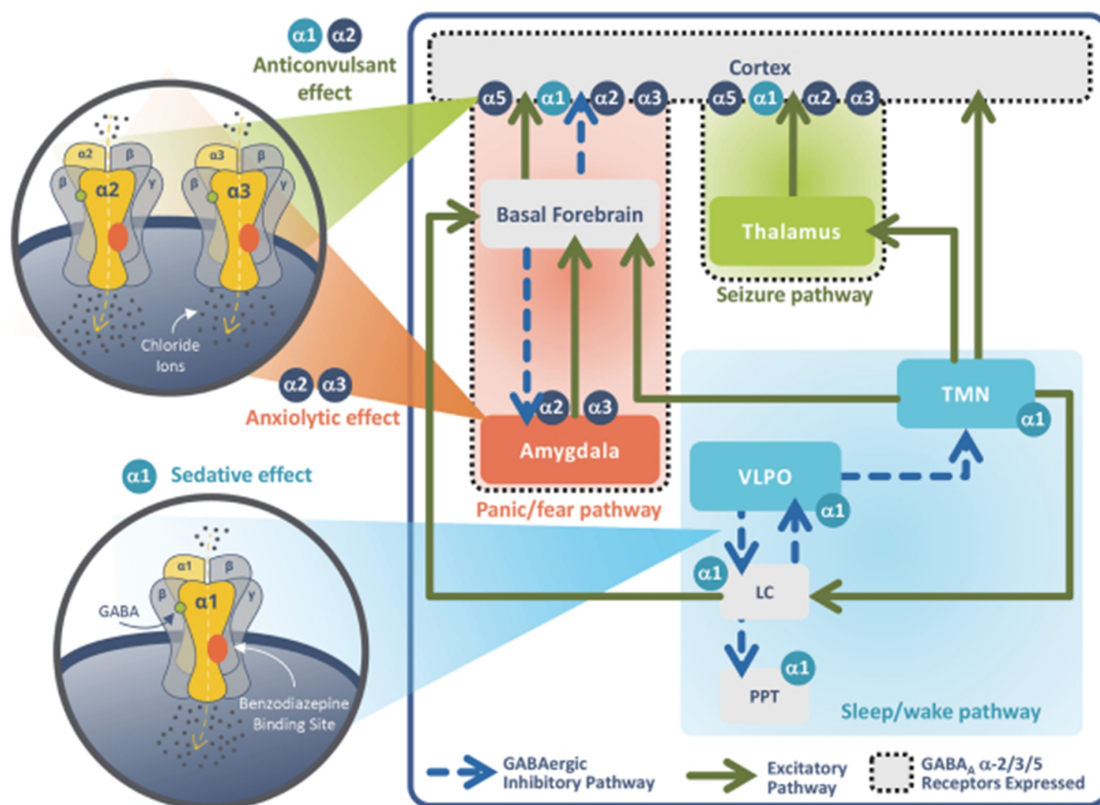
Treatment for anxiety typically consists of a combination of cognitive behavioral therapy and medication. First-line medications for anxiety include antidepressants such as selective serotonin reuptake inhibitors, or SSRIs, serotonin/norepinephrine reuptake inhibitors, or SNRIs, and buspirone, a serotonin 5HT_{1A} receptor agonist. SSRIs, SNRIs and buspirone are used chronically, but they provide only modest relief and their onset of action is slow, taking up to four or more weeks before providing symptom relief. BZDs, which are broad spectrum GABA_A receptor modulators, are known to have strong anxiolytic activity. While highly efficacious, tolerance along with known side effects of BZDs, such as sedation and cognitive impairment, as well as the development of physical and psychological dependence limit their use to short-term treatment or acute anxiety attacks. Due to a lack of sufficient treatment options, diazepam, clonazepam, lorazepam and alprazolam remain commonly prescribed anxiolytics despite their shortcomings. BZDs are often prescribed in combination with SSRIs and SNRIs to provide symptom relief while waiting for those medications to take effect. In addition, treatment-resistant patients are adjunctively administered BZDs despite the potential for abuse and symptom exacerbation.

We believe that by selectively targeting the alpha-2/3/5 subunits of the GABA_A receptor, darigabat has the potential to provide fast-acting anxiolysis while minimizing tolerability issues, such as sedation and cognitive impairment, risk of abuse and development of tolerance seen with BZDs. Darigabat has the potential to replace the need for BZDs as an induction therapy while awaiting symptom relief from SSRIs and SNRIs and could also be used chronically, both as monotherapy or in combination with current standard of care.

Our Solution—Darigabat

Darigabat is a selective PAM that targets GABA_A receptors containing alpha-2/3/5 receptor subunits. We are developing darigabat for the treatment of epilepsy and anxiety. Key differentiating features of darigabat include:

1. **Mechanism of action—alpha-2/3/5 containing GABA_A receptor selectivity:** Darigabat is designed to selectively enhance GABA's inhibitory effect at the alpha-2/3/5 subunit-containing GABA_A receptors, which is expected to suppress aberrant overexcitation that underlies epileptic activity. Although darigabat binds to alpha-1 subunit-containing GABA_A receptors, it is *functionally* selective for alpha-2/3/5 subunit-containing GABA_A receptors. Darigabat exhibits significant positive allosteric modulation of alpha-2/3/5 subunit-containing GABA_A receptors (90-140%) but only negligible activity ($\leq 20\%$) at GABA_A receptors containing alpha-1 subunits. Because of its minimal effect on the alpha-1 subunit, we believe darigabat is able to achieve high receptor occupancy within the CNS while potentially reducing the dose-limiting side effects and tolerance associated with alpha-1 containing GABA_A receptors. This mechanism of action is illustrated below:



2. **Receptor pharmacology—PAM:** Darigabat is an orally bioavailable, brain-penetrant, twice-daily small molecule with a novel selectivity profile. Darigabat is designed as a PAM to increase the effect of endogenous GABA without blocking or overexciting normal neural activity and with a lower propensity for development of tolerance. Furthermore, reduced functional activity at alpha-2 subunit-containing GABA_A receptors of darigabat relative to the non-selective BZDs has the potential to minimize receptor desensitization that leads to the development of tolerance. We believe anticonvulsant activity with this optimized activity at alpha-2 subunit-containing GABA_A receptors of darigabat is then achieved potentially through high levels of receptor occupancy due to minimal activity at alpha-1 subunit-containing GABA_A receptors. Based on PET characterization, doses of darigabat used in clinical trials reached at least 80% receptor occupancy without causing dose-limiting AEs. In contrast, non-selective BZDs cause sedation at receptor occupancy levels of approximately 10-20%.

3. **Clinical and preclinical evaluation:** Darigabat has been evaluated in 289 subjects, including healthy volunteers and patients across multiple indications. Across nine prior clinical trials, darigabat was generally well tolerated. In a Phase 1 multiple-dose trial in healthy volunteers, darigabat administration resulted in no reports of sedation and low rates of somnolence compared to that reported with the commonly prescribed BZD lorazepam that generally resolved after titration, even up to dose levels consistent with receptor occupancy of approximately 80%. In addition, darigabat has demonstrated clinical proof-of-principle in a Phase 2 photoepilepsy trial and anti-epileptic activity in multiple rodent models of epilepsy.

Based on these differentiating features, we believe darigabat has the potential for anti-epileptic activity comparable to currently available BZDs but with reduced tolerance, sedation and withdrawal liabilities, which may enable chronic use.

For newly-diagnosed patients, we believe darigabat has the potential to become first-line therapy given the limitations of existing treatments in balancing anti-epileptic activity with acceptable tolerability. For patients on polypharmacy experiencing tolerability issues, darigabat's novel mechanism of action and expected tolerability profile has the potential to enable physicians to replace (after a cross-taper) a higher-risk drug in a patient's regimen. Additionally, for patients on multiple medications who experience breakthrough seizures, the target receptor selectivity and potential improved tolerability profile suggest that darigabat could be added to their current regimen for seizure control.

Pending the results of our planned trials, we believe darigabat could potentially change the paradigm of care for epilepsy, moving GABA_A receptor modulators earlier in the treatment paradigm and from acute therapy to chronic therapy.

Clinical Trials

Darigabat has been evaluated in 289 subjects across nine prior clinical trials in both patients and healthy volunteers. In a Phase 2, double-blind, crossover trial in photoepilepsy patients comparing darigabat to the commonly prescribed BZD lorazepam and to placebo, darigabat demonstrated anti-epileptic activity similar to lorazepam. In this trial, six out of seven patients taking darigabat achieved complete suppression of epileptiform activity evoked by flashing lights. In a Phase 1 trial comparing darigabat to lorazepam, healthy volunteers were assessed using the NeuroCart CNS test battery. Compared to lorazepam, darigabat demonstrated a greater reduction in saccadic peak velocity, a biomarker indicating engagement of selective alpha-2/3 subunit-containing GABA_A receptors, while having reduced effects on motor coordination and cognition. Furthermore, in a Phase 1 MAD trial, darigabat showed no dose-related somnolence, even at dose levels consistent with receptor occupancy of approximately 80%. In addition, across several multiple-dose trials, darigabat has shown no evidence of withdrawal effects, a common problem with BZDs. Along with PK, PD and safety margin analyses, dose selection for trials with darigabat was informed by a Phase 1 PET receptor occupancy trial in healthy volunteers. Taken together, we believe these data suggest that darigabat may have the potential for anti-epileptic activity comparable to currently available BZDs, with reduced sedation, tolerance and withdrawal liabilities. We initiated a Phase 2 proof-of-concept trial in patients with focal epilepsy in the second half of 2020, with data expected in the second half of 2022. Concurrently, we also initiated a Phase 1 proof-of-principle trial for acute anxiety in healthy volunteers in the second half of 2020, with data expected in the second half of 2021.

The table below provides an overview of all clinical trials of darigabat conducted to date, including trials in indications other than epilepsy.

| Trial Number | Phase | Trial End Date | Subjects (Darigabat/Total) | Design |
|---------------------|--------------|-----------------------|-----------------------------------|---|
| B7431001* | Phase 1 | July 2014 | 45/45 | First-in-human single ascending dose in healthy volunteers; NeuroCart CNS battery to assess PD; active control (lorazepam) cohort |
| B7431002 | Phase 1 | July 2014 | 40/50 | Multiple ascending dose in healthy volunteers |
| B7431004(1) | Phase 1 | Aug 2014 | 5/5 | PET single dose in healthy volunteers |
| B7431008 | Phase 1 | Sept 2014 | 12/12 | Food effect single dose in healthy volunteers |
| B7431003(1) | Phase 1 | Nov 2014 | 19/20 | PainCart battery, single dose, crossover with active control (pregabalin) in healthy volunteers |
| B7431006(1) | Phase 2 | Aug 2015 | 74/222 | Placebo- and active-controlled (naproxen), multiple dose in chronic low back pain patients |
| B7431007(1) | Phase 2 | Oct 2015 | 72/90 | Placebo-controlled, multiple dose in generalized anxiety disorder patients |
| B7431005(1) | Phase 2 | Feb 2017 | 7/7 | Placebo- and active-controlled (lorazepam) single dose crossover in photoepileptic patients |
| B7431011(1) | Phase 1 | Feb 2018 | 15/19 | Multiple dose in healthy volunteers |

(1) Most relevant trials discussed in greater detail in the following section.

Selected Darigabat Clinical Trials

Phase 2 Trial in Photoepilepsy

In February 2017, Pfizer completed Trial B7431005, a randomized, placebo- and active-controlled, cross-over, proof-of-principle, Phase 2 trial designed to evaluate the efficacy of darigabat in photoepilepsy using lorazepam as an active control.

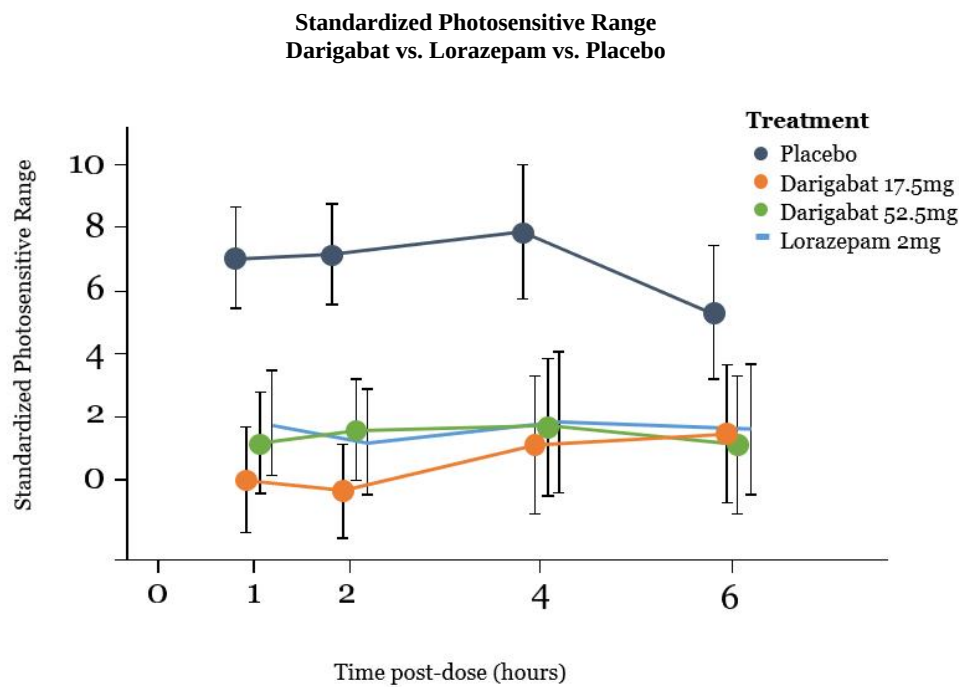
Pharmacological effects in photoepilepsy proof-of-principle trials are correlated with a higher likelihood that positive results will be observed in the clinical epilepsy population. As such, it has historically been utilized as a tool to quantitatively predict efficacy in epilepsy. Doses corresponding to a 50% to 100% response in these proof-of-principle trials for a range of well-precedented and clinically characterized anticonvulsive agents were found to be within two-fold of the minimally efficacious doses used in focal or generalized epilepsy. These data provide confidence in the translatability of the photoepilepsy model to other epilepsy states.

A total of seven patients with documented photoepilepsy were randomized to the four-period crossover trial examining single doses of 17.5 mg and 52.5 mg of darigabat, 2 mg of lorazepam as an active control and placebo, with each patient receiving all treatments in a random order with a one-to-three week washout between treatments. The 52.5 mg dose of darigabat was selected for the trial based on the expectation that it would achieve maximal PD effect in the alpha-2/3 saccadic peak velocity biomarker assessment and maximal receptor occupancy of approximately 80%. The lower 17.5 mg dose of darigabat was expected to achieve approximately 60% receptor occupancy.

Patients were exposed to intermittent bursts of light with different flash frequencies (intermittent photic stimulation) to establish the standardized photosensitivity range, or SPR, at which EEG epileptiform activity (photoparoxysmal response, or PPR) was observed. Flashes were administered at standard frequencies, with the SPR being the range of frequencies over which EEG epileptiform activity occurred. The maximum SPR was 14 with a minimum of 0, where an SPR of 0 indicates complete suppression of EEG epileptiform activity.

The primary endpoint was the average change in SPR over the first six hours post-treatment. As measured by SPR, the mean response of 17.5 mg and 52.5 mg of darigabat compared to placebo in the most sensitive eye condition was -6.2 and -5.4, respectively. The mean response of 2 mg of lorazepam compared to placebo was -5.2. Mean responses for 17.5 mg and 52.5 mg of darigabat and 2 mg of lorazepam were considered similar to each other and statistically significant relative to placebo at the prespecified one-sided 5% level. Results are summarized in the table and chart below.

| Treatment | LSMean (90% CI) | LSMean vs. Placebo (90% CI) |
|-------------------|----------------------|--------------------------------|
| Placebo | 6.80 (5.14 to 8.48) | |
| Darigabat 17.5 mg | 0.57 (-1.12 to 2.26) | -6.23 (-8.60 to -3.86) |
| Darigabat 52.5 mg | 1.38 (-0.29 to 3.04) | -5.42 (-7.78 to -3.06) |
| Lorazepam 2 mg | 1.58 (-0.11 to 3.26) | -5.22 (-7.60 to -2.84) |



The proportion of participants with complete suppression, partial response and no response to intermittent photic stimulation is summarized in the table below. Six out of seven patients had complete suppression of EEG epileptiform activity following receipt of 17.5 mg of darigabat, 52.5 mg of darigabat or 2 mg of lorazepam, whereas two out of seven patients had complete suppression following receipt of placebo. Based on these results, along with PK data and PET receptor occupancy-based modeling, we believe that both doses of darigabat in this trial are within the anticipated therapeutic range for anti-seizure effect.

Summary of Proportion of Participants with Categorical Responses in the Most Sensitive Eye Condition

| Response(a) | Placebo | Darigabat 17.5 mg | Darigabat 52.5 mg | Lorazepam 2 mg |
|----------------------|---------|-------------------|-------------------|----------------|
| Complete suppression | 2/7 | 6/7 | 6/7 | 6/7 |
| Partial response | 0/7 | 0/7 | 0/7 | 0/7 |
| No response | 5/7 | 1/7 | 1/7 | 1/7 |

- (a) Responses defined as follows: Complete suppression: SPR = 0 in all 3 eye conditions at the same time point; Partial response: a reduction in SPR of at least 3 units from baseline for at least 3 time points and no timepoints with at least 3 units of increase, in the most sensitive eye condition, without meeting the complete suppression definition; No response: does not meet complete suppression or partial response definitions.

Consistent with previous trials in healthy volunteers and patients, darigabat was observed to be well tolerated. The most frequently reported AEs in this single-dose trial were somnolence (three subjects each on placebo, 17.5 mg of darigabat and 2 mg of lorazepam and four subjects on 52.5 mg of darigabat) and dizziness (three subjects each on 17.5 mg and 52.5 mg of darigabat and one subject on 2 mg of lorazepam). One of the dizziness AEs and two of the somnolence AEs were moderate in severity. All other somnolence and dizziness AEs were mild in severity. There were no SAEs and no discontinuations due to AEs in this trial. Based on the totality of clinical data for darigabat to date, including the Phase 1 MAD trial in healthy volunteers described below, we believe that titration can help mitigate effects on somnolence and dizziness.

In summary, in this trial, darigabat demonstrated pronounced anticonvulsant activity on par with lorazepam, in patients with photoepilepsy, a clinical epilepsy model translationally relevant to other epilepsy populations.

Phase 1 Single Ascending Dose Trial with Pharmacodynamic Assessments

In July 2014, Pfizer completed Trial B7431001, a first-in-human Phase 1 trial designed to characterize the safety, tolerability, PK and PD of single doses of darigabat in healthy adult volunteers between 18 and 55 years old.

The primary objectives of this trial were to evaluate the safety and tolerability of escalating single oral doses of darigabat, as well as the PK and PD of single doses of darigabat alone and in combination with lorazepam in healthy volunteers. PD effects were assessed using NeuroCart, a test battery which assesses a range of CNS functions, both objective, such as neurophysiologic and cognition, and subjective, such as memory and mood. NeuroCart can be used to correlate a compound's PD activity and PK and provide evidence to test hypotheses regarding mechanism of action. NeuroCart PD measurements rationally selected for this trial were based on known GABA_A receptor pharmacology and included:

- Saccadic peak velocity, or SPV, where a reduction is an indicator of desired alpha-2/3 pharmacology
- Body sway and adaptive tracking to assess undesired alpha-1 pharmacology related to sedation
- Visual-verbal learning test, or VVLT, to assess memory impairment and undesired alpha-1/5 pharmacology

The trial was conducted in two parts. The first part of the trial (Cohorts 1, 2 and 3) was a double-blind, randomized, placebo-controlled, crossover, SAD trial to evaluate the safety, tolerability, PK and PD of single escalating doses of darigabat. Eight subjects in each cohort received darigabat and the remaining two subjects received placebo. Cohorts 1 and 2 were dosed with the first 10 dose levels of darigabat (0.04 mg to 15 mg). Cohort 3 evaluated doses from 25 mg to 100 mg.

The second part of the trial (Cohort 4) was conducted to further explore and compare NeuroCart PD effects of darigabat alone, 2 mg of lorazepam alone and the combination of darigabat with 2 mg of lorazepam. This was done to explore the PD interaction between the two drugs. Part 2 of the trial was designed as a five-period placebo- and active-controlled crossover trial. Fifteen subjects each received placebo, 2 mg of lorazepam, 15 mg of darigabat, 65 mg of darigabat and 65 mg of darigabat in combination with 2 mg of lorazepam in accordance with one of the sequences shown in the table below.

Treatment Sequences for Cohort 4

| Sequence | Period 1 | Period 2 | Period 3 | Period 4 | Period 5 |
|----------|---|---|---|---|---|
| 1 (n=3) | Placebo | Lorazepam 2 mg | Darigabat 15 mg | Darigabat 65 mg | Darigabat 65 mg + Lorazepam 2 mg |
| 2 (n=3) | Lorazepam 2 mg | Darigabat 65 mg | Darigabat 65 mg + Lorazepam 2 mg | Darigabat 15 mg | Placebo |
| 3 (n=3) | Darigabat 15 mg | Darigabat 65 mg + Lorazepam 2 mg | Lorazepam 2 mg | Placebo | Darigabat 65 mg |
| 4 (n=3) | Darigabat 65 mg | Darigabat 15 mg | Placebo | Darigabat 65 mg + Lorazepam 2 mg | Lorazepam 2 mg |
| 5 (n=3) | Darigabat 65 mg + Lorazepam 2 mg | Placebo | Darigabat 65 mg | Lorazepam 2 mg | Darigabat 15 mg |

Lorazepam has been studied extensively using NeuroCart and has a distinctive signature of its GABA_A receptor related pharmacology, including effects on saccadic eye movements as well as undesired effects on alertness, memory and body sway, many of which are believed to be mediated through alpha-1 pharmacology.

PD activity of darigabat in this trial was observed for the desired alpha-2/3 driven pharmacology, as demonstrated by SPV and surpassed the effect size demonstrated by lorazepam. The undesired, primarily alpha-1-driven pharmacology, as demonstrated by body sway and adaptive tracking, was observed to be less for darigabat than with lorazepam. The full results from this trial are summarized below:

- Effects on alpha-2/3 pharmacology: SPV decreased with increasing doses of darigabat. In Cohort 4, the decrease in SPV for each of darigabat 15 mg and 65 mg and for the combination of 2 mg of lorazepam and 65 mg of darigabat was statistically significantly greater than for 2 mg of lorazepam alone.
- Effects on alpha-1 pharmacology (associated with sedation): Body sway increased with increasing doses of darigabat up to 10 mg, and appeared to plateau between 10 mg and 100 mg. In Cohort 4, the increase in body sway was statistically significantly lower for 15 mg of darigabat than for 2 mg of lorazepam. Adaptive tracking decreased with increasing doses of up to 25 mg of darigabat, and appeared to plateau between 25 mg and 100 mg. In Cohort 4, there was a statistically significant reduction in the impairment on adaptive tracking for both 15 mg and 65 mg of darigabat and the combination of 2 mg of lorazepam and 65 mg of darigabat when compared to 2 mg of lorazepam alone.

- Effects on alpha-1/5 pharmacology (associated with memory and cognition): For VVLT, the numbers of correct words were decreased on both the immediate recall and delayed recall for both doses of darigabat relative to placebo. These effects were not statistically significantly different to 2 mg of lorazepam. The numbers of incorrect words on both immediate and delayed recall were similar to placebo for doses of darigabat and significantly lower than 2 mg of lorazepam. The number of correct words recognized after a period of time (delayed recognition) was decreased relative to placebo but were higher than 2 mg of lorazepam (statistically significant for darigabat 15 mg). Average reaction time and the standard deviation of reaction time for correct words generally increased with doses of darigabat but by less than that observed for 2 mg of lorazepam in Cohort 4.

Dose-response effects of darigabat were also observed on saccadic reaction time, saccadic inaccuracy, VAS alertness and Average Reaction Time for Correct Words.

Results from Part 2 of the trial, illustrated in the table below, demonstrated that, overall, darigabat showed a differentiated profile to lorazepam. Relative to 2 mg of lorazepam, 15 mg of darigabat demonstrated a larger decrease in SPV, corresponding to desired alpha-2/3 pharmacology, and a smaller impairment versus lorazepam on body sway, adaptive tracking and memory tests, corresponding to undesirable alpha-1/5 pharmacology seen with BZDs. The combination of darigabat and lorazepam (not illustrated) showed greater decrease in SPV and less reduction in adaptive tracking in comparison to lorazepam alone, suggesting little PD interaction between the two compounds.

| Relevant Pharmacology | Metric | Lorazepam 2 mg N=15 LS mean difference vs. placebo (95% CI) | Darigabat 15 mg N=15 LS mean difference vs. placebo (95% CI) | Darigabat 15 mg vs. lorazepam 2 mg LS mean difference (95% CI) | Interpretation of Results |
|--|---|--|---|--|--|
| Alpha 2/3 Saccadic Peak Velocity (SPV) | SPV change, degrees per second | -38.6 (-66.2, -11.0) | -72.7 (-99.1, -46.2) | -34 (-61, -7.1)* | Increased alpha 2/3 target activity vs. lorazepam CVL-865 demonstrated a greater reduction in SPV vs. lorazepam |
| Alpha 1 (sedation) Body Sway and Adaptive Tracking | Body Sway, Ln/MM | 0.68 (0.47, 0.90) | 0.38 (0.17, 0.59) | -0.31 (-0.52, -0.09)* | Less undesirable alpha 1 activity vs. lorazepam : Lorazepam had a greater negative impact on coordination and postural deficits vs. CVL-865 |
| | Adaptive Tracking, average performance % | -10.43 (-13.55, -7.31) | -5.17 (-8.28, -2.06) | 5.26 (2.15, 8.37)* | |
| Alpha 1/5 (memory and cognition) Visual Verbal Learning Tests | Immediate Recall – number of correct words | -3.7 (-5.6, -1.7) | -2.7 (-4.7, -0.8) | 0.9 (-1.0, 2.9) | Less undesirable alpha 1/5 activity vs. lorazepam Lorazepam had a greater negative impact on memory and cognition vs. darigabat as shown by immediate and delayed word recall and word recognition |
| | Delayed Recall - number of correct words | -4.9 (-7.3, -2.4) | -3.6 (-6.0, -1.2) | 1.3 (-1.2, 3.7) | |
| | Delayed Recognition- number of correct words identified | -5.9 (-8.4, -3.4) | -1.9 (-4.3, 0.6) | 4.1 (1.6, 6.6)* | |
| | Immediate Recall - number of incorrect words | 1.7 (0.9, 2.5) | 0.1 (-0.7, 0.9) | -1.6 (-2.4, -0.8)* | Lorazepam had a greater negative impact on memory and cognition vs. darigabat as shown by more errors made on immediate and delayed word recall |
| | Delayed Recall - number of incorrect words | 2.2 (1.1, 3.3) | 0.4 (-0.6, 1.4) | -1.8 (-2.9, -0.7)* | |

*difference statistically significant, p<0.05

All doses of darigabat were observed to be well tolerated. All treatment-related and trial-related AEs reported were mild. A maximum tolerated dose was not established and there were no reports of sedation in the trial. The most common AEs following dosing with darigabat were somnolence, dizziness, bradyphrenia, headache, fatigue, elevated mood and orthostatic hypotension.

Phase 1 Multiple Ascending Dose Trial in Healthy Volunteers

In February 2018, Pfizer completed Trial B7431011, a double-blind, randomized trial designed to evaluate the safety, tolerability and PK of repeat oral doses of darigabat in healthy adult volunteers.

Eighteen healthy adult volunteers were enrolled and randomized into two cohorts and received twice daily, or BID, oral doses of darigabat over 21 days. One additional patient was enrolled into the trial but was withdrawn due to non-compliance. Each cohort included seven or eight subjects dosed with darigabat and two subjects dosed with placebo. All subjects received increasing doses of darigabat during the titration period in the first seven days, and the target dose was maintained for the remaining 14 days of the treatment period. In Cohort 1, subjects received 5 mg BID for three days, 12.5 mg BID for four days and 25 mg BID for 14 days. In Cohort 2, subjects received 5 mg BID for two days, 12.5 mg BID for two days, 25 mg BID for three days and 42.5 mg BID for 14 days. Serial PK samples were collected at selected time points on days one and 21. Safety evaluations conducted throughout the trial included AE monitoring, clinical laboratory tests, vital signs, ECGs and physical examinations.

Darigabat was rapidly absorbed with C_{max} achieved at a median T_{max} of one to two hours following both single- and multiple-dose administration. Mean terminal half-life on day 21 was 11.2 hours (25 mg BID) and 11.5 hours (42.5 mg BID), providing a PK rationale for twice-daily dosing.

All reported AEs were mild and a maximum tolerated dose was not identified. As illustrated below, no subjects reported somnolence after the titration period and no somnolence was observed in the 42.5 mg BID group.

| | Reaction | Week 1 (Titration) | Week 2 (Maintenance) | Week 3 (Maintenance) | Follow-Up |
|-------------------|-------------|-----------------------|-------------------------|-------------------------|-----------|
| | No Reaction | 4/4 | 4/4 | 3/4 | 4/4 |
| Placebo | Dizziness | — | — | 1/4 | — |
| | Somnolence | — | — | — | — |
| Darigabat | No Reaction | 5/8 | 7/8 | 8/8 | 8/8 |
| 25mg BID | Dizziness | 2/8 | 1/8 | — | — |
| | Somnolence | 3/8 | — | — | — |
| Darigabat | No Reaction | 4/7 | 6/7 | 6/7 | 6/7 |
| 42.5mg BID | Dizziness | 3/7 | 1/7 | 1/7 | 1/7 |
| | Somnolence | — | — | — | — |

No trial participants experienced withdrawal symptoms when darigabat was discontinued, despite treatment with doses achieving an estimated 80% GABA_A receptor occupancy based on modeling data from the PET trial (B7431004). Changes in micronuclei frequency were measured as an exploratory endpoint in this trial and no changes were observed, providing further evidence that the doses evaluated were below the threshold at which micronuclei formation was observed preclinically. See “—Additional Clinical Trials with Darigabat” below.

Based on the results of this trial, which included a dose that exceeded our top target dose for our ongoing Phase 2 proof-of-concept trial in focal epilepsy, we believe darigabat may selectively enhance alpha-2/3/5 GABAergic activity at high receptor occupancy levels without sedation and minimal somnolence that is associated with alpha-1 subunit-containing receptors activation.

Phase 1 PET Receptor Occupancy Trial in Healthy Volunteers

In August 2014, Pfizer completed Trial B7431004, an open-label Phase 1 trial designed to evaluate the central occupancy of the BZD binding site of GABA_A receptors by using a [¹¹C]Flumazenil PET ligand following single doses of darigabat in healthy adult volunteers. The primary objective was to characterize the relationship between the GABA_A receptor occupancy in the whole brain and the plasma exposure of darigabat. Two doses of darigabat were evaluated in this trial, 10 mg (three subjects) and 65 mg (two subjects). Most of the AEs observed in this trial were mild in severity, with no AEs of severe intensity or SAEs observed. Using data from this trial, modeling was conducted to estimate the receptor occupancy binding in the whole brain at alpha-1/2/3 subunit-containing receptors. We are using the data from this model to inform dosing in our ongoing Phase 2 proof-of-concept trial in focal epilepsy.

Preclinical Studies

In preclinical research, the accelerating rotarod is used to identify negative effects on motor function and time to fall from can be used as a measure of motor coordination. The effect of oral darigabat (1-10 mg/kg), vehicle and diazepam (10 mg/kg) were evaluated in the mouse accelerating rotarod. Time to fall was significantly decreased in mice treated with diazepam, but not for mice treated with darigabat compared to vehicle treatment, indicating a less impairing effect of darigabat, even at maximal receptor occupancy. As humans appear to be highly sensitive to alpha-1-mediated effects, an additional pharmacological approach was used with drug discrimination to determine *in vivo* alpha-1 receptor activity. In a drug discrimination study, rats were trained using an operant food-maintained task to discriminate between the presence and absence of zolpidem, a GABA_A alpha-1-selective PAM. Drugs eliciting 80% or greater responding on the drug-trained lever are classified as producing full generalization to the training compound. Oral 10 mg/kg darigabat did not cause generalization to the sedative zolpidem, even at maximal receptor occupancy, confirming the minimal alpha-1 activity observed *in vitro*.

Preclinical models of epilepsy have had an important role in the discovery of novel AEDs. Darigabat has demonstrated activity in widely used and translationally relevant preclinical models of epilepsy. Pentylenetetrazol, or PTZ, a drug known to induce convulsions, has been used in preclinical studies to investigate seizure phenomenon. Non-selective BZDs block PTZ-induced clonic convulsions, which can be interpreted as a measure of their anti-seizure activity. Oral administration of 0.3 mg/kg, 1 mg/kg, 3 mg/kg and 10 mg/kg of darigabat dose-dependently reduced or inhibited convulsions in PTZ-administered mice. When tested orally at 3 mg/kg and 10 mg/kg, darigabat demonstrated significantly inhibited or reduced seizure severity in amygdala kindled rats, a model of focal epilepsy. Darigabat has also shown robust activity in the genetic absence epilepsy rat from Strasbourg, a model of generalized seizures, and the mesial temporal lobe epilepsy model in mice, a model of focal epilepsy, demonstrating a broad spectrum of activity across multiple preclinical models across different types of epilepsy.

In addition, darigabat demonstrated activity in the elevated plus maze, a behavioral model in mice, widely used to assess the anxiolytic effects of pharmacological agents. An increase in time spent in the open arms reflects anti-anxiety behavior, an outcome that is observed with BZDs. For the darigabat study, comparisons were made between vehicle, diazepam (3 mg/kg) and darigabat following oral doses of 0.1, 0.3, 3.2 and 10 mg/kg. Darigabat (3.2 and 10 mg/kg) produced robust anxiolytic-like effects similar in magnitude to that of diazepam, indicating anti-anxiety behavior of darigabat.

Preclinical good laboratory practices, or GLP, chronic toxicology studies have been completed in rats (26-weeks duration) and canines (39-weeks duration) to enable long-term administration of darigabat at levels that we predict will be clinically relevant. In GLP reproductive toxicology studies, effects on rats and rabbits included malformations that are consistent with a requirement for contraceptive practice to be in place in patients treated with darigabat, which is in line with many other approved AEDs.

Ongoing Clinical Trials

REALIZE: Phase 2 Proof-of-Concept Trial in Focal Epilepsy

We are investigating darigabat in a Phase 2 proof-of-concept trial in 150 patients with focal epilepsy. The focal epilepsy population is the largest subpopulation of epilepsy patients, and it is often studied to establish proof-of-concept in AED development. The diagram below summarizes the design of the trial:

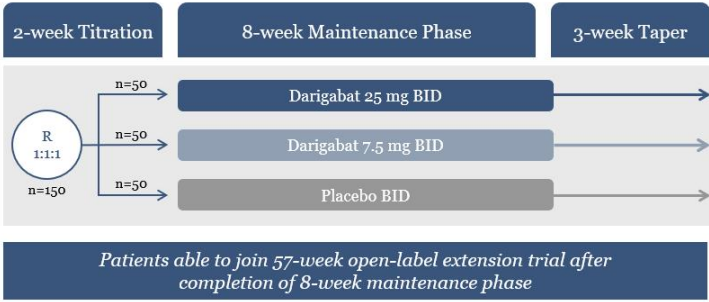
Targeting ~60 sites in 3 countries

Inclusion criteria

- Adults (18-75) with drug-resistant focal onset seizures
- History of 4+ seizures per month for at least 3 months
- 1-3 stable background AEDs

Primary endpoint

- Reduction in focal onset seizure frequency



This trial is designed to be a multi-center, randomized, double-blind, placebo-controlled, parallel-group trial to assess the efficacy, safety and tolerability of darigabat as adjunctive therapy in adult patients with focal epilepsy. The trial population will include patients with an appropriate severity level of disease to allow for the detection of anticonvulsant activity with darigabat. The key inclusion criteria include: (a) men and women 18 to 75 years of age with a diagnosis of epilepsy with focal onset as defined by the International League Against Epilepsy as focal aware, focal impaired awareness and focal to bilateral tonic-clonic seizures for at least two years; (b) drug resistance, defined as lack of seizure control despite the use of at least two prior AEDs; (c) current treatment with at least one but no more than three AEDs and (d) a history of an average of four or more spontaneous and observable seizures per 28-day period for at least three months.

After the eight-week screening period, 150 eligible patients who have suffered at least eight focal onset seizures during the screening period will be randomized 1:1:1 to one of the following three arms: 25 mg BID of darigabat; 7.5 mg BID of darigabat or placebo BID. The two doses of darigabat have been selected based on the safety and tolerability data from previous Phase 1 trials, the receptor occupancy modeling based on PET characterization and the doses used in the Phase 2 proof-of-principle photoepilepsy trial.

Throughout the screening period and over the course of the trial, patients will use an electronic seizure diary to capture their seizure events, which will enable assessment of change in seizure frequency between baseline, as assessed during the screening period, and following treatment. Following the eight-week screening period, eligible patients will enter a 13-week treatment period, which includes (1) a two-week titration phase, which was designed with the knowledge from prior clinical trials that somnolence side effects of darigabat may be mitigated by titration, (2) an eight-week maintenance phase and (3) either a three-week taper period or enrollment into REALIZE OLE, a 57-week open-label extension trial. The three-week taper phase is designed to mitigate possible risks of rebound seizures from too-rapid withdrawal from darigabat.

The primary endpoint to evaluate the efficacy of darigabat will be the reduction in frequency of focal onset seizures during the maintenance phase versus baseline as compared to the placebo group. This will be calculated as $R_{ratio} = (T - B) / (T + B) \times 100$, where T represents the seizure frequency rate per week in the maintenance phase and B represents the seizure frequency rate per week in the baseline screening period. The R_{ratio} is between -100 and 100, where negative values will indicate reduction in seizure rate and positive values indicate increase in seizure rate during treatment. Reduction in seizure frequency using R_{ratio} has been used as the primary endpoint in prior registrational trials of drugs for adjunctive treatment of focal epilepsy. Key secondary efficacy endpoints will include responder rate, defined as the percent of patients who experience at least a 50% reduction in focal onset seizure frequency compared to baseline, and seizure frequency per week over the eight-week maintenance phase. Safety parameters will include assessment of withdrawal symptoms during the taper phase of the trial.

We initiated the REALIZE trial in the second half of 2020, with data expected in the second half of 2022. The totality of the activity and tolerability data that will be generated in REALIZE, the Phase 2 proof-of-concept trial, and REALIZE OLE, the 57-week open-label extension trial, will guide further clinical development of darigabat in epilepsy. We also plan to conduct additional clinical pharmacology studies as appropriate.

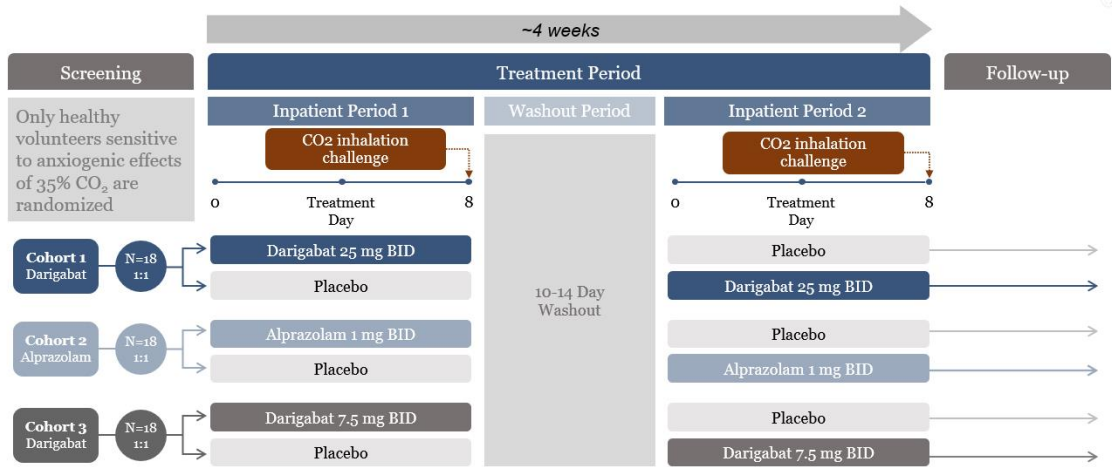
Phase 1 Proof-of-Principle Trial in Acute Anxiety

In the second half of 2020, we also initiated a Phase 1 proof-of-principle trial to evaluate darigabat in acute anxiety in healthy volunteers, with data expected in the second half of 2021. As described below under “—*Additional Clinical Trials with Darigabat*,” Pfizer previously conducted a Phase 2 trial in GAD which was terminated early for non-safety reasons. We believe the prior trial did not achieve sufficient receptor occupancy levels to demonstrate anxiolytic effect because the full therapeutic dose range of darigabat was not explored. The results of our proof-of-principle trial will inform future decisions around the development of darigabat in anxiety.

In this trial, the anxiolytic effects of multiple doses of darigabat will be assessed in a CO₂ inhalation model in a three-cohort, randomized, double-blind, placebo- and active-controlled, crossover trial of healthy volunteers. The PD effect of multiple doses of darigabat and alprazolam will be examined.

The primary objectives of the trial will be to evaluate the anxiolytic effects of multiple doses of darigabat using an experimental medicine model of CO₂ inhalation that is associated with symptoms of anxiety/panic in healthy volunteers and is known to be sensitive to the effects of marketed BZDs. The primary endpoint of this study is change in the Panic Symptoms List, which includes 13 symptoms scored across a range of 0 (absent) to 4 (very intense) that is used to assess panic/anxiety. Safety and tolerability will be evaluated by reports of treatment-emergent AEs, clinically significant changes in ECGs, vital sign measurements, and physical and neurological examination results. Suicidality will be assessed using the C-SSRS. Plasma exposure of darigabat and alprazolam (if required) will also be evaluated.

The trial will be conducted as a randomized, double-blind, placebo- and active-controlled, two-period, two-sequence crossover design comparing multiple doses of high-dose darigabat (25 mg BID), low-dose darigabat (7.5 mg BID), and alprazolam (1 mg BID) against placebo. Three cohorts of 18 subjects each will be enrolled for a total of 54 subjects. Within each of these cohorts, the subjects will be randomized equally to one of two treatment sequences as shown in the diagram below:



This trial is designed with a maximum duration of approximately thirteen weeks and consists of a screening/baseline period, a treatment period and a follow-up period. During the screening/baseline period, subjects will be exposed to the CO₂ challenge and only subjects that are sensitive to the anxiogenic effects of 35% CO₂ double-breath inhalation at screening will be eligible for randomization during the treatment period. Each treatment period will consist of eight days of dosing followed by the CO₂ challenge performed after dosing on Day 8.

The top dose of 25 mg BID was selected to evaluate the therapeutic potential of darigabat. This dose level achieves exposure levels of darigabat comparable to those at which the peak effects in SPV, a reliable biomarker of alpha-2/3 activity, were observed in prior studies and at which receptor occupancy of >80% can be achieved. The lower 7.5 mg BID dose of darigabat is anticipated to have a physiologically significant but submaximal effect based on the same neurofunctional endpoints described above, with an average steady-state exposure level high enough to produce alpha-2 receptor occupancy in the range of up to 60%. Additionally, the lower dose is intended to provide sufficient data to fully understand the relationship between exposures and clinical endpoints to facilitate rational dose selection in future trials.

We initiated this trial in the second half of 2020, with data expected in the second half of 2021. The data that will be generated in this trial will guide further clinical development of darigabat in anxiety.

Additional Clinical Trials with Darigabat

Pfizer conducted multiple additional Phase 1 and Phase 2 trials earlier in the development of darigabat to further characterize its activity in both healthy volunteers and in patients. At the time of these trials, Pfizer had self-imposed a C_{\max} dosing cap in multi-dose clinical trials, which stipulated that plasma exposure should not exceed one-tenth of the no observed adverse effect level, or NOAEL. This dose cap was established as an added precaution based on a micronuclei formation observed in preclinical rat studies and equated to approximately 7.5 mg BID. Because of this dose cap, the full therapeutic dose range of darigabat was not explored in the Phase 2 trials of chronic low back pain and GAD, as discussed below. Subsequently, Pfizer conducted additional genotoxicity studies, which showed that micronuclei formation was observed in rats at doses equivalent to 5x the maximum human clinical dose expected to be studied in our planned trials of darigabat. Based on these data, the FDA provided feedback that permitted our evaluation of doses in clinical trials of up to 50 mg. The Phase 2 trials described below were generally conducted prior to this FDA feedback and thus evaluated doses that we believe were sub-therapeutic based on the results from our NeuroCart and PET receptor occupancy trials.

Phase 2 Generalized Anxiety Disorder Trial

In October 2015, Pfizer concluded Trial B7431007, a double-blind, randomized, placebo-controlled Phase 2 trial designed to evaluate the effect of darigabat on patients with GAD. A total of 90 patients of the planned 384 patients were randomized before Pfizer decided to terminate the trial based on internal portfolio reprioritization.

Darigabat was evaluated as an adjunct to current GAD treatment in a sequential parallel comparison trial in patients with GAD who showed an incomplete response to current standard-of-care pharmacotherapy. Two doses of darigabat, 2.5 mg BID and 7.5 mg BID, were compared to placebo over four weeks of dosing. Neither dose of darigabat differentiated from placebo at week four compared to baseline with respect to the primary endpoint of Hamilton Anxiety Inventory total score or on the secondary endpoint of Sheehan Disability Scale total score. AEs observed in this trial included dizziness, headache and somnolence. However, when measured by the Epworth Sleepiness Score, there was no meaningful increase in sleepiness with either darigabat 7.5 mg, darigabat 2.5 mg or placebo at week 2 and week 4.

A factor potentially contributing to the lack of anxiolytic effect is the potential of the doses evaluated being sub-therapeutic and not achieving sufficient receptor occupancy to drive activity in anxiety. Notably, the 2.5 mg BID and 7.5 mg BID doses used in this trial were consistent with approximately 25% and 60% receptor occupancy, respectively. These receptor occupancy levels resulted in submaximal pharmacology observed in the selective alpha-2/3-biomarker saccadic peak velocity measured in NeuroCart. Based on these observations, we believe that the anxiolytic potential of darigabat has never been investigated at sufficiently high receptor occupancy levels. In addition, this trial enrolled patients with treatment-resistant anxiety, defined as persistent symptoms of anxiety despite treatment with background standard of care therapy. The selection of this particularly treatment-resistant patient population may have contributed to a negative result. As such, we believe the anxiolytic potential of darigabat has not been fully evaluated, and we are exploring higher doses of darigabat in our proof-of-principle Phase 1 trial in acute anxiety.

Phase 1 PainCart Trial in Healthy Volunteers

In November 2014, Pfizer completed Trial B7431003, a randomized, placebo- and active-controlled, four-period crossover, Phase 1 trial designed to provide information on the analgesic potential of darigabat. The PD effect of single 15 mg and 65 mg doses of darigabat was evaluated on evoked pain endpoints in 20 healthy male volunteers and compared to pregabalin (active control) and placebo. In the pressure pain task, increasing pressure was applied using a tourniquet cuff on the calf until the subject indicated their pain tolerance threshold had been reached. In the cold pressor task, subjects placed their non-dominant hands into cold water baths and indicated their pain detection threshold, the point at which sensation changed from non-painful to painful. At the 65 mg dose of darigabat, increases in both cold pressor and pressure pain tolerance thresholds, indicative of analgesic potential were observed. The 15 mg dose of darigabat only showed positive effects in the pressure pain tolerance threshold. These results demonstrate the analgesic potential of darigabat at doses that did not induce significant sedation.

Phase 2 Chronic Low Back Pain Trial

In August 2015, Pfizer concluded Trial B7431006, a double-blind, randomized, placebo- and active- controlled, Phase 2 trial designed to evaluate the effect of darigabat on chronic low back pain. The trial consisted of a one-week, single-blind, placebo run-in phase that was designed to exclude patients with placebo response and suboptimal compliance, followed by a four-week double-blind treatment phase. Patients who continued to meet the eligibility criteria after the placebo run-in period, including level of pain severity and compliance with a daily pain diary and with tablet administration, were randomized to receive either darigabat (administered as 2.5 mg BID for one week followed by 7.5 mg BID for three weeks), naproxen (active control) or placebo BID for four weeks. The primary endpoint was the numerical rating score of low back pain intensity after four weeks of active treatment. The trial was stopped following a planned interim analysis, having met the pre-defined stopping criteria. At this time, a total of 222 patients were randomized and the mean darigabat four-week response on the low back pain intensity was 0.16 units higher (worse) than placebo. The effects of naproxen on low back pain intensity were in-line with expectations based on previous clinical trials in chronic low back pain. Darigabat was generally well tolerated. The most common treatment-related AEs in the darigabat arm were somnolence (five mild and four moderate cases), dizziness (two mild and three moderate cases) and nausea (two mild cases). One patient in this trial experienced an SAE of transient ischemic attack that was determined by the investigator to be related to darigabat. This patient had a history of multiple cardiovascular risk factors and was subsequently diagnosed with Type 2 diabetes mellitus. Factors potentially contributing to the lack of analgesic activity observed in this trial included the use of a potentially sub-therapeutic dose and therefore not achieving sufficient receptor occupancy to drive analgesic activity.

Tavapadon

We are developing our most advanced product candidate, tavapadon, as both a monotherapy and adjunctive therapy to levodopa, or L-dopa, as a treatment for early- and late-stage Parkinson's, a neurodegenerative disorder characterized by the death of dopamine-producing neurons in the brain, respectively. Tavapadon was rationally designed as an orally bioavailable, once-daily partial agonist that selectively targets dopamine D1/D5 receptor subtypes with the goal of balancing meaningful motor control activity with a favorable tolerability profile. To our knowledge, tavapadon is the only D1/D5 partial agonist currently in clinical development for Parkinson's and the first oral D1/D5 agonist to have achieved sustained motor control improvement in Phase 2 trials of Parkinson's. Based on extensive clinical data generated to date, including from three Phase 2 trials, we initiated a registration-directed Phase 3 program beginning in January 2020, which includes two trials in early-stage Parkinson's, known as TEMPO-1 and TEMPO-2, one trial in late-stage Parkinson's, known as TEMPO-3, and an open-label safety extension trial, known as TEMPO-4. We expect initial data from our Phase 3 program to be available beginning in the first half of 2023.

Parkinson's Disease Background

Parkinson's is a chronic neurodegenerative disorder that primarily results in progressive and debilitating motor symptoms, including decreased bodily movement, or hypokinesia, slowness of movement, or bradykinesia, rigidity, tremor and postural instability. Dopamine is a neurotransmitter that drives motor function through a complex interaction between the striatum, the region of the brain responsible for motor control, the thalamus and the motor cortex. Patients with Parkinson's lose dopamine-producing neurons in the substantia nigra, leading to increasingly reduced levels of dopamine in the striatum, which is believed to drive Parkinsonian motor symptoms. Parkinson's is progressive in nature, and the later stages of the disease are marked by progressively lower levels of native dopamine production as an increasing number of dopamine-producing neurons die. The disease typically advances over decades before ultimately causing conditions that can lead to death.

According to the Parkinson's Foundation, approximately one million people in the United States and approximately 10 million people worldwide suffer from Parkinson's. Parkinson's typically develops between the ages of 55 and 65 years and affects approximately 1% of people 60 years of age or older. As the overall global population continues to age, we expect that Parkinson's will afflict an increasing number of patients.

The clinical diagnosis for Parkinson's is well established and is based on the evaluation of both motor and non-motor symptoms. At the time of initial diagnosis, patients usually have a variety of mild, seemingly unrelated symptoms that are collectively non-debilitating. The current standards of care and their shortcomings are well understood. Treatments for early-stage Parkinson's include monoamine oxidase-B, or MAO-B, inhibitors, which reduce the rate of endogenous dopamine metabolism, D2/D3-preferring dopamine agonists, which replace lost dopamine tone, and L-dopa, which increases dopamine concentration. Although these initial treatments for Parkinson's are widely used, each treatment class has limitations that force patients to compromise between tolerability and efficacy.

MAO-B inhibitors are generally well tolerated, but normally demonstrate only modest impact on motor control, limiting use of these drugs to patients with mild symptoms or as an adjunctive therapy. Within two years, approximately 65% of patients on MAO-B inhibitors add medication and approximately 35% of patients on MAO-B inhibitors discontinue use.

Approved D2/D3-preferring agonists are full agonists of the D2/D3 receptor subtypes that are associated with meaningful motor control benefit, but have a challenging side-effect profile, including daytime sedation, or somnolence, compromised impulse control and risk of psychotic symptoms including hallucinations. Within two years, approximately 40% of patients on D2/D3-preferring agonists add medication and approximately 25% of patients on D2/D3-preferring agonists discontinue use. D2/D3 receptor subtypes are widely distributed in multiple non-motor-related brain circuits where over-activation can drive unwanted side effects. For example, repeated activation of D3 receptor subtypes in the reward-related nucleus accumbens may underpin the dysregulation of impulse control. D2/D3-preferring full agonism may also be associated with overexcitation of dopamine receptors, which may lead to increased dyskinesias when used adjunctively with L-dopa. The side effects of D2/D3-preferring agonists can negatively impact quality of life and may outweigh the benefits of treatment, especially in a population of early-stage Parkinson's patients that are otherwise highly functional.

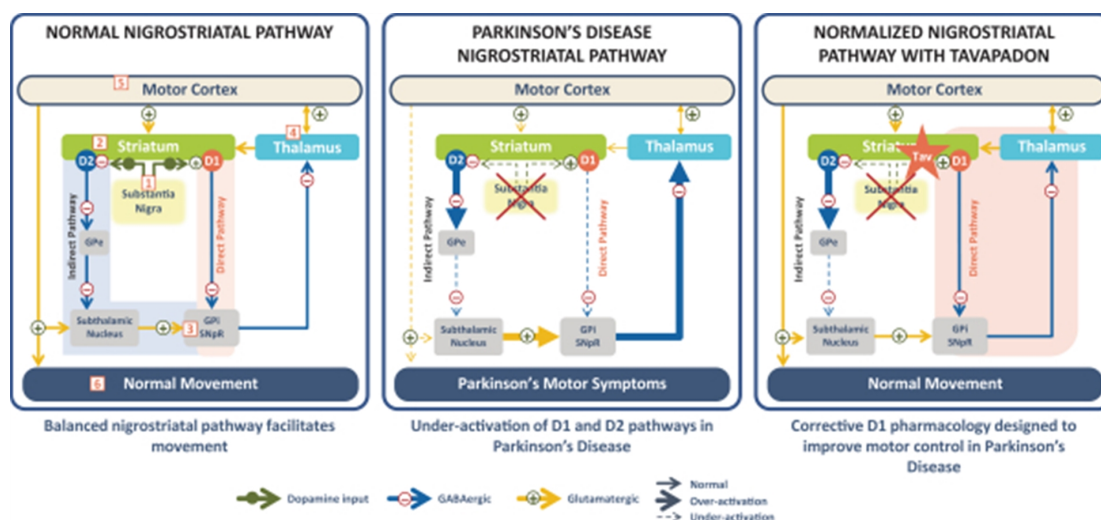
As the disease progresses, patients' treatment regimens increasingly incorporate the use of L-dopa as either monotherapy or in combination with D2/D3-preferring agonists or MAO-B inhibitors. L-dopa is available in a number of formulations, including combinations with carbidopa, which is meant to allow for the use of lower doses of L-dopa to reduce nausea and vomiting side effects. Initial treatment with L-dopa typically results in a period of symptomatic relief for patients because L-dopa therapy transiently increases dopamine levels and affords rapid improvement of motor symptoms. Patients are typically initiated on L-dopa doses of 100 mg administered three times per day.

However, due to its short half-life, L-dopa transiently floods neurons with dopamine, resulting in fluctuating periods of high and low dopamine levels. These large fluctuations can cause the neurons in the brain to alter their response over time. With extended dosing, patients who use L-dopa begin to experience fluctuations between periods of insufficient motor control associated with Parkinson's, known as "off" time, and periods of "on" time when they are not bothered by Parkinsonian motor deficits, but can be plagued by therapy-induced involuntary movement, known as dyskinesias. After starting L-dopa therapy, approximately 40% of patients experience "off" time within three to five years and between 30% and 40% of patients experience dyskinesias within five years. As the disease progresses, patients generally need to increase their L-dopa dose and frequency to maintain motor control. In the most advanced stages of disease, L-dopa doses can be as high as 2,000 mg total per day, requiring up to eight doses of L-dopa per day. This further exacerbates fluctuations and leads to more dyskinesias. The onset and intensity of L-dopa-induced dyskinesias are typically correlated with doses of at least 400 mg per day. The substantial and unpredictable swings between "off" time and dyskinesias can be attributed, in part, to the short half-life of L-dopa. In addition, high doses of L-dopa can be associated with psychosis, which may be further exacerbated by adjunctive use of D2/D3-preferring agonists. In order to delay the onset of such side effects, clinicians may delay recommending L-dopa until patients progress to later stages of Parkinson's.

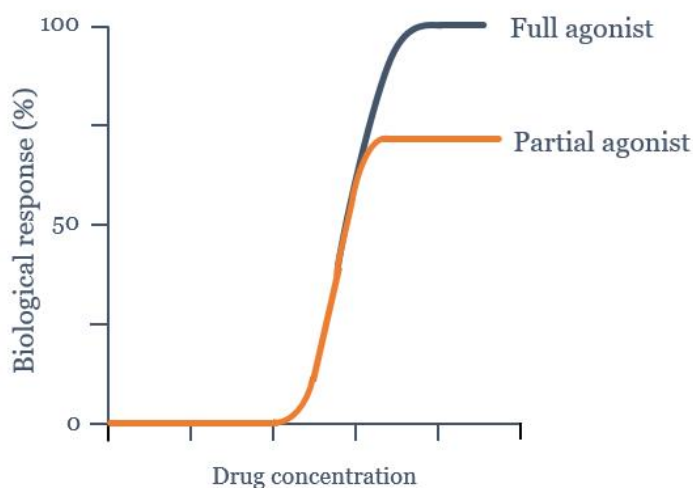
Our Solution—Tavapadon

Tavapadon is a selective partial agonist of the dopamine D1/D5 receptor subtypes expressed within the direct motor pathway that we are developing for the treatment of both early- and late-stage Parkinson's. Key differentiating features of tavapadon include:

1. **Mechanism of action—D1/D5 receptor subtype selectivity:** Dopamine D1/D5 receptor subtypes differentially activate the direct motor pathway of the basal ganglia. Tavapadon is >400x more selective for D1/D5 receptor subtypes than for D2/D3 receptor subtypes. It therefore has the potential to drive motor benefit through targeting of the direct motor pathway while avoiding the side effects of D2/D3-preferring agonists, which target the indirect motor pathway. This mechanism of action as it applies to motor function is illustrated below:



2. **Receptor pharmacology—partial agonist:** Tavapadon is an orally bioavailable, brain-penetrant small molecule with a 24-hour half-life that is designed to enable once-daily dosing by providing sustained motor benefit during the crucial morning wake period and throughout the day. Tavapadon is designed as a partial agonist of the D1/D5 receptor subtypes to (1) act as a surrogate for the natural dopamine production lost as a result of the death of dopamine-producing neurons and (2) to activate the D1/D5 receptor subtypes at levels that maximize motor benefit while reducing the prolonged receptor overexcitation and desensitization caused by full agonists, which can lead to dyskinesias and exacerbation of “off” time resulting from L-dopa. Despite the recognized therapeutic potential of selective D1 activation, earlier attempts by others to develop D1/D5 agonists failed due to limited oral bioavailability and brain penetration, short half-lives and other PK limitations. Tavapadon has been designed with a novel chemical structure that is intended to avoid the shortcomings of prior compounds. Tavapadon’s partial agonism is illustrated below. As compared to a full agonist, tavapadon avoids sustained full activation of D1/D5 receptor subtypes.



3. **Clinical and preclinical evaluation:** Tavapadon has been evaluated in 272 subjects in multiple Phase 1 and Phase 2 trials, including in both the early- and late-stage Parkinson's patient populations required for a broad Parkinson's indication. Across all Phase 1b and Phase 2 trials conducted to date, tavapadon has demonstrated motor control benefit with lower levels of somnolence and impulse control side effects than would be anticipated with D2/D3-preferring agonists. In addition, preclinical studies of tavapadon in a translationally relevant non-human primate model demonstrated robust and persistent activity and reduced incidence of dyskinesias. Tavapadon's lack of abuse potential was also supported by a series of non-human primate studies.

We believe the expected clinical profile of tavapadon has the potential to become a standard of care across the treatment spectrum for both early- and late-stage Parkinson's patients.

High-functioning early-stage Parkinson's patients have adequate motor control on monotherapy with D2/D3-preferring agonists, but the side effects of these therapies are often more debilitating than Parkinson's symptoms. On the other hand, while MAO-B inhibitors have a favorable side effect profile, only a small percentage of early-stage Parkinson's patients are well-controlled on this class of drug due to limited efficacy. We believe that tavapadon's potential for motor benefit similar to D2/D3-preferring agonists with a lower likelihood of their commonly-occurring side effects (such as excessive somnolence, hypotension and impulsive behavior) could ultimately enable tavapadon to displace these agents as the current standard of care among early-stage Parkinson's patients.

For the more advanced Parkinson's patient who is no longer adequately treated with D2/D3-preferring agonists, tavapadon's potential motor control benefit may create a treatment option to address motor control symptoms before adding L-dopa to the regimen. Furthermore, we believe tavapadon could be a preferred adjunctive treatment with L-dopa due to its longer half-life, potentially improved tolerability profile and reduced incidence of dyskinesias.

Finally, for the late-stage Parkinson's patient already experiencing "off" time while on L-dopa, tavapadon use as an adjunctive therapy with L-dopa may provide 24-hour coverage and delay the need for L-dopa dose escalation, thus increasing "on" time without troublesome dyskinesias.

We believe our registration-directed Phase 3 program for tavapadon has the potential to establish tavapadon as the cornerstone treatment across the spectrum of Parkinson's disease therapy—the preferred choice for the newly diagnosed patient and the ideal adjunctive therapy as the disease progresses.

Clinical Trials

As part of an extensive clinical program, tavapadon has been evaluated across nine prior clinical trials, including four Phase 1 trials, two Phase 1b trials and three Phase 2 trials. A total of 272 subjects, including 99 healthy volunteers and 173 patients with Parkinson's, have been exposed to tavapadon.

Tavapadon has demonstrated activity in the treatment of motor symptoms, both as a monotherapy and as adjunct to L-dopa. An open-label, multi-dose, Phase 1b trial of tavapadon demonstrated reduction in motor symptoms at the 15 mg dose, with a magnitude of effect comparable to results seen in the L-dopa arm of the trial and a duration consistent with tavapadon's 24-hour half-life.

In a Phase 2 trial in early-stage Parkinson's, tavapadon demonstrated a statistically significant and clinically meaningful difference from placebo of -4.8 points on the MDS-UPDRS Part III motor score at week 15 of the treatment period. Separation from placebo was observed as early as week three while still in the titration phase. Statistical significance ($p=0.0407$) for this endpoint was achieved despite the trial being terminated early when only 65% of the planned trial population had been enrolled and even though only 42% of the patients who reached the maintenance period had received the top dose of 15 mg. In addition, at week 15, 50% of patients treated with tavapadon reported being "much improved" or "very much improved" on the Patient Global Impression of Improvement, an important qualitative assessment of meaningful change in overall patient condition and well-being.

A Phase 2 trial in late-stage Parkinson's was terminated by Pfizer based on the results of an interim analysis, which determined that the probability of meeting the efficacy criterion for the primary endpoint of improvement in "off" time reduction compared to placebo at week 10 was lower than a pre-specified efficacy hurdle. As explained in more detail herein, we believe the pre-specified efficacy hurdle was a significant threshold to overcome given the limited duration of the trial. Despite the early termination of this trial, tavapadon showed a 1.0 hour improvement versus placebo in "on" time without troublesome dyskinesias at week 10 with a sustained effect observed through week 15, which, while not statistically significant, we and our clinical advisors believe is clinically meaningful.

Across the nine clinical trials conducted to date, tavapadon has consistently demonstrated what we believe to be a favorable tolerability profile as well as a PK profile with a 24-hour terminal half-life. The most commonly reported AEs leading to discontinuation of tavapadon across all the clinical trials were nausea, vomiting, dyskinesia, falling, fatigue and sleep disorder. The occurrence of nausea increased with tavapadon dose and was often related to the rate of titration, which is a well-known occurrence with most dopamine receptor agonists. We believe that these gastrointestinal effects may be mitigated by the slower titration method that we plan to use in our registration-directed Phase 3 program. Headache was the most commonly reported CNS-related event across all clinical trials. Other commonly reported CNS-related AEs included dizziness, somnolence and tremor. The majority of all observed AEs were mild to moderate.

In addition, preclinical studies of tavapadon in the well-established MPTP non-human primate model of Parkinson's demonstrated robust and persistent activity and reduced incidence of dyskinesias relative to L-dopa. Tavapadon's lack of abuse potential was also supported in a series of non-human primate studies.

We believe the results observed in the Phase 2 trials in Parkinson's, together with the tolerability profile demonstrated throughout the clinical program to date, support an encouraging benefit-risk profile and strong rationale for our registration-directed Phase 3 program in Parkinson's as well as tavapadon's potential commercial impact.

The table below provides an overview of all clinical trials conducted to date for tavapadon.

| Trial Number | Phase | Trial End Date | Patients (Tavapadon/ Total) | Design |
|---------------------|--------------|-----------------------|------------------------------------|--|
| B7601001 | Phase 1 | Feb 2014 | 18/18 | Single ascending dose in healthy volunteers |
| B7601002 | Phase 1 | Apr 2015 | 61/77 | Multiple ascending dose in healthy volunteers |
| B7601007 | Phase 1 | Dec 2014 | 9/9 | Single ascending dose in healthy volunteers with an antiemetic |
| B7601006 | Phase 1 | Sept 2017 | 11/11 | CYP3A drug-drug interaction |
| B7601009(2) | Phase 1b | Feb 2016 | 18/18(1) | Placebo-controlled single ascending dose in Parkinson's patients who were receiving L-dopa |
| B7601005(2) | Phase 1b | Mar 2016 | 45/50(1) | Open-label multiple ascending dose in Parkinson's patients with L-dopa |
| B7601003(2) | Phase 2 | Nov 2017 | 85/108(1) | Adjunct with L-dopa in late-stage Parkinson's patients |
| B7601011(2) | Phase 2 | Jan 2018 | 29/57 | Monotherapy in early-stage Parkinson's patients |
| B7601017 | Phase 2 | Oct 2017 | 5/5(1) | Open-label extension for patients in Trial B7601003 |

- (1) Note: Four patients participated in both Trials B7601005 and B7601003; three subjects participated in both Trials B7601009 and B7601005; four patients participated in both Trials B7601017 and B7601003.
- (2) Most relevant trials discussed in greater detail in the following section.

Our prior and future trials with tavapadon in Parkinson's utilize three scales for patient selection: (1) either the Hoehn and Yahr scale or the modified Hoehn and Yahr scale; (2) the Movement Disorder Society-Unified Parkinson's Disease Rating Scale, or MDS-UPDRS; and (3) the Hauser motor fluctuation patient diary. Two of these scales, MDS-UPDRS and the Hauser diary, are also used to measure therapeutic benefit.

The Hoehn and Yahr scale and modified Hoehn and Yahr scale are commonly accepted reference scales to measure disease progression in Parkinson's, with stage one being the earliest and stage five being the most advanced. In clinical trials of tavapadon, the Hoehn and Yahr scale and the modified Hoehn and Yahr scale are used primarily for patient selection and enrollment.

| Hoehn and Yahr scale | Modified Hoehn and Yahr scale |
|---|--|
| 1: Unilateral involvement only usually with minimal or no functional disability | 1.0: Unilateral involvement only |
| 2: Bilateral or midline involvement without impairment of balance | 1.5: Unilateral and axial involvement |
| 3: Bilateral disease: mild to moderate disability with impaired postural reflexes; physically independent | 2.0: Bilateral involvement without impairment of balance |
| 4: Severely disabling disease; still able to walk or stand unassisted | 2.5: Mild bilateral disease with recovery on pull test |
| 5: Confinement to bed or wheelchair unless aided | 3.0: Mild to moderate bilateral disease; some postural instability; physically independent |
| | 4.0: Severe disability; still able to walk or stand unassisted |
| | 5.0: Wheelchair bound or bedridden unless aided |

The MDS-UPDRS or its predecessor are the most widely used assessment for clinical evaluation of Parkinson's, and, to our knowledge, based on a review of the FDA's approved drugs database, Part III scores (alone or in combination with Part II) have been used in some way as the primary basis for evaluation and approval of the three D2/D3-preferring agonists and one MAO-B inhibitor that are currently FDA approved as monotherapies for the treatment of early Parkinson's symptoms. The MDS-UPDRS utilizes a combination of physician and patient assessments. A negative change from baseline in total score represents an improvement in symptoms. A decrease of 3.25 points or greater on the Part III total score and a decrease of 4.9 points or greater on the Part II and III combined total score have been previously identified as clinically relevant changes on these measures. The four parts of the MDS-UPDRS are described below, along with the number of items evaluated in each part and the possible total score range:

| MDS-UPDRS Part | Description | Number of Items Evaluated | Total Score Range |
|----------------|--|---------------------------|-------------------|
| Part I | Non-motor aspects of experiences of daily living | 13 | 0 to 52 |
| Part II | Motor aspects of experiences of daily living | 13 | 0 to 52 |
| Part III | Motor examination | 18 | 0 to 132 |
| Part IV | Motor complications | 6 | 0 to 24 |

A cross-sectional study of over 3,000 patients with Parkinson's identified the following mean MDS-UPDRS Part II and Part III scores based on Hoehn and Yahr stage:

| Hoehn and Yahr Stage | Mean MDS-UPDRS Part II Score | Mean MDS-UPDRS Part III Score |
|----------------------|------------------------------|-------------------------------|
| Stage One | 6.5 | 14.4 |
| Stage Two | 11.2 | 28.8 |
| Stage Three | 17.5 | 40.5 |

The Hauser diary assesses patient-defined motor function and provides a measure of change in "off" time and "on" time. The Hauser diary asks patients to rate their daily mobility for each 30-minute period over 24 hours, and to record their status for the majority of the period in one of five categories: "on" time without dyskinesias, "on" time with non-troublesome dyskinesias, "on" time with troublesome dyskinesias, "off" time or asleep. To our knowledge, improvements in "off" and "on" time have been used as the primary evaluation of benefit for all treatments that have been approved by the FDA as adjunctive therapy to L-dopa in patients with advanced Parkinson's experiencing motor fluctuations.

Phase 1b Trials in Parkinson's Disease

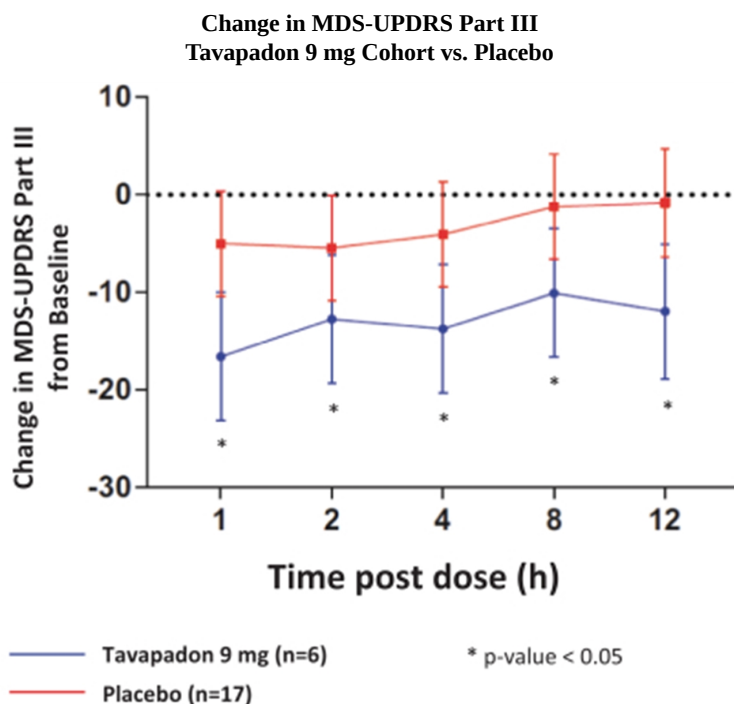
Single Ascending Dose Trial

In February 2016, Pfizer completed Trial B7601009, a double-blind, placebo-controlled Phase 1b trial in 18 Parkinson's patients who were receiving L-dopa. This trial was designed to evaluate the safety and tolerability of tavapadon in Parkinson's patients, with secondary objectives of evaluating the PK and PD of single ascending doses of tavapadon.

Enrolled patients had either stage two or three Parkinson's, as measured on the Hoehn and Yahr scale. Patients were randomized in two cohorts to receive placebo and two dose levels of tavapadon in a crossover fashion. As part of the trial, L-dopa was withdrawn for at least 12 hours before administration of tavapadon or placebo.

The primary objective of the trial was to evaluate safety and tolerability of single ascending doses ranging from 0.75 mg to 9 mg of tavapadon. The trial also evaluated a secondary endpoint of change from baseline in MDS-UPDRS Part III motor score, which was measured at baseline and at one, two, four, eight and 12 hours post-dose.

Analyses of MDS-UPDRS Part III motor scores showed that tavapadon was associated with a statistically significant decrease, or improvement, from baseline in total motor score compared to placebo. In the six patients treated with a single dose of 9 mg of tavapadon, MDS-UPDRS Part III motor scores improved significantly by between 7.27 and 11.58 points compared to placebo at all post-dose time points (p-values of 0.0005, 0.0285, 0.0037, 0.0079 and 0.0028 at one, two, four, eight and 12 hours post-dose, respectively), as illustrated below.



The mean decreases from baseline in total MDS-UPDRS Part III motor score at one, two, four, eight and 12 hours for patients in the tavapadon 3 mg and 6 mg treatment groups were numerically greater than the placebo group, but were not statistically significant. Other doses of tavapadon evaluated in this trial were considered sub-therapeutic.

There were no SAEs in the trial or any discontinuations due to AEs. The most common AEs were headache, nausea and vomiting, all of which were mild to moderate in severity. Nausea and vomiting appeared to be dose- dependent, with increased frequency observed at higher doses of tavapadon.

Multiple Ascending Dose Trial

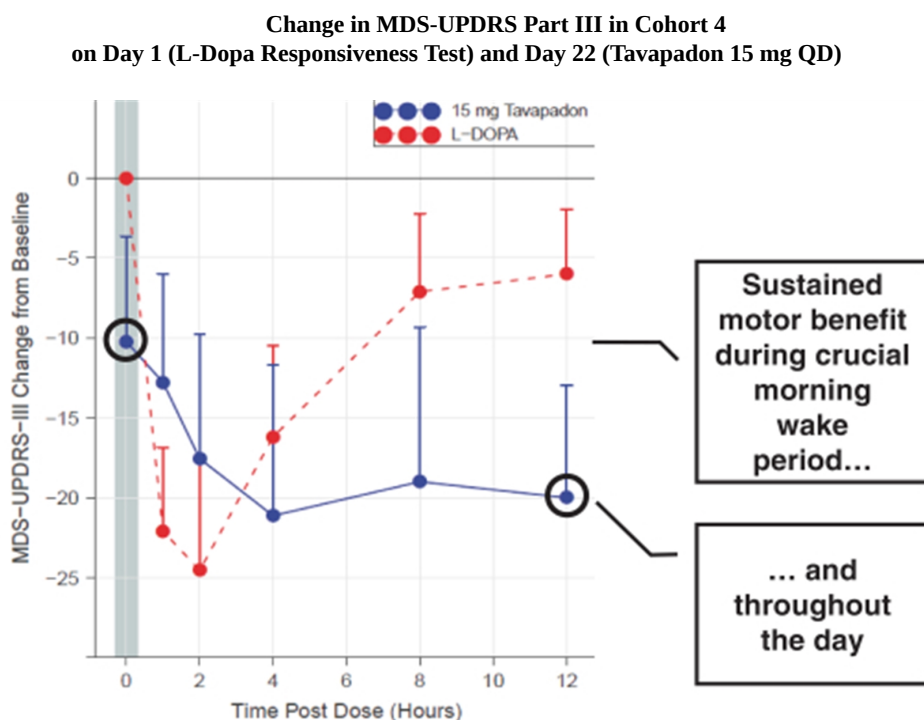
In March 2016, Pfizer completed Trial B7601005, a two-period, open-label, dose escalation Phase 1b trial designed to evaluate the safety and tolerability of tavapadon in Parkinson's patients, with a secondary objective of characterizing the PK of tavapadon when used in combination with L-dopa and exploring the effect of tavapadon on motor performance and dyskinesia.

The trial enrolled 50 patients with stage one to three Parkinson's as measured on the Hoehn and Yahr scale and a documented history of experiencing "off" time with their current L-dopa dose. Patients were randomized into four cohorts to receive three different target doses of tavapadon. One cohort received a target dose of 5 mg once-daily, or QD, one cohort received a target dose of 25 mg QD and two separate cohorts received target doses of 15 mg QD, with one of the two cohorts including only patients with Parkinson's with documented L-dopa-induced dyskinesias and using a similar but more flexible up-titration schedule.

In Period 1 of the trial, 50 patients were treated with a single individualized dose of L-dopa, representing approximately one-third of each patient's normal total daily L-dopa equivalent dose, to confirm L-dopa responsiveness. L-dopa responsiveness was evaluated after an overnight washout of the medication. A typical L-dopa regimen includes at least three doses per day, so this approach was taken to standardize the trial while also administering a test dose of L-dopa that was equivalent to or greater than a typical L-dopa dose for each patient. In Period 2 of the trial, 45 patients were administered increasing doses of tavapadon up to the target dose of their respective cohorts. Target tavapadon doses were attained using titration schemes over an 11-day period. Tavapadon was added to the regimen while L-dopa therapy was simultaneously tapered down with the intent to withdraw L-dopa entirely over two weeks. Once the target tavapadon daily dose of 5 mg, 15 mg or 25 mg for each cohort was reached, the respective target dose levels were maintained for at least 10 days. L-dopa use was permitted as a rescue treatment throughout the trial.

The objectives of the trial were to evaluate the safety and tolerability of multiple doses of tavapadon in patients with Parkinson's, to characterize the PK of L-dopa following a single dose and the PK of tavapadon following multiple doses and to explore the effect of tavapadon on motor performance and dyskinesia. Exploratory objectives included evaluating changes in MDS-UPDRS Part III motor scores before and after treatment, both acutely and after multiple doses of tavapadon without the concurrent use of L-dopa. L-dopa was withdrawn overnight before evaluation of MDS-UPDRS Part III motor scores on days 7, 13 and 22 in Period 2.

As shown below, on day 22, the last day of Period 2, administration of tavapadon in one of the 15 mg cohorts of 11 patients demonstrated a sustained MDS-UPDRS Part III motor score benefit for up to 12 hours. The magnitude of motor benefit was comparable to what had been observed following a single administration of L-dopa in Period 1, the previously discussed L-dopa responsiveness test, in this cohort. A reduction of about 10 points from baseline was observed at time zero, just before dosing, on Day 22, demonstrating the sustained effect of tavapadon 24 hours after the previous dose. We believe this observation of sustained benefit supports the potential for once- daily dosing of tavapadon. Patients in the 5 mg and 25 mg cohorts also observed sustained and what we believe to be clinically relevant motor benefit over eight hours, albeit with less magnitude than the 15 mg cohort. In the 15 mg cohort with dyskinetic patients, only three of the six patients dosed with tavapadon completed the trial, resulting in too small of a dataset to draw meaningful conclusions.



Based on the results of this trial, multiple ascending doses of tavapadon of up to 25 mg were considered to be generally well tolerated. A total of 11 patients, including four of 17 patients in the two 15 mg cohorts and seven of 19 patients in the 25 mg cohort, discontinued tavapadon due to AEs. Headache (four occurrences) and abnormal dreams (two occurrences) were the most common AEs leading to discontinuation. Headache, nausea, abnormal dreams, dizziness and vomiting were the most common AEs across all cohorts, the majority of which were mild to moderate in severity, with six severe adverse events and one SAE observed. One patient in the 25 mg cohort experienced an SAE of palpitations, which occurred at the 1 mg titration dose and was determined by the investigator as not related to treatment. The majority of AEs occurred during the titration period, with the gastrointestinal AEs appearing to be dose related. Most AEs appeared to be related to the pace and increment of up-titration rather than maximum exposure to tavapadon.

Phase 2 Trials in Early-Stage and Late-Stage Parkinson's

Early-Stage Parkinson's

In January 2018, Pfizer concluded Trial B7601011, a 15-week, double-blind, randomized, placebo- controlled, flexible dose Phase 2 trial designed to evaluate the efficacy, safety and tolerability of tavapadon in patients with early-stage Parkinson's. As discussed below, Pfizer terminated this early-stage Parkinson's trial early based on the results from the Phase 2 late-stage Parkinson's trial.

The trial enrolled 57 early-stage Parkinson's patients with stage one to three Parkinson's as measured on the Hoehn and Yahr scale. Prior to early termination of the trial by Pfizer, 88 patients had been planned to be enrolled in the trial. Patients were randomized on a 1:1 basis into two arms to receive 15 weeks of treatment with tavapadon or placebo. The 15-week treatment period included nine weeks of dose titration and optimization followed by six weeks of stable dosing at up to 15 mg of tavapadon. The primary endpoint was the change in MDS-UPDRS Part III motor score from baseline at week 15. Exploratory endpoints included the Patient Global Impression of Improvement, or the PGI-I, and the Epworth Sleepiness Scale, or the ESS.

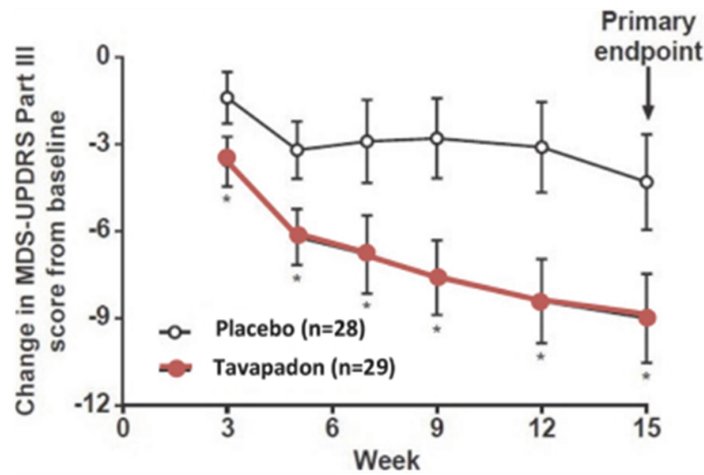
As part of the trial design, there was a pre-determined decision to terminate the trial early if the concurrent Phase 2 trial in late-stage Parkinson's (Trial B7601003) did not meet a strategic pre-set threshold for efficacy at the interim analysis. As described below, the late-stage Parkinson's trial was terminated early, which resulted in the early termination of this trial as well. At the time of the trial termination, only 11 of 26 patients that reached the six-week maintenance period were on the 15 mg target dose.

This trial enrolled treatment-naïve Parkinson's patients that had no prior exposure to Parkinson's medications as well as Parkinson's patients with prior or current use of MAO-B inhibitors, amantadine and anticholinergics. Concurrent use of these medications was permitted during the trial as long as dosing had been stable for at least 42 days prior to randomization. Patients with incidental prior exposure to L-dopa or a dopamine agonist for less than a total of 28 days were also permitted, as long as such exposure had not occurred within seven days of randomization. In total, 57 patients were randomized, with 29 patients in the active arm and 28 patients in the placebo arm. Due to the early termination of the trial, only 65% of target enrollment was reached and 25 active patients and 22 placebo patients completed the trial. Despite the reduced sample size of patients completing the trial, the trial demonstrated a statistically significant improvement in MDS-UPDRS Part III motor scores from baseline at week 15 for patients on tavapadon as compared to placebo. The trial originally planned to enroll 88 patients to power for the conventional threshold for statistical significance of $p=0.05$, based on a predicted treatment effect of at least -3.6 points on the primary endpoint of change in MDS-UPDRS Part III motor score from baseline at week 15. Since the actual observed treatment effect of -4.8 points was in excess of the expected treatment effect of -3.6 points used to power the trial, fewer than expected patients were required for sufficient power to demonstrate statistical significance. While the trial was terminated early, resulting in fewer patients being enrolled into and dosed in the trial than originally expected, such early termination of recruitment did not affect the validity of the trial or the results achieved as they relate to the patients that actually completed the dosing regimen as originally planned. Additionally, the early termination of the trial did not result in the dosed patients being treated for a shorter duration than planned or in a different manner than was contemplated by the protocol. Furthermore, the early termination of the trial did not introduce selection or allocation bias with respect to randomization. The early termination of recruitment did not alter the enforced inclusion or exclusion criteria that defined the target patient population, the 1:1 balanced and double-blind randomization or assignment of subjects to treatment arms, nor the treatment duration contemplated by the original trial design. Although the overall number of patients dosed decreased as a result of early termination, these patients studied were representative of the target population of early-stage Parkinson's patients. In the dosed trial population, the variance of the results did not exceed what was expected in the original powering assumptions for the trial, nor what was consistently observed among prior early-stage Parkinson's trials.

The results of the trial on the full dataset are summarized below.

- As illustrated below, the mean change from baseline at week 15 in the MDS-UPDRS Part III motor score was -9.0 for tavapadon across all dose levels administered in the maintenance phase and -4.3 for placebo, with a least squares mean improvement over placebo of -4.8 in favor of the tavapadon group ($p=0.0407$). These changes are well above the 3.25-point improvement that is recognized as clinically meaningful on the MDS-UPDRS Part III motor score. Mean baseline MDS-UPDRS III motor scores were 24.3 and 25.8 for the tavapadon and placebo groups, respectively.

Change in MDS-UPDRS Part III



* Indicates two-sided p-value of less than or equal to 0.1.

- At week 15, 50% of patients treated with tavapadon reported being “much improved” or “very much improved” on the PGI-I, compared with 25% in the placebo group ($p=.0393$). The PGI-I is a patient-reported outcome and an important qualitative assessment of meaningful change in overall patient condition and well-being.
- At weeks 9 and 15, across all dose levels, tavapadon demonstrated a 1.0 and 1.1 point improvement, respectively, relative to placebo on the MDS-UPDRS Part II total score, which measures motor aspects of experiences of daily living. Because sample sizes were small and the trial was not powered to show significance on this endpoint, these changes were not statistically significant. Since each item evaluated by the MDS-UPDRS II total score measures daily function, we believe that any measurable improvements over placebo would be considered clinically relevant.
- At weeks 9 and 15, there was no statistically significant difference between the tavapadon and placebo groups in somnolence as measured by the ESS. Somnolence is a known side effect of D2/D3-preferring agonists.
- Tavapadon demonstrated the potential for a favorable tolerability profile, with the majority of AEs reported as mild or moderate and one SAE of suicidal ideation observed, which was considered related to the investigational product by the investigator but not related by the sponsor, and which was resolved on the same day. The most frequently reported AEs in patients treated with tavapadon were nausea, headache, dry mouth, tremor and fatigue. Treatment compliance was high in both the tavapadon and placebo groups, with 86% of patients who received tavapadon completing the trial.

The trial results described above are based on nine weeks of dose titration and optimization and only six weeks of stable dosing. Past Parkinson’s trials for other compounds have indicated that the results observed in placebo subjects on measures such as the MDS-UPDRS scale may peak between eight and 18 weeks of treatment and then deteriorate over a longer timeframe, resulting in a greater difference between active treatment and placebo at six months. We believe a longer treatment duration of six months could result in further improved results compared to placebo.

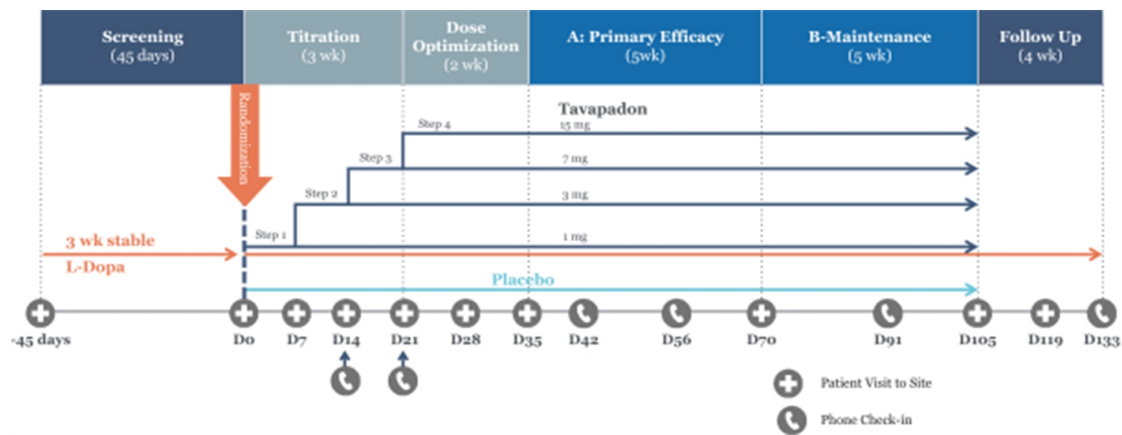
The table below summarizes treatment-emergent AEs that occurred during the trial:

| Number (%) of Subjects with AEs | Tavapadon (N=29) | Placebo (N=28) |
|---|---------------------|-------------------|
| With Any AEs | 25 (86.2) | 18 (64.3) |
| Gastrointestinal Disorders | 16 (55.2) | 7 (25.0) |
| Diarrhea | 1 (3.4) | 3 (10.7) |
| Dry mouth | 5 (17.2) | 0 |
| Dyspepsia | 1 (3.4) | 2 (7.1) |
| Nausea | 9 (31.0) | 2 (7.1) |
| General Disorders and Administration Site Conditions | 7 (24.1) | 8 (28.6) |
| Fatigue | 3 (10.3) | 3 (10.7) |
| Infections and Infestations | 6 (20.7) | 3 (10.7) |
| Nasopharyngitis | 2 (6.9) | 1 (3.6) |
| Urinary tract infection | 3 (10.3) | 0 |
| Metabolism and Nutrition Disorders | 4 (13.8) | 2 (7.1) |
| Decreased appetite | 3 (10.3) | 0 |
| Musculoskeletal and Connective Tissue Disorders | 11 (37.9) | 3 (10.7) |
| Arthralgia | 3 (10.3) | 0 |
| Back pain | 3 (10.3) | 1 (3.6) |
| Nervous System Disorders | 14 (48.3) | 6 (21.4) |
| Dizziness | 2 (6.9) | 1 (3.6) |
| Dysgeusia | 2 (6.9) | 0 |
| Dystonia | 2 (6.9) | 0 |
| Headache | 7 (24.1) | 2 (7.1) |
| Hypoaesthesia | 2 (6.9) | 0 |
| Paraesthesia | 2 (6.9) | 0 |
| Somnolence | 4 (13.8) | 1 (3.6) |
| Tremor | 4 (13.8) | 2 (7.1) |
| Psychiatric Disorders | 8 (27.6) | 4 (14.3) |
| Abnormal dreams | 2 (6.9) | 0 |
| Anxiety | 2 (6.9) | 1 (3.6) |
| Depression | 2 (6.9) | 0 |
| Insomnia | 2 (6.9) | 2 (7.1) |
| Irritability | 2 (6.9) | 0 |
| Restlessness | 2 (6.9) | 0 |
| Vascular Disorders | 4 (13.8) | 1 (3.6) |
| Hot flush | 3 (10.3) | 0 |
| Hypotension | 2 (6.9) | 0 |

Late-Stage Parkinson's

In November 2017, Pfizer concluded Trial B7601003, a randomized, double-blind, placebo-controlled dose- ranging Phase 2 trial designed to evaluate the efficacy, safety and tolerability of tavapadon as an adjunct therapy for patients on L-dopa experiencing motor fluctuations due to Parkinson's.

The trial was designed to enroll approximately 198 patients with late-stage Parkinson’s on stable doses of at least 400 mg of L-dopa four times per day and experiencing at least 2.5 hours of “off” time per day for three consecutive days based on the Hauser diaries collected during screening. After the screening period, patients who met the screening criteria were randomized to four treatment groups of tavapadon or placebo as an add-on therapy to L-dopa: 15 mg QD, 7 mg QD, 3 mg QD, 1 mg QD or placebo. The trial duration was approximately 25 weeks, including a 45-day screening period, a 15-week double-blind treatment period and an approximately 28-day follow-up period. The treatment period was comprised of up to three weeks of dose titration, two weeks of dose optimization and Period A, five weeks of maintenance, followed by Period B, either five additional weeks of maintenance with concurrent down-titration of L-dopa dosing or five additional weeks of maintenance with the current L-dopa regimen kept stable. The design of the trial is summarized below:



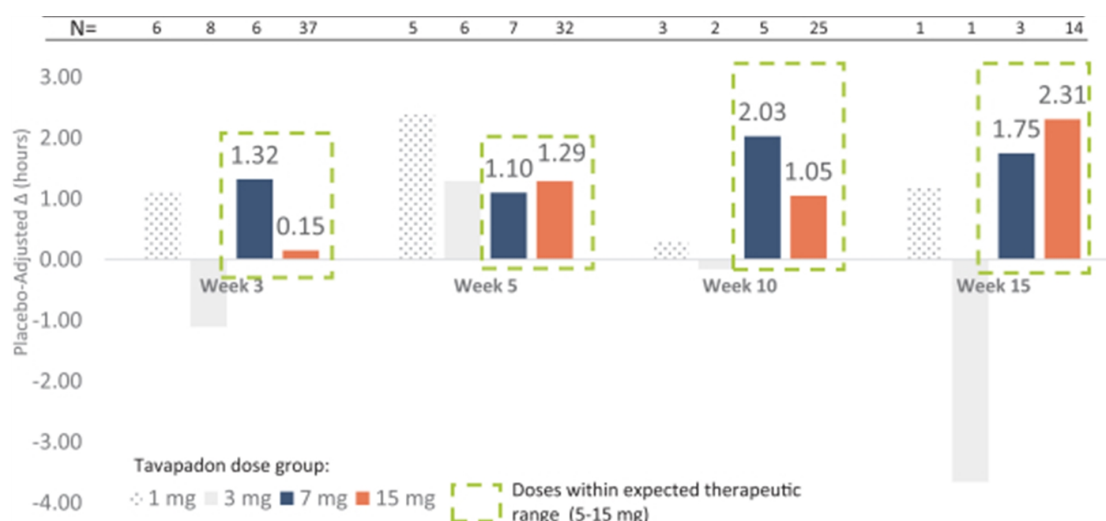
The primary endpoint was the change from baseline in daily hours of “off” time at the end of Period A (week 10), based on patient-reported Hauser diaries. Key secondary and exploratory endpoints included change in “on” time without troublesome dyskinesias, the PGI-I, the ESS and performance on MDS-UPDRS Parts I-IV motor scores.

As part of the initial trial protocol, Pfizer established a pre-defined early termination criterion based on the likelihood of achieving a pre-specified efficacy hurdle. We believe this efficacy hurdle was set disproportionately high given the treatment duration of the trial. Specifically, an interim analysis was conducted when 108 patients of the targeted 198 patients were enrolled to determine if there was a less than 10% predictive probability of demonstrating an absolute placebo-adjusted reduction in “off” time of 1.5 hours or more at week 10. The interim analysis revealed that this pre-defined efficacy hurdle was not met by any of the doses of tavapadon evaluated in this trial. At the time of the interim analysis, approximately 50 patients had completed treatment through week 10 of the trial. Based on these interim results, Pfizer made a decision to terminate both this trial as well as the concurrent Phase 2 early-stage Parkinson’s trial described above (Trial B7601011).

We believe the pre-defined efficacy criterion was a significant hurdle to meet given the limited duration of the trial, where patients spent the first three weeks of treatment titrating up to the maximum 15 mg target dose of tavapadon, if tolerated, and only seven weeks of treatment at the maintenance dose. Based on historical data from past Parkinson’s clinical development programs, we believe that a minimum of six months of treatment, inclusive of dose titration to a target maintenance dose, would be necessary to see an absolute placebo-adjusted reduction in “off” time of 1.5 hours or more.

In the final analysis of the primary endpoint, the placebo-adjusted reduction from baseline to week 10 in average daily “off” time was 0.63 hours for the tavapadon 15 mg QD group (n=41), which, although not statistically significant, we believe to be clinically relevant. For example, the approval of Nourianz (istradefylline) as adjunctive treatment with L-dopa in Parkinson’s was based on placebo-adjusted improvements in “off” time of less than one hour. Furthermore, the final analysis also showed a clinically meaningful one-hour improvement in “on” time without troublesome dyskinesias at week 10 for the tavapadon 15 mg QD group as compared to placebo. For doses of tavapadon below 15 mg, the sample sizes were too small to draw meaningful conclusions (nine patients in the 3 mg QD group, nine patients in the 7 mg QD group and seven patients in the 1 mg QD group).

Placebo-Adjusted Change in “On” Time without Troublesome Dyskinesias



Although the endpoints in this trial did not achieve statistical significance, we believe that if the trial had been completed with the full sample size, there would have been a reasonable possibility of observing a treatment effect and statistical separation from placebo on both the “off” time and “on” time without troublesome dyskinesias endpoints.

A further pre-specified analysis of secondary endpoints was also completed for the 21 patients who completed treatment through week 15 of the trial, while keeping their L-dopa dose unchanged. This analysis showed a placebo-adjusted reduction from baseline in average daily “off” time of 3.52 hours and an increase in average daily “on” time without troublesome dyskinesias of 2.31 hours. The increases in treatment effect from week 10 to week 15 were primarily driven by a worsening of motor fluctuations in the placebo arm, with tavapadon activity remaining comparable to what was observed at week 10. Although based on only 21 patients (14 patients in the tavapadon 15 mg group and seven patients in the placebo group), which represented approximately half of the patients available at week 10, the observed durability of the treatment effect through week 15 strengthens our belief that the motor control improvements observed with tavapadon are reliable and support our decision to proceed to a registration-directed Phase 3 trial.

Historically, the FDA considered the “off” time endpoint to be an appropriate assessment of therapeutic benefit in patients with late-stage Parkinson’s. However, the FDA’s view has evolved, and the agency now considers the change from baseline in average daily “on” time without troublesome dyskinesias to be the most appropriate assessment of therapeutic benefit for this patient population. Based on the above data, we plan to utilize the change from baseline in “on” time without troublesome dyskinesias as the primary endpoint in our Phase 3 trial of tavapadon as an adjunct to L-dopa in late-stage Parkinson’s patients.

The table below summarizes treatment-related AEs occurring in two or more subjects during this trial, which were generally consistent with the other clinical trials of tavapadon conducted to date:

| Number (%) of Subjects with AEs | Placebo (N=23) | Tavapadon 1 mg QD (N=13) | Tavapadon 3 mg QD (N=15) | Tavapadon 7 mg QD (N=13) | Tavapadon 15 mg QD (N=44) | Total (N=108) |
|---|-------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|------------------|
| With Any AE | 7 (30.4) | 4 (30.8) | 7 (46.7) | 6 (46.2) | 29 (65.9) | 53 (49.1) |
| Gastrointestinal Disorders | 1 (4.3) | 2 (15.4) | 2 (13.3) | 1 (7.7) | 12 (27.3) | 18 (16.7) |
| Gastroesophageal reflux disease | 0 | 0 | 0 | 0 | 2 (4.5) | 2 (1.9) |
| Nausea | 1 (4.3) | 2 (15.4) | 2 (13.3) | 0 | 8 (18.2) | 13 (12.0) |
| Vomiting | 0 | 0 | 1 (6.7) | 0 | 1 (2.3) | 2 (1.9) |
| General Disorders and Administration Site Conditions | 1 (4.3) | 2 (15.4) | 1 (6.7) | 2 (15.4) | 3 (6.8) | 9 (8.3) |
| Fatigue | 1 (4.3) | 1 (7.7) | 1 (6.7) | 2 (15.4) | 1 (2.3) | 6 (5.6) |
| Metabolism and Nutrition Disorders | 0 | 1 (7.7) | 0 | 1 (7.7) | 3 (6.8) | 5 (4.6) |
| Decreased appetite | 0 | 1 (7.7) | 0 | 1 (7.7) | 3 (6.8) | 5 (4.6) |
| Musculoskeletal and Connective Tissue Disorders | 1 (4.3) | 1 (7.7) | 0 | 1 (7.7) | 3 (6.8) | 6 (5.6) |
| Musculoskeletal stiffness | 0 | 1 (7.7) | 0 | 0 | 1 (2.3) | 2 (1.9) |
| Pain in extremity | 1 (4.3) | 0 | 0 | 0 | 1 (2.3) | 2 (1.9) |
| Nervous System Disorders | 2 (8.7) | 2 (15.4) | 4 (26.7) | 5 (38.5) | 19 (43.2) | 32 (29.6) |
| Balance disorder | 1 (4.3) | 0 | 0 | 1 (7.7) | 0 | 2 (1.9) |
| Dizziness | 0 | 0 | 1 (6.7) | 1 (7.7) | 4 (9.1) | 6 (5.6) |
| Dyskinesia | 0 | 1 (7.7) | 1 (6.7) | 2 (15.4) | 7 (15.9) | 11 (10.2) |
| Dystonia | 1 (4.3) | 0 | 0 | 0 | 1 (2.3) | 2 (1.9) |
| Headache | 0 | 1 (7.7) | 1 (6.7) | 2 (15.4) | 10 (22.7) | 14 (13.0) |
| Parkinson's disease ⁽¹⁾ | 0 | 0 | 1 (6.7) | 0 | 1 (2.3) | 2 (1.9) |
| Somnolence | 0 | 0 | 1 (6.7) | 1 (7.7) | 0 | 2 (1.9) |
| Psychiatric Disorders | 4 (17.4) | 1 (7.7) | 2 (13.3) | 2 (15.4) | 12 (27.3) | 21 (19.4) |
| Abnormal dreams | 1 (4.3) | 0 | 1 (6.7) | 0 | 3 (6.8) | 5 (4.6) |
| Anxiety | 0 | 0 | 0 | 0 | 3 (6.8) | 3 (2.8) |
| Depersonalization/derealization disorder | 0 | 1 (7.7) | 0 | 0 | 1 (2.3) | 2 (1.9) |
| Depressed mood | 1 (4.3) | 0 | 0 | 0 | 1 (2.3) | 2 (1.9) |
| Insomnia | 2 (8.7) | 1 (7.7) | 0 | 1 (7.7) | 1 (2.3) | 5 (4.6) |
| Irritability | 0 | 0 | 0 | 0 | 3 (6.8) | 3 (2.8) |
| Sleep disorder | 0 | 0 | 1 (6.7) | 1 (7.7) | 1 (2.3) | 3 (2.8) |
| Vascular Disorders | 0 | 0 | 2 (13.3) | 0 | 1 (2.3) | 3 (2.8) |
| Orthostatic hypotension | 0 | 0 | 1 (6.7) | 0 | 1 (2.3) | 2 (1.9) |
| Total Events | 10 | 11 | 13 | 19 | 84 | 137 |

(1) Indicates worsening of Parkinson's symptoms.

Safety and Tolerability Data

To date, 272 subjects have received at least one dose of tavapadon across nine clinical trials, including healthy volunteers in four Phase 1 trials and patients with Parkinson's in two Phase 1b trials and three Phase 2 trials. Across these trials, tavapadon was generally well tolerated up to a titrated dose of 25 mg QD. A dose-dependent increase in the frequency of nausea and headache was observed across all trials. Most AEs were self-limited and mild to moderate in severity, with nausea, vomiting, dyskinesia, fall, fatigue, sleep disorder and tremors being the most common AEs leading to discontinuation of tavapadon, with a total of 29 patients with Parkinson's (including seven patients at the 25 mg dose, which is not being pursued in our registration-directed Phase 3 program) and nine healthy volunteers across all trials discontinuing tavapadon due to AEs.

As expected for a dopaminergic agent, there was a marked difference in tolerability in healthy volunteers who do not have a preexisting dopamine deficit when compared to Parkinson's patients. For example, a single dose of 9 mg in our Phase 1b SAD trial was generally well tolerated in Parkinson's patients, while a single dose of 1.5 mg in our Phase 1 SAD trial was associated with a high rate of nausea and vomiting in healthy volunteers. This difference is also seen with other dopaminergic drugs such as L-dopa and D2/D3-preferring agonists. These agents are titrated when used as Parkinson's treatments to improve tolerability to gastrointestinal and other side effects. The speed of titration may also play a role in the tolerability of side effects such as nausea and vomiting. We will titrate more slowly in our ongoing registration-directed Phase 3 program, which we believe will help mitigate such side effects.

There were no observations of notable differences in laboratory results, parameters or suicidality assessments between tavapadon and placebo. An analysis of multi-dose cohorts in Phase 1 trials in healthy volunteers and Parkinson's patients, including patients who were treated at doses of up to 25 mg QD of tavapadon, did not suggest that tavapadon prolongs the QTc interval, an electrocardiogram, or ECG, measurement used to assess the risk of potential cardiac arrhythmias, corrected for heart rate by Fridericia's formula. Transient prolongation of group mean QTc interval of up to 11 milliseconds was observed in single dose trials in healthy volunteers and in Parkinson's patients. However, QTc interval prolongation was not observed in any multi-dose trials. Based on our end-of-Phase 2 meeting with the FDA where we presented single-dose ECG, multiple-dose ECG and a model-based analysis of Phase 1 data, we plan to collect time- matched PK and ECG measures in a subset of patients as a sub-study in our ongoing Phase 3 fixed-dose early-stage Parkinson's trial. A stand-alone thorough QT study was not required by the FDA and is not planned.

Clinical trials of longer treatment duration of up to 15 weeks suggest a modest tavapadon dose-related decrease from baseline in systolic and/or diastolic parameters, with some cases of asymptomatic hypotension. Postural hypotension is a common finding in the population of Parkinson's patients. The occurrence of symptomatic and acute symptomatic orthostatic hypotension with use of L-dopa and D2/D3-preferring agonists is a well-documented risk. Based on preclinical and clinical data observed to date and on tavapadon's partial agonism pharmacology, we believe the risk of hypotension is reduced with tavapadon relative to full dopamine agonists.

Preclinical Studies

In preclinical studies using the well-established MPTP non-human primate model of Parkinson's, tavapadon demonstrated a sustained and improved reduction of Parkinson's symptoms and reduced dyskinesias compared to L-dopa treatment over a six-hour time course. The MPTP non-human primate model exhibits the motor symptoms of Parkinson's as a result of dopaminergic cell death in the substantia nigra. L-dopa treatment has been demonstrated to reverse Parkinson's symptoms in this model, and similar to Parkinson's patients, chronic treatment induces dyskinesias. In the MPTP model, tavapadon treatment demonstrated achievement of similar improvement in disability score compared to L-dopa with reduced dyskinesias relative to those observed with L-dopa across a seven-month study period. In addition, a series of preclinical GLP studies in non-human primates demonstrated a profile with low abuse potential. Based on these results, the FDA did not request a human abuse potential study during our end-of-Phase 2 meeting.

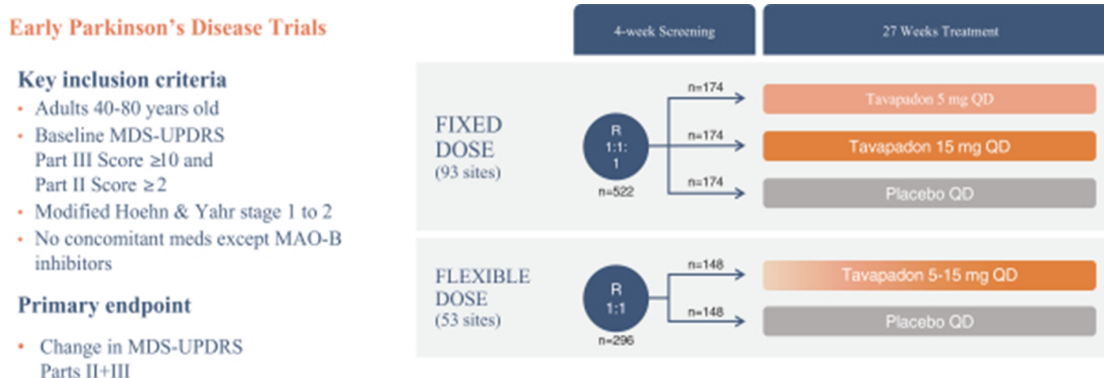
Preclinical safety and toxicology studies up to 26 and 39 weeks have been completed in rats and primates to allow for chronic dosing in humans. Preclinical safety and pharmacology studies showed effects on lowering blood pressure, which is routinely seen with dopaminergic agents, and an acute prolongation of the QT interval. Other safety studies, including preclinical reproductive, developmental and genetic toxicology studies, have not revealed any signals of note. Additional toxicology studies are ongoing and planned.

Ongoing Clinical Trials

Based on the substantial clinical data generated to date with tavapadon, we initiated our registration-directed Phase 3 program beginning in January 2020. This program includes two trials in early-stage Parkinson's, known as TEMPO-1 and TEMPO-2, one trial in late-stage Parkinson's, known as TEMPO-3, and an open-label extension trial, known as TEMPO-4. Informed by the results of the Phase 2 trials in early- and late-stage Parkinson's, our Phase 3 program has been designed to further characterize and evaluate tavapadon's risk-benefit profile in the context of existing standards of care for Parkinson's patients. Specifically, these trials will evaluate the utility of tavapadon across the disease spectrum of Parkinson's, from early-stage patients to late-stage patients experiencing dyskinesias and "off" time on L-dopa. Our Phase 3 program will include additional standard clinical pharmacology studies to support a potential future new drug application, or NDA, submission and product labeling. We had an end-of-Phase 2 meeting with the FDA in August 2019, during which we obtained feedback on our registration-directed Phase 3 program. Based on this feedback, we believe that we have an understanding of all of the essential elements required for a potential NDA submission for tavapadon.

Phase 3 Early-Stage Parkinson's Trials

As part of our registration-directed Phase 3 program, we are conducting two trials in early-stage Parkinson's patients. The diagram below summarizes the design of the two trials:



TEMPO-1: Phase 3 Fixed-Dose Early-Stage Parkinson's Trial

Based on historical registrational fixed-dose trials of approved Parkinson's treatments, we designed TEMPO-1, a Phase 3 trial as a double-blind, randomized, placebo-controlled, parallel-group, fixed-dose, 27-week trial to evaluate the efficacy, safety and tolerability of tavapadon in early-stage Parkinson's patients. We expect to enroll 522 patients with 1:1:1 randomization between tavapadon 5 mg QD, tavapadon 15 mg QD and placebo. We incorporated a preset mandatory dose titration schedule across the first six weeks of treatment in an attempt to minimize patient discontinuations. Key inclusion criteria include patients with modified Hoehn and Yahr stage one to two Parkinson's with baseline MDS-UPDRS Part III motor score of 10 or greater and Part II score of two or greater. No concomitant Parkinson's medications are allowed, except for use of MAO-B inhibitors if treatment was initiated at least 90 days before entering the trial and the dosage will remain stable for the duration of the trial.

The primary endpoint for both our fixed-dose early-stage Parkinson's trial and our flexible-dose early-stage Parkinson's trial discussed below will be the change from baseline of the combined MDS-UPDRS Parts II and III scores. There is a long history of using the MDS-UPDRS Part III score, either individually or in combination with Part II score, as the primary endpoint in registrational Parkinson's trials. To our knowledge, Part III scores have been used alone or in combination with Part II scores as the primary basis of approval for the three D2/D3- preferring agonists and one MAO-B inhibitor that are currently FDA approved as monotherapies for the treatment of early Parkinson's symptoms. During our end-of-Phase 2 meeting with the FDA, the FDA stated that they believe that the MDS-UPDRS Part II score without Part III is a more appropriate primary endpoint in clinical trials for early-stage Parkinson's patients, as all score changes in activities rated in Part II reflect a clinically relevant change in patients. The FDA explained that its interpretation of the primary endpoint results in our early-stage Phase 3 Parkinson's trials would depend on a detailed analysis of the results and of the respective contributions of Parts II and III to the final trial results. The FDA also indicated that a determination as to whether the trials contribute substantial evidence of effectiveness would be a review issue at the time of the submission of the NDA.

Accordingly, the target enrollment being utilized for our Phase 3 trials in early-stage Parkinson's is powered, based on results from the Phase 2 early-stage Parkinson's trial, to provide 90% confidence of detecting a statistically significant placebo-adjusted improvement from baseline of four points or greater in the Part II and III combined score and a statistically significant placebo-adjusted change from baseline of one point or greater in the Part II score alone. Since each item evaluated by the MDS-UPDRS Part II total score measures daily function, we believe that any measurable improvements over placebo would be considered clinically relevant. Patients without any meaningful functional deficit at baseline, represented by an MDS-UPDRS Part II score of zero or one, who are thus not able to show meaningful improvement on their Part II score with treatment, will be excluded from the trials. We also believe the extended 27-week period of treatment will increase the probability of a robust difference from placebo on both the primary endpoint of Part II and III combined scores and the individual Part II score.

Key secondary endpoints are the change from baseline in the MDS-UPDRS Part II score and a responder analysis on Patient Global Impression of Change, a patient-reported assessment of the overall benefit of treatment (referred to as the PGI-I in prior tavapadon trials). Additional exploratory endpoints include quality of life measures as well as safety measures such as the ESS and Questionnaire for Impulsive-Compulsive Disorders in Parkinson's. We have designed the trial with these endpoints to demonstrate the impact of tavapadon on motor control and activities of daily living, as well as its potentially differentiated side effect profile with respect to somnolence and impulse control. We initiated this trial in January 2020. In response to the onset of the COVID-19 global pandemic, we paused patient screening and enrollment of our Parkinson's trials in March 2020, and we remain particularly vigilant about patient safety given the elderly nature of this population. We resumed the program and re-initiated dosing in the second half of 2020 and we expect data from this trial in the second half of 2023.

TEMPO-2: Phase 3 Flexible-Dose Early-Stage Parkinson's Trial

TEMPO-2, our second Phase 3 trial is designed as a double-blind, randomized, placebo-controlled, parallel-group, flexible-dose, 27-week trial to evaluate the efficacy, safety and tolerability of tavapadon in patients with early-stage Parkinson's. We plan to enroll 296 patients with 1:1 randomization between tavapadon, which will be flexibly titrated up to between 5 mg QD and 15 mg QD, and placebo. Following a fixed titration scheme to the 5 mg QD dose level, each patient's dose will be further increased to a target dose of 15 mg QD unless prevented by tolerability. Patients unable to achieve or tolerate 15 mg QD or 10 mg QD may remain at 10 mg QD or 5 mg QD, respectively, for the remainder of the treatment phase. Key inclusion criteria include patients with modified Hoehn and Yahr stage one to two Parkinson's with baseline MDS-UPDRS Part III motor score of 10 or greater and Part II motor score of two or greater. No concomitant Parkinson's medications are allowed except for MAO-B inhibitors if use was initiated at least 90 days before entering the trial and the dosage will remain stable for the duration of the trial.

As mentioned above, the primary endpoint is the change from baseline of combined MDS-UPDRS Parts II and III scores. Similar to the fixed-dose early-stage Parkinson's Phase 3 trial, the primary endpoint will be supported by secondary and exploratory efficacy endpoints as well as safety measures. The flexible dose design of this trial allows for more efficient powering that requires only two arms instead of three arms. The trial is powered with 90% confidence to detect a statistically significant difference of four points or more from placebo on the primary endpoint and a difference of one point or more from placebo on the Part II score alone. We initiated this trial in January 2020. In response to the onset of the COVID-19 global pandemic, we paused patient screening and enrollment of our Parkinson's trials in March 2020 and we remain particularly vigilant about patient safety given the elderly nature of this population. We resumed the program and re-initiated dosing in the second half of 2020 and we expect data from this trial in the second half of 2023.

TEMPO-3: Phase 3 Flexible-Dose Late-Stage Parkinson's Trial

TEMPO-3, our third Phase 3 trial is designed as a double-blind, randomized, placebo-controlled, parallel-group, flexible-dose, 27-week trial to evaluate the efficacy, safety and tolerability of tavapadon as an adjunct therapy in patients with late-stage Parkinson's who are treated with L-dopa and experience motor fluctuations. We expect to enroll 368 patients with 1:1 randomization between tavapadon flexibly dosed up to between 5 and 15 mg QD and placebo. Following a fixed titration scheme to the 5 mg QD dose level, each patient's dose will be further increased to a target dose of 15 mg QD unless prevented by tolerability. Patients unable to achieve or tolerate 15 mg or 10 mg QD may remain at 10 mg or 5 mg QD, respectively, for the remainder of the treatment period. Key inclusion criteria include patients with modified Hoehn and Yahr stage two to three Parkinson's who maintain some level of responsiveness to L-dopa and are experiencing at least 2.5 hours of "off" time per day for two consecutive days at baseline.

The diagram below summarizes the design of this trial:

Late Parkinson's Disease Trial

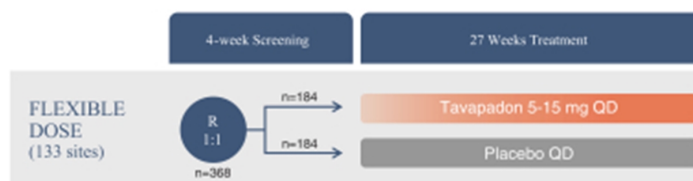
Adjunct to levodopa

Key inclusion criteria

- Adults 40-80 years old
- At least 2.5 hours OFF-time on 2 consecutive days at baseline
- Modified Hoehn & Yahr stage 2 to 3, with response to L-Dopa

Primary endpoint

- Change in ON-time without troublesome dyskinesia



The primary endpoint is the change from baseline in total “on” time without troublesome dyskinesias. Based on the learnings from the Phase 2 trial in late-stage Parkinson’s, we have designed this trial with the intention of rectifying key design components that may have contributed to the inability to achieve Pfizer’s pre-specified efficacy hurdle for continuing the tavapadon program. For example, to minimize gastrointestinal and other side effects and patient discontinuations, the protocol for this trial allows for 14 weeks of gradual titration and adjustment, rather than the three weeks allowed in the Phase 2 trial. This titration schedule is followed by 13 weeks at maximal dosing, as opposed to the seven weeks in the Phase 2 trial, to fully explore tavapadon’s potential efficacy in these patients. The FDA has publicly stated that the primary endpoint of “on” time without troublesome dyskinesias is the most clinically relevant regulatory endpoint to assess therapeutic benefit in this patient population. The trial is powered to demonstrate a one-hour improvement over placebo in the primary endpoint with 90% confidence. An interim analysis by an independent Interim Analysis Review Committee is planned for when 67% of target enrollment is achieved to assess the adequacy of the overall sample size relative to achieving trial objectives and to allow for potential sample size adjustment (up to a pre-specified maximum of 528 patients) if needed. We initiated this trial in the second half of 2020, with data expected in the first half of 2023.

TEMPO-4: Open-Label Extension Trial

Patients who complete any of the three Phase 3 trials will have the option to be rolled into TEMPO-4, a 58-week open-label safety extension trial, which will also be open to patients who did not participate in any of the Phase 3 trials. This trial is designed to provide sufficient safety data to support potential registration, including enough patients with completed six-month and 12-month treatment durations to meet the requirements for long-term safety evaluation of chronic use products at the time of an NDA submission. Based on our enrollment estimates for the Phase 3 program and the safety database required to support an NDA filing, we expect the open-label extension trial will remain ongoing at the time of NDA submission. In addition to supporting the NDA package, this open-label extension trial will allow us to collect additional long-term data on efficacy and side-effect profile to further inform how physicians might use tavapadon in the treatment paradigm.

CVL-871

In the first quarter of 2021, we submitted an IND for CVL-871 for the treatment of dementia-related apathy. CVL-871 is a selective partial agonist of the dopamine D1/D5 receptor subtypes specifically designed to achieve a modest level of partial agonism, which we believe may be useful in modulating the complex neural networks that govern cognition, motivation and behavior. Dopamine acting on D1/D5 receptor subtypes in the cortex and midbrain plays a key role in the finely-tuned and dynamic neural network that modulates cognitive function, reward-processing and decision-making. In patients with Parkinson’s, we have observed that improving motor symptoms requires higher levels of partial agonism to offset the large losses in dopaminergic neurons in the motor cortex. In contrast, dementia patients require a more finely-tuned modulation of the neural networks that govern cognition, motivation and behavior to normalize the dynamic range. As such, we have designed CVL-871 to have a lower level of partial agonism than tavapadon. The hypothesis for using D1/D5 receptor subtype partial agonism to treat dementia-related apathy is informed by clinical trials of other compounds where increases in dopamine activity resulted in a statistically significant improvement on apathy scales. We believe CVL-871 may possess an optimal profile to target this new indication due to the degree to which it activates relevant dopamine circuits within the brain and its favorable clinical tolerability profile observed to date. We plan to initiate an exploratory Phase 2a dose-ranging trial in dementia-related apathy in the second quarter of 2021 with data expected in the second half of 2022.

Apathy Background

Apathy is among the most common neuropsychiatric co-morbidities associated with dementia, afflicting almost 50% of the over 50 million dementia patients globally. Apathy represents a constellation of symptoms, such as social disengagement, diminished initiative and interest and loss of emotion, that result in impaired decision making, lack of empathy, affection or concern, loss of interest in personal wellbeing, relationships or external issues, inability to initiate and maintain normal activities, and interference with complex and basic daily functions, including motivation to eat, dress, maintain personal hygiene, and take medications. The presence of apathy has been shown to be related to decreased quality of life, increased morbidity and mortality, along with early institutionalization and greater resource utilization resulting from increased caregiver burden. In addition, apathy is associated with an increased risk developing dementia and disease progression. Therefore, the management of apathy is an important component in caring for patients with dementia.

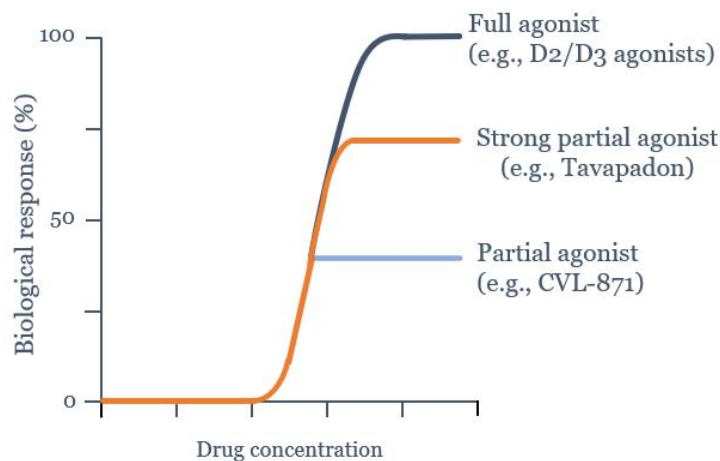
While clinicians, patients and caregivers have been challenged by this symptom, there are no currently approved therapies for dementia-related apathy. The FDA has demonstrated interest in development of a therapy for this indication and we are interacting with the agency to define the regulatory requirements and clinical development plan to achieve this novel indication. Pharmacologic treatment of patients is comprised primarily of acetylcholinesterase inhibitors, selective serotonin re-uptake inhibitors, or SSRIs, and psychostimulants such as methylphenidate. Acetylcholinesterase inhibitors, such as donepezil and rivastigmine, which are typically prescribed for Alzheimer's patients to improve cognition, have shown no proven effects on apathy in clinical trials. Though patients are sometimes prescribed SSRIs and antidepressants, use of these medications for apathy treatment in dementia is not supported by clinical evidence and the latest evidence suggests they may actually contribute to worsening symptoms.

Conscious goal-directed behavior is mediated by the mesolimbic dopamine pathway. D1 receptors in non-motor brain regions are believed to modulate cognition, reward and decision-making. The hypothesis for using D1/D5 receptor subtype agonism in this indication is informed by clinical trials of other dopamine-potentiating compounds where increases in dopamine activity resulted in a statistically significant improvement on apathy scales. For example, in a 60-patient clinical trial evaluating methylphenidate, a stimulant associated with increased dopamine levels, neuropsychiatric inventory apathy scores were improved by 1.8 points versus placebo at week six ($p=0.002$). These results imply a 63% reduction from the baseline score for methylphenidate versus a 33% reduction for placebo. The principal investigator of this trial indicated that these effects appear large enough to be of significance to clinical practice. Based on additional discussions with clinicians, we believe an improvement of this magnitude would be clinically meaningful. Methylphenidate is a Schedule II controlled substance, stimulant medication used for the treatment of ADHD that has well-established side effects, including serious impacts on cardiovascular function, appetite and sleep.

Our Solution—CVL-871

CVL-871 is a selective partial agonist of the dopamine D1/D5 receptor subtypes that we are developing for the treatment of dementia-related apathy. Key differentiating features of CVL-871 include:

1. **Mechanism of action—D1/D5 receptor subtype selectivity:** CVL-871 has been designed to selectively target dopamine D1/D5 receptor subtypes in order to treat motivational impairment without driving the somnolent, hallucinatory or impulse control effects mechanistically associated with the activation of D2/D3 receptor subtypes.
2. **Receptor pharmacology—partial agonist:** CVL-871 is an orally bioavailable, brain-penetrant small molecule with a 24-hour half-life. Both CVL-871 and tavapadon are designed as partial agonists to the D1/D5 receptors to a lesser extent than the natural ligand dopamine. CVL-871 has a reduced level of activation compared to tavapadon, which we believe facilitates optimal activation of D1/D5 in brain regions that control motivation and reward. These neural networks require more finely-tuned modulation to normalize the dynamic range, and the reduced partial agonism of CVL-871 is designed to restore, but not exceed, the optimal level of stimulation that is thought to be most associated with cognition and apathy. CVL-871's reduced partial agonism is illustrated below, as compared to tavapadon and a full agonist.



3. **Clinical and preclinical evaluation:** CVL-871 has been tested in a total of 58 subjects, including healthy volunteers in a Phase 1 single and MAD trial and Parkinson's patients in a seven-day Phase 1 trial. These trials have demonstrated evidence of CNS activity and provided clinical data that support the targeted lower partial agonism of CVL-871 relative to tavapadon. Preclinical studies showed activity in models of motor function as well as cortical function linked to increased D1 activation. Preclinical safety and toxicology studies of up to 26 weeks in duration have been completed and data to date supports the dosing duration expected in our planned Phase 2 trial.

We believe CVL-871 could possess the optimal profile amongst D1/D5 agonists to target hypothesized dopaminergic deficits in D1-mediated neural circuits related to motivation and reward processing, and clinical research suggests increased dopamine receptor activation may have a role in the treatment of dementia-related apathy.

Clinical Trials

Two Phase 1 trials of CVL-871 have been completed in a total of 75 subjects, including both healthy volunteers and Parkinson's patients. In these trials, CVL-871 was observed to be generally well tolerated. Evidence of moderate improvement in motor symptoms, a measure of biological activity, was also observed, along with a PK profile that supports the potential for once-daily dosing. Consistent with CVL-871's lower partial agonism, these studies showed a difference compared to tavapadon, including improved tolerability in healthy volunteers and a more modest magnitude of motor benefit in patients with Parkinson's. Based on these findings, we plan to initiate an exploratory Phase 2a trial of CVL-871 in dementia-related apathy in the second quarter of 2021 with data expected in the second half of 2022.

Phase 1 Single and Multiple Ascending Dose Trial

In March 2015, Pfizer completed Trial B7821001, a placebo-controlled Phase 1 trial designed to evaluate the safety, tolerability and food effect of CVL-871 in healthy volunteers after both single and multiple doses.

The SAD portion of the trial had two cohorts. In Cohort 1, eight subjects were enrolled and participated in several periods where they received placebo or CVL-871 as a single dose of up to 1 mg. In Cohort 2, eight subjects were enrolled and participated in two periods where they received a single 0.4 mg dose of CVL-871 or placebo in the fed or the fasted state. One subject from each cohort withdrew from the trial due to nausea or vomiting.

In the MAD portion of the trial, 40 subjects were enrolled. In each of four cohorts, eight subjects received a daily oral dose of CVL-871 and two subjects received placebo. For doses beyond 0.5 mg, a predetermined titration schedule of up to six days was used to improve tolerability. One subject paused dosing for two days due to a rash, which resolved without treatment, and subsequently resumed dosing and completed the trial. One additional subject withdrew from the trial due to nausea.

Results from this trial established that CVL-871 has suitable PK for once-daily oral dosing and generally low PK variability and demonstrated a modest effect of food on drug absorption. Both single doses of up to 1 mg and multiple doses of up to 3 mg QD, with a seven-day titration period, were generally well tolerated in this trial. The most frequently reported AEs in the MAD phase were nausea (nine subjects), headache (seven subjects), dizziness (six subjects), vomiting (five subjects), abnormal dreams (three subjects on CVL-871 and one subject on placebo) and dizziness postural (three subjects). All reported AEs were either mild or moderate in severity and consistent with expectations for a dopaminergic agent in healthy volunteers.

Phase 1 Multiple Dose Trial in Parkinson's

In May 2016, Pfizer completed Trial B7821002, a placebo-controlled Phase 1 trial designed to examine the safety, tolerability, PK and PD of CVL-871 in patients with Parkinson's. This proof-of-principle trial was conducted in Parkinson's patients, a population previously studied to evaluate D1/D5 receptor subtype selectivity. The results from this trial provided evidence for our translational hypotheses on the relationship between CVL-871's lower level of partial agonism and motor symptom control, which is informing the development of CVL-871 in indications such as apathy that require lower levels of activation.

A total of 19 patients entered the treatment period, with 10 patients randomized to receive CVL-871 and nine patients randomized to receive placebo. Eligible patients had a Parkinson's diagnosis and were on a stable treatment regimen that included at least 300 mg/day of L-dopa. CVL-871 was titrated for three days and then kept stable at 3 mg QD for the last four days. All patients generally remained on their stable L-dopa dose throughout the trial, except that L-dopa was withheld beginning at 8:00 PM on the day prior to final assessments. A number of safety and PK measures were collected along with MDS-UPDRS Part III and several other exploratory efficacy measures.

CVL-871 was observed to be generally well tolerated and, as expected for a dopaminergic agent, was better tolerated in this population than in the healthy volunteers in the Phase 1 SAD and MAD trial. This difference in tolerability is expected because healthy volunteers do not have a preexisting dopamine deficit as compared to Parkinson's patients. There were no AEs experienced by more than two patients in either the CVL-871 or placebo groups. The most commonly reported AEs were nausea (two patients for CVL-871 and two patients for placebo), dry mouth (two patients for CVL-871 and one patient for placebo) and vomiting (one patient for CVL-871 and two patients for placebo). There were generally no consistent differences in clinically significant laboratory, vital sign or ECG abnormalities between the CVL-871 and placebo groups.

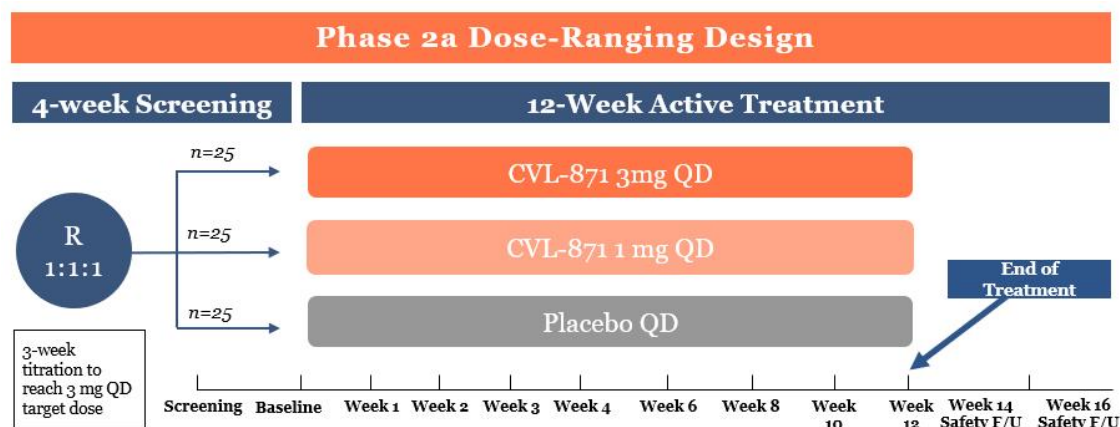
The primary efficacy endpoint was the change from baseline in MDS-UPDRS Part III motor score at Tmax on day seven. The placebo-adjusted mean change from baseline was -4.49 and did not meet the pre-specified decision criterion of significant improvement (>-4.8). We believe that, although the pre-specified decision criterion was not met, the results of this trial provide further support for the potential of a D1/D5 partial agonist as a therapy in Parkinson's disease. However, given CVL-871's reduced level of agonism, we believe its design is suited to treat indications such as apathy and motivation where mild changes in dopamine tone are sufficient to drive therapeutic benefit, as opposed to indications such as Parkinson's where there are more significant deficits in dopamine activity.

Preclinical Studies

CVL-871 has been studied in multiple preclinical studies, including a rodent memory task model that showed an improvement in cognitive performance. Preclinical safety and toxicology studies for up to 26 weeks in rats and 13 weeks in primates have been completed, which support dosing in humans for up to 13 weeks in clinical trials. Preclinical safety and pharmacology studies showed modest effects on lowering blood pressure, which is routinely observed with dopaminergic agents. Additional toxicology studies are ongoing and planned, but preclinical safety studies to date support the dose levels to be evaluated in our planned exploratory Phase 2a trial.

Planned Exploratory Phase 2a Clinical Trial

We plan to initiate an exploratory Phase 2a, multi-center, randomized, double-blind, placebo-controlled, parallel-group, 12-week, dose-ranging trial. The objective of the trial is to evaluate the safety, tolerability, and PD of two fixed doses of CVL-871 in male and female subjects aged 50 to 85 years who have clinically significant apathy and a diagnosis of mild to moderate dementia (inclusive of possible/probable Alzheimer's disease dementia, possible/probable dementia with Lewy bodies, frontotemporal dementia or vascular dementia). The trial will include a four-week screening period, a 12-week treatment period, and a four-week safety follow-up period. Approximately 75 subjects will be enrolled and randomized in a 1:1:1 ratio to three treatment groups: 1 mg QD of CVL-871, 3 mg QD of CVL-871 or placebo, as shown in the figure below.



Several clinical assessments will be utilized to measure change in apathy severity during treatment, and these assessments will be evaluated as potential primary endpoint measures for late-stage trials. These include the Neuropsychiatric Inventory (NPI) apathy domain, the Neuropsychiatric Inventory-Clinician (NPI-C) apathy domain, the Dementia Apathy Interview and Rating (DAIR), and the Apathy Evaluation Scale-Clinician (AES-C). The NPI will also be used to assess changes in other neuropsychiatric symptoms. In addition, several measures will be utilized to assess changes in cognition, function (e.g. activities of basic living, and cognitive, functional, and behavioral performance), and caregiver burden. We plan to initiate the trial in the second quarter of 2021 with data expected in the second half of 2022.

CVL-936

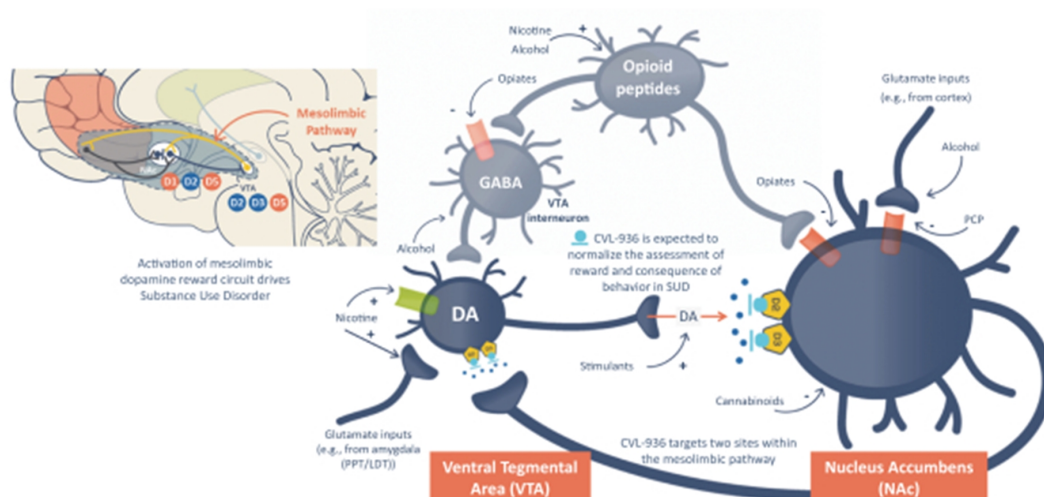
We are developing CVL-936 for the treatment of SUD, with an initial focus on OUD. In order to maximize potential for activity, CVL-936, a selective dopamine D3-preferring, D2/D3 receptor subtype antagonist, was designed to block D3 signaling within the brain while also simultaneously reducing (but not fully inhibiting) signaling at the D2 receptor subtype. CVL-936 has shown encouraging activity in translationally relevant preclinical models of both cessation and relapse using nicotine and opioid-induced cues. Based on its profile, we expect CVL-936 will allow for dosing to levels that may result in near complete and sustained blockade of D3 signaling within the brain, which may be useful in treating SUD. We expect to receive cooperative grant funding from NIDA to support the development of this compound in OUD. We initiated a Phase 1 SAD trial in healthy volunteers in January 2020. We concluded dosing of Cohort 1 of the Phase 1 SAD trial and after receiving sufficient clinical data for the intended purposes for this trial. We intend to conduct a multiple dose canine EEG study prior to resuming Phase 1 SAD and MAD evaluations.

Substance Use Disorder Background

SUD covers a spectrum of different substances of abuse, including alcohol, nicotine, opioids and illicit substances. OUD is a leading public health issue, with approximately two million OUD patients in the United States. The mortality rate is expected to be between six to 20 times greater for opioid addicts as compared to the general population. Six-month and five-year relapse rates for OUD are estimated to be approximately 50% and 90%, respectively. The Society of Actuaries estimates that between 2015 and 2018, the opioid crisis cost the United States approximately \$631 billion.

OUD is diagnosed through the DSM-V criteria, and most OUD patients seeking treatment are classified as moderate to severe. Treatment of OUD includes medically-supervised withdrawal, commonly known as detox, long-term medication-assisted treatment and psychosocial support. Currently approved treatments for long-term opioid abstinence include buprenorphine, naloxone, naltrexone and methadone, and most individuals remain on a combination of medications and psychosocial support indefinitely to manage their disorder. Despite many available therapies, compliance is often poor, patient relapse is common and there remains a clear unmet medical need for more effective treatments for OUD.

Though specific causal links to addictive behavior in humans are not fully understood, excessive signaling via D3 receptors may contribute to intense reward-seeking behavior. Commonly abused drugs have been shown to increase dopamine levels in the nucleus accumbens, where the D3 receptor is preferentially expressed, and postmortem studies have shown D3 mRNA levels were increased six-fold in the nucleus accumbens of cocaine- overdose fatalities compared to age-matched control subjects. Based on this evidence, together with other clinical data and preclinical activity of D3-preferring antagonists, including CVL-936, in relevant preclinical models, the D3 receptor appears to be central in the neurobiology of drug abuse, and we believe D3-preferring antagonists could have therapeutic value for the treatment of addiction. In response to the opioid crisis, the National Institute on Drug Addiction currently lists D3 antagonism as one of 10 priority mechanisms for rapid development. The role of D3 antagonism in reward circuits and its potential impact on SUD is further illustrated below.



Currently available atypical antipsychotics, which are D2-preferring antagonists of both D2 and D3 receptors, have shown some promise in treating addiction among schizophrenia patients with comorbid SUD. However, the substantial motor-related and metabolic side effects of these antipsychotics have limited their use to schizophrenia patients. Published clinical data of a “pure” D3 antagonist in a Phase 1b trial of nicotine addiction demonstrated marginal and short-lived effects on both a Stroop test with nicotine-associated cues and reported cigarette cravings. Despite this compound achieving a PET receptor occupancy of 89% at T_{max}, these levels were not sustained over the course of the day. These data illustrated that sustained D3 antagonism may be necessary to effectively treat SUD, and therefore clinical development of this compound was discontinued. Our hypothesis is that consistently greater than 90% D3 receptor occupancy combined with meaningful D2 receptor occupancy is necessary for significant and sustained effect. We believe that compounds showing high D3 receptor occupancy of $\geq 90\%$ and partial D2 receptor occupancy may be superior to pure D3 antagonists in SUD treatment.

Our Solution—CVL-936

CVL-936 is a dopamine D3-preferring, D2/D3 receptor subtype antagonist that we are developing for the treatment of SUD, with an initial focus on OUD. Key differentiating features of CVL-936 include:

1. **Mechanism of action—D2/D3 receptor subtype selectivity:** As described above, combining full D3 and partial D2 antagonism appears to drive the PD effect in preclinical models. CVL-936 was designed as a potent dopamine D3 antagonist and a weaker dopamine D2 antagonist. CVL-936 is >48 fold selective for both D3 and D2 versus other dopamine receptor subtypes.
2. **Receptor pharmacology—antagonist:** CVL-936 is an orally bioavailable and brain-penetrant small molecule. CVL-936 was selected for its receptor-binding profile, which is projected to allow dosing to levels that could potentially block nearly all D3-mediated signaling in the brain, with the goal of supporting SUD patients who wish to stop substance abuse by eliminating the euphoric input from D3 receptor signaling. CVL-936 is also projected to antagonize D2 receptors and reduce, but not fully block, signaling of dopamine at these receptors at clinically relevant doses. This combination of D2/D3 antagonism was evaluated in preclinical models of cessation and relapse that have demonstrated clinically-translatable outcomes for currently approved SUD treatments.
3. **Preclinical evaluation:** D2 antagonism is typically associated with side effects, including extrapyramidal symptoms and catalepsy, that can be observed in preclinical models. Among other key optimization parameters, CVL-936 was designed and selected because it has not demonstrated significant D2-antagonist-mediated side effects in preclinical studies to date. In preclinical studies, CVL-936 showed potential for preventing reinstatement of drug-seeking behavior. The preclinical and *in vitro* data collected to date support investigating human doses of CVL-936 expected to demonstrate activity.

The well-characterized association between dopamine receptor modulation and reward suggests that CVL-936 has the potential to reduce aberrant reward processing and restore a balance between valuation of risk and reward with the expectation of reducing substance abuse. As such, we believe that CVL-936 has the potential to be used chronically to maintain abstinence and prevent reinforcement of maladaptive behaviors.

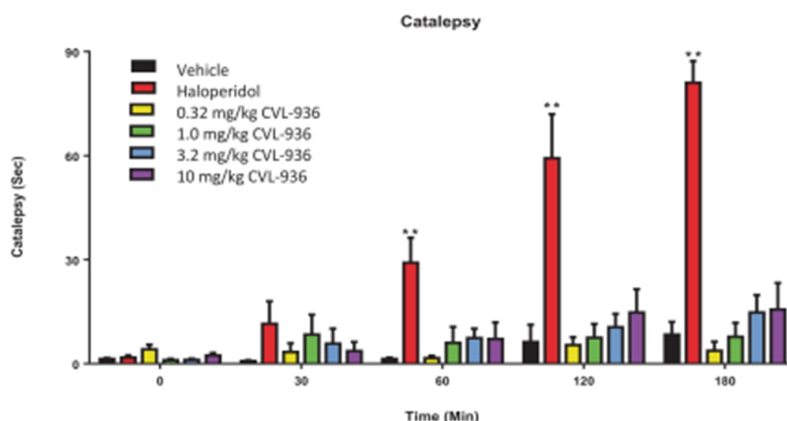
For the patient who is challenged with SUD, the overwhelming drive to re-experience the euphoria associated with a drug of abuse is a substantial hurdle that consistently drives poor judgment and the inability to resist cravings. Re-exposure to drugs of abuse reinforce maladaptive behaviors for drug-seeking that can ultimately lead to self-harm and/or death. Currently, the first-line treatment for OUD is cognitive behavioral therapy followed by mu opioid receptor partial agonists and antagonists. Therapeutic options for decoupling reward from maladaptive behavior would represent a novel functional approach to the treatment of SUDs. Additionally, we believe CVL-936 may have therapeutic potential across multiple substance use indications beyond OUD, including nicotine cessation, alcohol use disorder and binge eating.

Preclinical Studies

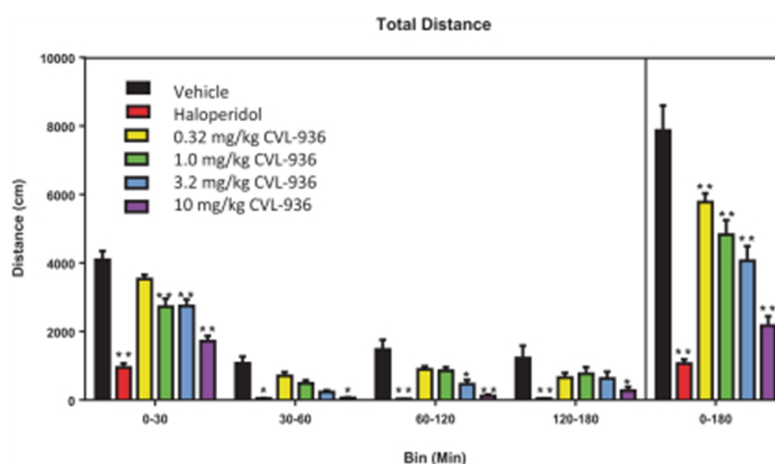
CVL-936 was evaluated in rats for the reduction of fentanyl-seeking under three reinstatement conditions: combined drug-associated cue plus drug prime, cue alone and combined drug-associated cue plus yohimbine, a pharmacological stressor. Following administration of CVL-936 30 minutes prior to the test session, CVL-936 dose-dependently attenuated cue- and prime-induced reinstatement of fentanyl-seeking behavior with a significant reduction observed at the 3.2 mg/kg dose compared to vehicle. In the fentanyl-associated cues alone paradigm, CVL-936 also attenuated cue-induced fentanyl-seeking behavior in a dose-dependent manner. Finally, when a cue was combined with a stressor, CVL-936 showed a dose-dependently attenuated reinstatement of stressor-induced fentanyl-seeking behavior with a significant decrease achieved at the 3.2 mg/kg dose compared with vehicle. CVL-936 showed similar dose-dependent attenuation of nicotine-seeking behavior in rats when primed, cued and treated with a pharmacological stressor.

D2 antagonists are commonly used as anti-psychotics, but are often associated with motor-related side effects. When tested in rats, CVL-936 demonstrated a favorable tolerability profile relative to haloperidol, a potent D2 antagonist. Specifically, as illustrated below, CVL-936 showed a reduced D2-antagonist mediated cataleptic effect compared to haloperidol at all doses tested and a reduced impact on spontaneous locomotion. As such, we believe CVL-936 is differentiated compared to existing D2 antagonists.

D2-Antagonist Mediated Catalepsy in Rats CVL-936 vs. Haloperidol vs. Vehicle



D2-Antagonist Mediated Locomotion in Rats CVL-936 vs. Haloperidol vs. Vehicle



In preclinical toxicology studies, CVL-936 showed no side effects that we believe would preclude studies in humans. Toxicology studies of up to one month have been completed in rats and canines, and the results support dosing in humans. Preclinical safety and pharmacology studies showed effects of increased heart rate and blood pressure, which were reversible and can be monitored clinically. Convulsions have also been observed in a single canine at exposures significantly higher than the doses expected to be evaluated in our planned clinical trials. Subsequent evaluation in a single dose canine study that employed EEG demonstrated no signals of pre-seizure activity. We intend to conduct an additional multiple dose canine EEG study prior to resuming Phase 1 SAD and MAD evaluations.

Phase 1 Single Ascending Dose Trial

In January 2020, we initiated our first-in-human, double-blind, SAD, Phase 1 trial to investigate the safety, tolerability, PK profile and preliminary PD of CVL-936 in healthy volunteers between 18 and 50 years old. In response to the COVID-19 global pandemic, we have concluded dosing of Cohort 1 of the Phase 1 SAD trial after receiving sufficient clinical data for the intended purposes for this trial.

The primary objectives of this trial are to evaluate the safety and tolerability of single ascending doses of CVL-936 as assessed by treatment-emergent AEs, ECG results including continuous ECG monitoring, vital signs measurements, clinical laboratory tests including plasma prolactin levels, physical and neurological examinations, suicidality assessed using the C-SSRS and extrapyramidal symptoms based on the SAS, AIMS and BARS assessments.

In Cohort 1 of this trial, three single doses of CVL-936 (0.5 mg, 1.5 mg and 5 mg) and matching placebo were administered in a crossover design. During the trial, a total of 10 subjects were randomly assigned to receive treatment, of whom six received CVL-936 and nine received placebo.

Based on metabolite to parent ratios observed in Cohort 1, we determined that the metabolite PK stopping criteria would be met at a projected CVL-936 dose of 25 mg. Therefore, the goal of obtaining data to support the primary objectives of this trial were achieved and we elected to stop the trial prior to the initiation of Cohort 2.

In Cohort 1, single doses of CVL-936 up to 5 mg were generally well tolerated in healthy subjects. No safety concerns were noted in ECG findings or vital sign measurements. There was no indication of an effect of CVL-936 on extrapyramidal symptoms. One subject had an adverse event of clinically relevant neutropenia following treatment with the 5 mg dose of CVL-936, but, based on the subject's history, we and the investigator did not consider the neutropenia to be related to treatment with CVL-936. No other clinically relevant findings in clinical laboratory assessments occurred during the trial.

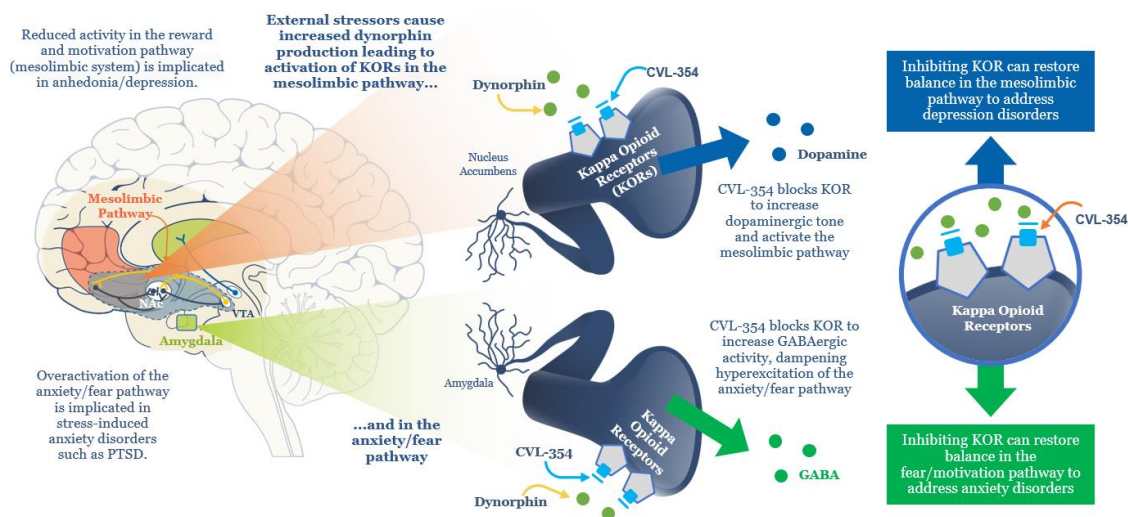
CVL-936 was characterized by rapid absorption and the increase in CVL-936 exposures was approximately dose proportional across the dose range studied. CVL-936 administration resulted in a dose-dependent increase in serum prolactin, which returned to baseline around eight hours post-dose. The increases in prolactin levels were not accompanied by any adverse effects. There was no evidence of an effect of CVL-936 on either mood or drug abuse potential.

We are evaluating the data observed in Cohort 1 and formulating our plans with respect to the development of this product candidate. We intend to conduct a multiple dose canine EEG study prior to resuming Phase 1 SAD and MAD evaluations.

Preclinical Assets

CVL-354

CVL-354 is an antagonist of the kappa opioid receptor, or KOR, that we plan to evaluate for the treatment of MDD and SUD. KORs are G-protein coupled receptors that are expressed throughout the CNS, but particularly in circuits linked to motivation and anxiety. As illustrated in the graphic below, KOR activation is associated with neural networks linked to stress, depression and anxiety. In the mesolimbic pathway, stressors lead to increased expression of the endogenous KOR activator, dynorphin, which results in reduced dopaminergic tone, an effect that is implicated in anhedonia and depression and that we believe can be reversed via KOR antagonism. In the fear and anxiety pathway, hyperactivity of the amygdala has been demonstrated in anxiety disorders. Activation of KOR in this circuit leads to loss of GABAergic tone; GABA is the main inhibitory neurotransmitter that dampens down neuronal hyperexcitation through hyperpolarization. We believe that KOR antagonism has the potential to increase GABAergic tone and therefore decrease excitation to address anxiety. In SUD specifically, our goal is to reduce the physical symptoms and anxiety associated with withdrawal and thereby help patients recovering from addiction to maintain abstinence.



CVL-354 is a high potency KOR antagonist, or KORa, and has 30-fold selectivity for KOR over the mu opioid receptor, or MOR. Notably, CVL-354 has no agonist activity at the MOR. Furthermore, CVL-354 has shown robust activity in preclinical animal models. Treatment with spiradoline, a KOR agonist, causes significantly decreased reward-seeking behavior in rodents, representing a demotivated state. Treatment with CVL-354 dose-dependently reversed this effect, re-establishing motivation. In addition, murine data generated in collaborations with the National Institute on Drug Abuse demonstrated statistically significant reductions in both the physical signs of acute opioid and nicotine withdrawal and in the anxiety precipitated from nicotine withdrawal. Our preclinical safety package to date demonstrated approximately 20-fold safety margins over predicted efficacious exposures, and we believe the data support dosing for up to 90 days in humans. We plan to submit an IND for CVL-354 in the second quarter of 2021 and to initiate a Phase 1 trial once the IND becomes effective.

PDE4B Inhibitor

PDE4 is the main enzyme for the metabolism of cyclic adenosine monophosphate, or cAMP, an important second messenger in the CNS. Non-selective PDE4 inhibitors, including rolipram, have been reported to have shown antidepressant, antipsychotic, pro-cognitive and anti-inflammatory activity. Notably, rolipram, a brain-penetrant non-selective PDE4 inhibitor, demonstrated antidepressant activity comparable to tricyclic antidepressants, including desipramine and imipramine, in small trials conducted by third parties. However, gastrointestinal side effects such as nausea and emesis have been dose-limiting in all PDE4 inhibitors tested in clinical trials to date.

In addition to depression, we believe PDE4 inhibition has the potential to be effective in treating psychosis in schizophrenia. One of our lead candidates for this program, CVL-047, has demonstrated antipsychotic activity in several preclinical assays, including the pre-pulse inhibition and conditioned avoidance response models.

There are four subtypes of the PDE4 receptor family. The gastrointestinal side effects that have hindered development for non-selective PDE4 inhibitors are widely believed to be more specifically linked to inhibition of the PDE4D subtype. Our PDE4 inhibitor series is designed to be more selective for PDE4A, PDE4B and PDE4C over PDE4D and has demonstrated promising overall preclinical properties. This has resulted in a reduced emetic response to treatment in non-human primate models, suggesting the potential for this series to deliver the benefits of PDE4 inhibition while minimizing the gastrointestinal side effects linked to PDE4D inhibition. Our initial focus will be on the advancement of a PDE4B inhibitor in MDD and schizophrenia. We plan to submit an IND for this program in the second half of 2021.

M4 Full/Partial Agonist

We also plan to expand our M4 franchise with additional product candidates with pharmacology tailored to specific indications. Based on early preclinical evidence and strong biological rationale, we are evaluating highly-selective M4 full and partial agonists for potential use in schizophrenia. We are currently in the process of identifying a lead candidate for this program.

LRRK2 Inhibitor

Mutations within the LRRK2 gene are some of the most highly validated genetic risk factors for Parkinson's, with variants being associated with both familial and sporadic disease. The most common Parkinson's risk mutation in the LRRK2 gene is the G2019S variant, which is estimated to explain 3-6% of familial and 1-2% of sporadic Parkinson's worldwide. Knockdown of the LRRK2 gene has been shown to reduce both pathological forms of alpha-synuclein and the loss of dopaminergic neurons in preclinical models, suggesting that LRRK2 inhibitors may benefit all Parkinson's patients, not just those carrying LRRK2 mutations. We have developed a highly potent and selective LRRK2 kinase inhibitor that we believe has the potential to address disease progression in Parkinson's. We are currently in the process of identifying a lead candidate for this program.

Early Pipeline Target and Lead Identification Strategy

Our approach for target identification focuses on neuroscience targets with the highest levels of biological validation, as demonstrated through human pharmacological activity, our understanding of human disease biology and causal genetic association to disease. Through prioritizing a combination of both target tractability and target validation, we believe that we can more efficiently focus our early discovery efforts and resources on high probability of success opportunities that are the most likely to achieve clinical proof-of-concept, and ultimately, drug approval. Within our labs, we will leverage human genome sequencing to identify causal relationships among single nucleotide polymorphisms in idiopathic disease populations to identify novel associations between genetic pathways and disease. To date, we have successfully identified new targets that demonstrate gene dosage effects on disease phenotypes, including a pharmaceutically tractable gene that can both accelerate and reduce alpha-synuclein accumulation. Based on these data, we believe that we have the opportunity to identify compounds for use in modifying Parkinson's through modulation of alpha-synuclein levels to potentially prevent or slow the advancement of the disease. Additionally, based upon human genetics, prior clinical trials and pharmacology studies, we have identified two novel targets that have the potential to address pruritis and pain.

Our model for lead identification follows a philosophy of looking broadly to identify the most tractable chemical matter as a starting point for creating future clinical development compounds, and ultimately, approved drugs. The largest pharmaceutical companies manage internal chemical compound libraries of two to three million structures from an estimated 10⁶⁰ total possible chemical structures. These internal chemical libraries are skewed towards classes of protein targets that have been the focus of earlier programs, creating a chemical structure bias in the libraries that are represented in each individual company's compound library. Our technology-enabled approach for lead identification of chemical matter leverages new technologies to not only screen a much larger selection of chemical structures, but also to sample it in an unbiased manner. For example, current DNA-encoded libraries, or DELs, range from 50 to 100 billion chemical structures and are built randomly without bias. Each compound within a DEL is ligated to a unique DNA sequence that serves as a "barcode" for identifying the chemical structure of compounds of interest after a successful binding structure has been identified. This DNA barcode approach also allows for pooled screening of massive compound libraries, ultimately leading to what we believe is a more efficient process to identify structural epitopes of chemical leads that are designed to advance into more intensive screening assays in a shorter timeframe than single compound screening approaches.

In addition to existing wet lab technologies, we are also coupling our DEL approaches with artificial intelligence, or AI, assisted drug design. AI-based *in silico* drug design has made dramatic progress over the past five years in areas such as deep learning and generative adversarial network methods that have created an entirely virtual approach to designing potent and selective small molecules based upon predicted crystal structure of protein targets and potential small molecule epitope interactions. These AI-based drug design systems are trained on chemical binding and drug-target interactions to rapidly generate unique chemical matter for synthesis and testing. Reiterative refinement can generate novel chemical leads. Through a combination of unique starting material identified via DEL screening and refined design via AI, unique chemical leads can be efficiently generated, providing us with an advantage in compound optimization with the greatest likelihood of creating novel intellectual property. By combining these approaches for the identification of lead chemical structures, we can focus our research investment on higher value data generation for lead optimization.

Our internal research laboratories will include capabilities aimed at discovering receptor-selective molecules with carefully designed pharmacological activity. We will leverage electrophysiological and PD characterization to develop molecules that may be able to normalize neurocircuitry in neuroscience disease and minimize potential for side effects. We will evaluate chemical leads in house using both physiological and behavioral approaches to characterize their neural activity at the level of the intact CNS in model organisms.

Based on current plans for our internal laboratory space, we expect to grow to a steady state of six active internal programs in the lead optimization space, generating two to three IND-ready lead molecules per year in order to sustain an ongoing portfolio of differentiated high-quality assets. This expected level of productivity does not include internalizing programs from acquisitions and collaborations that may also increase our preclinical productivity.

Manufacturing and Supply

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We currently source all of our preclinical and clinical supply through third-party contract manufacturing organizations, or CMOs.

For clinical supply, we use CMOs who act in accordance with the FDA's GLP and current good manufacturing practices, or cGMP, for the manufacture of drug substance and product. We expect to rely on third parties for our manufacturing processes and the production of all clinical supply drug substance and drug product. We use additional contract manufacturers to fill, label, package, store and distribute investigational drug products. It is our intent to identify and qualify additional manufacturers to provide active pharmaceutical ingredients, or APIs, and fill-and-finish services prior to submission of an NDA to the FDA for any product candidates that complete clinical development.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on intellectual property. While we believe our product candidates, approach, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including pharmaceutical and biotechnology companies, academic institutions and governmental agencies as well as public and private research institutions. Any product candidates that we successfully develop and commercialize will compete with approved treatment options, including off-label therapies, and new therapies that may become available in the future.

Our competitors may have significantly greater financial resources, established presence in the market and expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products than we do. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated among a smaller number of competitors. Our commercial opportunity could be reduced or eliminated if competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Competitors also may obtain FDA or other regulatory approval for their products more rapidly or earlier than us, which could result in our competitors establishing a strong market position before we are able to enter the market. Additionally, technologies developed by our competitors may render our potential product candidates uneconomical or obsolete, and we may not be successful in marketing our product candidates against competitors.

Schizophrenia

We are developing CVL-231 for the treatment of schizophrenia. While there remains significant unmet need in schizophrenia, we may face competition from second-generation atypical antipsychotic treatments that work primarily by inhibiting D2 receptors as their primary mechanism of action. These drugs include: Abilify and Abilify Maintena, marketed by Otsuka Holdings; Invega Trinova and Invega Sustaina, marketed by Johnson & Johnson; Aristada, marketed by Alkermes; Zyprexa, marketed by Eli Lilly; Vraylar, marketed by Allergan; and Latuda, marketed by Sumitomo Dainippon Pharma.

Additionally, we are aware of several product candidates in clinical development that are designed to modulate dopamine, serotonin and/or muscarinic receptors, including product candidates being developed by Intra-Cellular Therapies, ACADIA Pharmaceuticals, Sunovion Pharmaceuticals, Minerva Neurosciences, Neurocrine Biosciences and Karuna Therapeutics.

Epilepsy

We are developing darigabat for the treatment of epilepsy. Darigabat may face competition from a variety of currently marketed therapies such as generic anticonvulsants, AEDs, sodium channel modulators and BZDs, as well as surgical options such as deep brain stimulation in patients who have failed polypharmacy. Additionally, there are next-generation therapies in development harnessing the previously mentioned mechanisms of action, such as NBI-921352 (formerly known as XEN901) being developed by Neurocrine Biosciences. Furthermore, there are multiple compounds that have been recently approved or are in late-stage development for focal epilepsy, including cenobamate, which was developed by SK Life Sciences and was approved by the FDA in November 2019.

We may also face competition from other companies developing next-generation GABA_A receptor modulators such as Sage Therapeutics and Marinus Pharmaceuticals, among others, as well as several companies, such as VistaGen Therapeutics, developing molecules targeting the NMDA receptor as both antagonists and agonists. There are also several therapies that are either marketed or in development targeting rarer forms of epilepsy such as Lennox-Gastaut syndrome and Dravet Syndrome that could have efficacy in broader epileptic populations, including fenfluramine from Zogenix and cannabinoid-based therapies from GW Pharmaceuticals.

Parkinson's Disease

We are developing tavapadon for the treatment of early- and late-stage Parkinson's. We may face competition from currently available treatments for both stages of disease, such as L-dopa, D2/D3-preferring agonists and MAO-B inhibitors as monotherapy or in combination, as well as deep brain stimulation devices by Medtronic Inc. and St. Jude Medical Inc., among others, for the later stages of disease. Additionally, we are aware of several potential therapeutics being developed by other pharmaceutical and biotechnology companies, including Denali, Prothena, Roche, Voyager Therapeutics, Prevail Therapeutics, Sage Therapeutics, Neurocrine Biosciences, Eli Lilly, AstraZeneca, and IRLAB Therapeutics, that are in various stages of clinical development. These companies are employing a variety of therapeutic modalities, including gene therapy and gene editing, in addition to small molecule chemistry, to address Parkinson's.

Substance Use Disorder

We are developing CVL-936 for the treatment of SUD, with an initial focus on OUD. In the treatment of OUD, we may face competition from manufacturers of oral buprenorphine products, including Indivior, which markets Suboxone and Subutex brands, and Braeburn, which markets Brixadi. We may also face competition from manufacturers of naloxone, naltrexone and methadone, including Emergent BioSolutions, which markets Narcan, BioDelivery Sciences, which markets Bunavail, and Alkermes, which markets Vivitrol. Other products are marketed or in development by companies such as Eli Lilly and GlaxoSmithKline.

Pfizer License Agreement

In August 2018, we entered into the Pfizer License Agreement pursuant to which we were granted an exclusive, sublicensable, worldwide license under certain Pfizer patent rights, and a non-exclusive, sublicensable, worldwide license under certain Pfizer know-how, to develop, manufacture and commercialize certain compounds and products, which currently constitute the product candidates included in the table in the section entitled “*Our Pipeline*”, in the field of treatment, prevention, diagnosis, control and maintenance of all diseases and disorders in humans, subject to the terms and conditions of the Pfizer License Agreement. The license excludes the field of treatment, prevention, diagnosis, control and maintenance of inflammatory bowel diseases and disorders in humans by compounds or products exerting a therapeutic effect on the LRRK2 target, which is retained by Pfizer. Under the terms of the Pfizer License Agreement, Pfizer is granted a non-exclusive, sublicensable, royalty-free, worldwide license under intellectual property we develop during the term of the agreement for all purposes in the LRRK2 field

retained by Pfizer. Additionally, Pfizer has an exclusive right of first negotiation in the event that we seek to enter into any significant transaction with a third party with respect to a product either globally or in certain designated countries. Significant transactions include exclusive licenses, assignments, sales, exclusive co-promotion arrangements, and other transfers of all commercial rights to a product globally or in certain designated countries, as well as exclusive distribution agreements globally or in certain designated countries.

Under the Pfizer License Agreement, we are solely responsible for the development, manufacture, regulatory approval and commercialization of compounds and products in the field. We are required to use commercially reasonable efforts to develop and seek regulatory approval for a product that contains or incorporates one of certain scheduled compounds to exert a therapeutic effect on certain targets, in each of the following countries: United Kingdom, Germany, France, Italy, Spain, China, Japan and the United States, each a major market country. We are also required to use commercially reasonable efforts to commercialize each such product, if approved, in each major market country in which regulatory approval for such product has been obtained. The Pfizer License Agreement requires Pfizer to transfer certain know-how and data, regulatory filings and materials, inventory, and other materials, records and documents, and provide certain other transitional support and assistance which has been and is expected to be immaterial, to us to facilitate our development, manufacture and commercialization of compounds and products in the field.

As partial consideration for the licensed assets, we issued Pfizer 3,833,333.33 shares of Old Cerevel Series A-2 Preferred Stock with an estimated fair value of \$100.4 million or \$26.20 per share. We also reimbursed Pfizer for \$11.0 million of direct expenses related to the Pfizer License Agreement, bringing the total initial consideration to \$111.4 million.

Under the terms of the Pfizer License Agreement, we are also required to make regulatory approval milestone payments to Pfizer, ranging from \$7.5 million to \$40.0 million on a compound-by-compound basis, upon the first regulatory approval in the United States for the first product containing or comprised of a given compound, with the amount of the payments determined by which designated group the compound falls into and with each such group generally characterized by the compounds' stage of development. Each such regulatory approval milestone is payable only once per compound. If all of our product candidates included in the table in the section entitled "*—Our Pipeline*" are approved in the United States, the total aggregate amount of such regulatory approval milestones payable to Pfizer would be approximately \$220.0 million.

In addition, we are required to pay Pfizer commercial milestone payments up to an aggregate of \$170.0 million per product when aggregate net sales of products under the Pfizer License Agreement in a calendar year first reach various thresholds ranging from \$500.0 million to \$2.0 billion. Each commercial milestone payment is payable only once upon first achievement of the applicable commercial milestone. If all of our product candidates included in the table in the section entitled "*—Our Pipeline*" achieves all of the commercial milestones, the total aggregate amount of such commercial milestones payable to Pfizer would total approximately \$1.7 billion.

We are also required to pay Pfizer tiered royalties on the aggregate net sales during each calendar year, determined on a product-by-product basis with respect to products under the Pfizer License Agreement, at percentages ranging from the low-single digits to mid-teens, with the royalty rate determined by which designated group the applicable compound for such product falls into and with each such group generally characterized by the compounds' stage of development, and subject to certain royalty deductions for the expiration of patent, regulatory and data exclusivity, generic competition and third-party royalty payments as set forth in the Pfizer License Agreement. The royalty term expires, on a product-by-product and country-by-country basis, on the later of (1) expiration of all regulatory or data exclusivity for such product in such country, (2) the date upon which the manufacture, use, sale, offer for sale or importation of such product in such country would no longer infringe, but for the license granted in the Pfizer License Agreement, a valid claim of the licensed patents and (3) 12 years following the first commercial sale of such product in such country.

Pfizer can terminate the Pfizer License Agreement in its entirety upon our material breach, subject to specified notice and cure provisions. However, if such material breach is with respect to one or more, but not all, products, targets or countries, Pfizer's right to terminate is only with respect to such products, targets or countries. Either party may terminate the Pfizer License Agreement in its entirety upon event of a bankruptcy, insolvency or other similar proceeding of the other party or a force majeure event that prohibits the other party from performing for a period of time. Absent early termination, the term of the Pfizer License Agreement will continue on a country-by-country basis and product-by-product basis, until the expiration of the royalty term for the country and the product. Upon Pfizer's termination of the Pfizer License Agreement for our material breach or either party's termination for bankruptcy, insolvency or other similar proceeding or force majeure, we would grant Pfizer an exclusive, sublicensable, royalty-free, worldwide, perpetual license under certain intellectual property we develop during the term of the Pfizer License Agreement. In addition, we would negotiate a transition plan with Pfizer that would address, among other things, the transfer of know-how and data, regulatory approvals and filings and materials, inventory and other materials, records and documents, and the provision of certain other transitional support and assistance for the terminated products, targets or countries.

Intellectual Property

We strive to protect the proprietary technologies that we believe are important to our business, including pursuing and maintaining patent protection intended to cover our product candidates and their methods of use, as well as other inventions that are important to our business. In addition to patent protection, we also rely on trade secrets to protect aspects of our business that we do not consider appropriate for patent protection.

Our commercial success depends in part on our ability to obtain and maintain patent and other proprietary protection for commercially important technologies, inventions and know-how related to our business, defend and enforce our intellectual property rights, particularly our patent rights, preserve the confidentiality of our trade secrets and operate without infringing valid and enforceable intellectual property rights of others.

The patent positions for biotechnology companies like us are generally uncertain and can involve complex legal, scientific and factual issues. In addition, the coverage claimed in a patent application can be significantly reduced before a patent is issued, and its scope can be reinterpreted and even challenged after issuance. As a result, we cannot guarantee that any of our platform technologies and product candidates will receive protection from or remain protected by enforceable patents. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. Any patents that we hold may be challenged, circumvented or invalidated by third parties.

Patents

Shortly after our formation in July 2018, we entered into the Pfizer License Agreement, pursuant to which we acquired exclusive worldwide rights under Pfizer patents, patent applications and know-how to develop, manufacture and commercialize our current product candidates.

We have exclusive licenses under the Pfizer License Agreement to patent rights in the United States and numerous foreign jurisdictions relating to our product candidates. As of December 31, 2020, the patent rights in-licensed under the Pfizer License Agreement include:

- For our dopamine D1 agonists, our portfolio includes eight patent families directed to various dopamine D1 agonists, compositions of matter and methods of treating dopamine D1-associated disorders, including schizophrenia, schizoaffective disorder, cognitive impairment, Parkinson's disease, Alzheimer's disease and dementia. Across these eight patent families, the portfolio includes 18 granted patents in the United States and 76 patents granted in foreign jurisdictions, including Canada, Japan, China or validated in various member states of the European Patent Office. Additionally, seven patent applications have been allowed or are pending in the United States and foreign jurisdictions. A subset of the patents and patent applications in our dopamine D1 agonist portfolio relate to either or both tavapadon and CVL-871. For tavapadon, the applicable patents and pending patent applications are directed to tavapadon, compositions of matter and certain methods of treatment, including methods of treating Parkinson's disease and apathy in Alzheimer's disease, and, excluding any patent term adjustments or extensions, have a statutory expiration date in 2034. For CVL-871, the applicable patents and pending patent applications are directed to CVL-871, compositions of matter and certain methods of treatment, including methods of treating Alzheimer's disease, dementia and cognitive impairment, and, excluding any patent term adjustments or extensions, have a statutory expiration date in 2034.
- For our GABA_A receptor modulators, our portfolio includes three patent families directed to various GABA_A receptor modulators, compositions of matter and methods of treating GABA_A receptor-associated diseases or disorders, including pain, epilepsy and anxiety. Across these three families, the portfolio includes three granted patents in the United States and 50 patents granted in foreign jurisdictions, including Canada, China, Japan or validated in various member states of the European Patent Office. Additionally, two patent applications have been allowed or are pending in foreign jurisdictions. A subset of the patents and patent applications in our GABA_A receptor modulator portfolio relate to darigabat. For darigabat, the applicable patents and pending patent applications are directed to darigabat, compositions of matter and methods of treating various conditions, including pain, epilepsy and anxiety, and, excluding any patent term extensions, have a statutory expiration date in 2033.
- For our muscarinic M4 positive allosteric modulators, our portfolio includes two patent families directed to various M4 PAMs, compositions of matter and methods of treating M4 receptor subtype associated diseases or disorders, including Alzheimer's disease, schizophrenia, pain, addiction and sleep disorders. Across these two families, the portfolio includes one granted patent in the U.S. and one granted patent in a foreign jurisdiction. Additionally, two applications are pending in the U.S. and 34 applications are pending in foreign jurisdictions, including the PCT. A subset of the patent applications in our M4 positive allosteric modulator portfolio relate to CVL-231. For CVL-231, these pending patent applications are directed to CVL-231, compositions of matter and methods of treating schizophrenia, and, excluding any patent term adjustments or extensions, have a statutory expiration date in 2037.
- For our dopamine D3 ligands our portfolio includes one patent family directed to various dopamine D3 ligands, compositions of matter and methods of treating diseases associated with dopamine D3 receptors, including Parkinson's disease, schizophrenia, dementia, psychosis, depression, mania, anxiety, dyskinesias, substance addiction, renal insufficiency and impulse control disorder. This patent family relates to CVL-936. This family includes one granted patent in the U.S. and 12 granted patents in foreign jurisdictions, including Australia, Canada, Russia and validations in various member states of the European Patent Office. Additionally, one application is pending in the U.S. and 7 applications are allowed or pending in foreign jurisdictions. Excluding any patent term adjustments or extensions, any patents that have or may issue from this family have a statutory expiration date in 2037.
- For our KOR antagonists, our portfolio includes one patent family directed to various KOR antagonists, compositions of matter and methods of modulating KOR and treating neurological disorders or psychiatric disorders, such as substance abuse disorders, depressive disorders, anxiety disorders, trauma and stressor related disorders, or feeding and eating related disorders. This family includes one granted patent in the U.S. and 13 pending applications in foreign jurisdictions. Excluding any patent term adjustments or extensions, the granted patent and any applications that may issue from this family have a statutory expiration date in 2037.

- For our muscarinic M4 agonists, our portfolio includes one patent family directed to various M4 agonists, compositions of matter and methods of treating M4 muscarinic receptor-associated diseases or disorders, including Alzheimer’s disease, schizophrenia, pain, addiction, Parkinson’s disease, PD-LID and sleep disorders. This family includes a pending U.S. application, as well as five pending applications in each of Canada, China, the European Patent Office, Japan and Taiwan. Excluding any patent term adjustments or extensions, any patents that may issue from this family will have a statutory expiration date in 2039.
- For our PDE4B inhibitors, our portfolio includes five patent families directed to various PDE4B inhibitors, compositions of matter and methods of treating schizophrenia, depression, anxiety, Parkinson’s disease, Alzheimer’s disease, multiple sclerosis, chronic obstructive pulmonary disease, inflammation, stroke, asthma, cerebral vascular disease and allergic conjunctivitis and, excluding any patent term adjustments or extensions, have statutory expiration dates in 2034, 2035, 2036 and 2037. The patent families include eight granted patents in the United States and 69 patents granted in foreign jurisdictions, including Canada, China, Japan, or validated in various member states of the European Patent Office. Additionally, one patent application is pending in the U.S. and 27 patent applications have been allowed or are pending in foreign jurisdictions.
- For our LRRK2 inhibitors, our portfolio includes five patent families directed to various LRRK2 inhibitors, compositions of matter and methods of treating Parkinson’s disease, Alzheimer’s disease and other neurodegeneration disorders and, excluding any patent term adjustments or extensions, have statutory expiration dates in 2033, 2034, 2036 and 2038. The patent families include three granted patents in the United States and 21 patents granted in foreign jurisdictions, including Canada, Japan, or validated in various member states of the European Patent Office. Additionally, two patent applications are pending in the U.S. and 34 patent applications are pending in foreign jurisdictions.

See the section entitled “—Pfizer License Agreement” for additional information on our rights under the Pfizer License Agreement.

Trade Secrets

In addition to patents, we rely on trade secrets and know-how to develop and maintain our competitive position. We typically rely on trade secrets to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. We protect trade secrets and know-how by establishing confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors and partners. These agreements generally provide that all confidential information developed or made known during the course of an individual or entity’s relationship with us must be kept confidential during and after the relationship. These agreements also generally provide that all inventions resulting from work performed for us or relating to our business and conceived or completed during the period of employment or assignment, as applicable, shall be our exclusive property. In addition, we take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary information by third parties.

Trademarks

As of February 1, 2021, our registered trademark portfolio contained 39 registered trademarks in foreign jurisdictions, including, but not limited to, Argentina, Brazil, China, Colombia, Japan, the Russian Federation, Switzerland, Turkey and the United Kingdom. In addition, we have three allowed trademark applications in the U.S. Further, there are 20 pending trademark applications in foreign jurisdictions, including, but not limited to, Canada, China, the European Union, Mexico, South Korea and Venezuela.

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, including the European Union, extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

Review and Approval of Drugs in the United States

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations. The failure to comply with applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant and/or sponsor to a variety of administrative or judicial sanctions, including refusal by the FDA to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters and other types of letters, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal investigations and penalties brought by the FDA and the Department of Justice or other governmental entities. In addition, an applicant may need to recall a product.

An applicant seeking approval to market and distribute a new drug product in the United States must typically undertake the following:

- completion of nonclinical, or preclinical, laboratory tests, animal studies and formulation studies in compliance with the FDA's GLP regulations;
- submission to the FDA of an IND, which must take effect before human clinical trials may begin;
- approval by an institutional review board, or IRB, representing each clinical site before each clinical trial may be initiated at that site;
- performance of adequate and well-controlled human clinical trials in accordance with good clinical practices, or GCPs, to establish the safety and efficacy of the proposed drug product for each indication;
- preparation and submission to the FDA of an NDA and payment of user fees;
- review of the product by an FDA advisory committee, where appropriate or if applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with cGMP requirements and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- satisfactory completion of FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of the clinical data;
- FDA review and approval of the NDA; and
- compliance with any post-approval requirements, including risk evaluation and mitigation strategies, or REMS, and post-approval studies required by the FDA.

Preclinical Studies

Before an applicant begins testing a compound in humans, the drug candidate enters the preclinical testing stage. Preclinical studies include laboratory evaluation of the purity and stability of the manufactured drug substance or API and the formulated drug or drug product, as well as *in vitro* and animal studies to assess the safety and activity of the drug for initial testing in humans and to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations. Some long-term preclinical testing, such as animal tests of reproductive AEs and carcinogenicity, may continue after the IND is submitted.

The IND and IRB Processes

An IND is an exemption from the FDCA that allows an unapproved drug to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer such investigational drug to humans. Such authorization must be secured prior to interstate shipment and administration of the investigational drug. In an IND, applicants must submit a protocol for each clinical trial and any subsequent protocol amendments. In addition, the results of the preclinical tests, manufacturing information, analytical data, any available clinical data or literature and plans for clinical trials, among other things, are submitted to the FDA as part of an IND. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time, the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on clinical hold. The FDA also may impose a clinical hold or partial clinical hold after commencement of a clinical trial under an IND. A clinical hold is an order issued by the FDA to the sponsor to delay a proposed clinical investigation or to suspend an ongoing investigation. A partial clinical hold is a delay or suspension of only part of the clinical work requested under the IND. No more than 30 days after imposition of a clinical hold or partial clinical hold, the FDA will provide the sponsor a written explanation of the basis for the hold. Following issuance of a clinical hold or partial clinical hold, an investigation (or full investigation in the case of a partial clinical hold) may only resume after the FDA has notified the sponsor that the investigation may proceed. The FDA will base that determination on information provided by the sponsor correcting the deficiencies previously cited or otherwise satisfying the FDA that the investigation can proceed.

A sponsor may choose, but is not required, to conduct a foreign clinical trial under an IND. When a foreign clinical trial is conducted under an IND, all FDA IND requirements must be met unless waived. When the foreign clinical trial is not conducted under an IND, the sponsor must ensure that the study is conducted in accordance with GCP, including review and approval by an independent ethics committee, or IEC, and informed consent from subjects. The GCP requirements are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data. FDA must also be able to validate the data from the study through an on-site inspection if necessary.

In addition to the foregoing IND requirements, an IRB representing each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review of the study at least annually. The IRB must review and approve, among other things, the study protocol and informed consent information to be provided to study subjects. An IRB must operate in compliance with FDA regulations. An IRB can suspend or terminate approval of a clinical trial at its institution, or an institution it represents, if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product candidate has been associated with unexpected serious harm to patients.

Additionally, some trials are overseen by an independent group of qualified experts organized by the trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a trial may move forward at designated check points based on access that only the group maintains to available data from the study. The FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Other reasons for suspension or termination may be made by us based on evolving business objectives and/or competitive climate.

Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on its ClinicalTrials.gov website.

Human Clinical Trials in Support of an NDA

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include, among other things, the requirement that all research subjects, or their legal representative, provide their informed consent in writing before their participation in any clinical trial. Clinical trials are conducted under written study protocols detailing, among other things, the inclusion and exclusion criteria, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

- *Phase 1.* The drug is initially introduced into healthy human subjects or, in certain indications such as cancer, patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness and to determine maximal dosage.
- *Phase 2.* The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- *Phase 3.* The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product and to provide adequate information for the labeling of the product.

Post-approval studies, often referred to as Phase 4 studies, may be conducted after initial regulatory approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA. In addition, within 15 calendar days after the sponsor determines that the information qualifies for reporting, IND safety reports must be submitted to the FDA for any of the following: serious and unexpected suspected adverse reactions; findings from other studies or animal or *in vitro* testing that suggest a significant risk in humans exposed to the drug; and any clinically important increase in the case of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. The FDA will typically inspect one or more clinical sites to assure compliance with GCP and the integrity of the clinical data submitted.

Concurrent with clinical trials, companies often complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and, among other things, the applicant must develop methods for testing the identity, strength, quality, purity, and potency of the final drug. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf life.

Review of an NDA by the FDA

Assuming successful completion of required clinical testing and other requirements, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the drug product for one or more indications. Under federal law, the submission of most NDAs is additionally subject to a significant application user fee as well as annual prescription drug product program fees. These fees are typically increased annually. Certain exceptions and waivers are available for some of these fees.

The FDA conducts a preliminary review of an NDA within 60 days of its receipt, before accepting the NDA for filing, to determine whether the application is sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA has agreed to specified performance goals in the review process of NDAs. Applications for drugs containing new molecular entities are meant to be reviewed within 10 months from the date of filing, and applications for "priority review" products containing new molecular entities are meant to be reviewed within six months of filing. The review process may be extended by the FDA for three additional months to consider new information or clarification provided by the applicant to address an outstanding deficiency identified by the FDA following the original submission.

During its review of an NDA, the FDA typically will inspect the facility or facilities where the product is or will be manufactured. These pre-approval inspections may cover all facilities associated with an NDA, including drug component manufacturing (such as APIs), finished drug product manufacturing, and control testing laboratories. The FDA will not approve an NDA unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications.

In addition, as a condition of approval, the FDA may require an applicant to develop a REMS. REMS use risk minimization strategies beyond the professional labeling to ensure that the benefits of the product outweigh the potential risks. To determine whether a REMS is needed, the FDA will consider the size of the population likely to use the product, seriousness of the disease, expected benefit of the product, expected duration of treatment, seriousness of known or potential AEs, and whether the product is a new molecular entity. REMS can include medication guides, physician communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU may include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The FDA may require a REMS before approval or post-approval if it becomes aware of a serious risk associated with use of the product.

The FDA is required to refer an application for a novel drug to an advisory committee or explain why such referral was not made. Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Fast Track, Breakthrough Therapy, and Priority Review

The FDA has a number of programs intended to facilitate and expedite development and review of new drugs if they are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. Three of these programs are referred to as Fast Track designation, breakthrough therapy designation, and priority review designation.

Specifically, the FDA may designate a product for Fast Track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For Fast Track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a Fast Track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a Fast Track product may be effective. The sponsor must also provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA's time period goal for reviewing a Fast Track application does not begin until the last section of the application is submitted. In addition, the Fast Track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

Second, a product may be designated as a Breakthrough Therapy if it is intended, either alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The FDA may take certain actions with respect to Breakthrough Therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff in the review process; assigning a cross-disciplinary project lead for the review team; and taking other steps to design the clinical trials in an efficient manner.

Third, the FDA may designate an NDA review for a priority review if it is for a product that treats a serious or life-threatening disease or condition and, if approved, would provide a significant improvement in safety or effectiveness. The FDA determines, on a case-by-case basis, whether the proposed product represents a significant improvement when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting product reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes, and evidence of safety and effectiveness in a new subpopulation. A priority designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from 10 months to six months.

Accelerated Approval Pathway

The FDA may grant accelerated approval to a product for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, or IMM, and that is reasonably likely to predict an effect on IMM or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. Products granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. An intermediate clinical endpoint is a measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a product, such as an effect on IMM. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints, but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a product.

The accelerated approval pathway is most often used in settings in which the course of a disease is long and an extended period of time is required to measure the intended clinical benefit of a product, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly.

The accelerated approval pathway is contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the product's clinical benefit. As a result, a product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, could result in the FDA's withdrawal of the approval and require the withdrawal of the product from the market on an expedited basis. All promotional materials for product candidates approved under accelerated regulations are subject to prior review by the FDA.

The FDA's Decision on an NDA

On the basis of the FDA's evaluation of the NDA and accompanying information, including the results of the inspection of the manufacturing facilities and select clinical trial sites, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If a complete response letter is issued, the applicant may resubmit the NDA to address all of the deficiencies identified in the letter, withdraw the application, or request a hearing. If the applicant resubmits the NDA, only when the deficiencies have been addressed to the FDA's satisfaction, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

If the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess the drug's safety or effectiveness after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs.

Post-Approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, many changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are annual prescription drug product program fee requirements for certain marketed products.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the NDA holder and any third-party manufacturers that the NDA holder may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or voluntary product recalls;
- fines, warning or untitled letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. However, companies may share truthful and not misleading information that is otherwise consistent with a product's FDA approved labeling. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and sets minimum standards for the registration and regulation of drug distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

Hatch-Waxman Amendments

Section 505 of the FDCA describes three types of marketing applications that may be submitted to the FDA to request marketing authorization for a new drug. A Section 505(b)(1) NDA is an application that contains full reports of investigations of safety and efficacy. A 505(b)(2) NDA is an application that contains full reports of investigations of safety and efficacy but where at least some of the information required for approval comes from investigations that were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted. This regulatory pathway enables the applicant to rely, in part, on the FDA's prior findings of safety and efficacy for an existing product, or published literature, in support of its application. Section 505(j) establishes an abbreviated approval process for a generic version of approved drug products through the submission of an Abbreviated New Drug Application, or ANDA. An ANDA provides for marketing of a generic drug product that has the same active ingredients, dosage form, strength, route of administration, labeling, performance characteristics and intended use, among other things, to a previously approved product, known as a reference listed drug, or RLD. ANDAs are termed "abbreviated" because they are generally not required to include preclinical (animal) and clinical (human) data to establish safety and efficacy. Instead, generic applicants must scientifically demonstrate that their product is bioequivalent to, or performs in the same manner as, the innovator drug through *in vitro*, *in vivo*, or other testing. The generic version must deliver the same amount of active ingredients into a subject's bloodstream in the same amount of time as the innovator drug and can often be substituted by pharmacists under prescriptions written for the reference listed drug.

Non-Patent Exclusivity

Under the Hatch-Waxman Amendments, the FDA may not approve (or in some cases accept) an ANDA or 505(b)(2) application until any applicable period of non-patent exclusivity for the RLD has expired. The FDCA provides a period of five years of non-patent data exclusivity for a new drug containing a new chemical entity, or NCE. For the purposes of this provision, an NCE is a drug that contains no active moiety that has previously been approved by the FDA in any other NDA. An active moiety is the molecule or ion responsible for the physiological or pharmacological action of the drug substance. In cases where such NCE exclusivity has been granted, an ANDA may not be filed with the FDA until the expiration of five years unless the submission is accompanied by a Paragraph IV certification, which states the proposed generic drug will not infringe one or more of the already approved product's listed patents or that such patents are invalid or unenforceable, in which case the applicant may submit its application four years following the original product approval.

The FDCA also provides for a period of three years of exclusivity for non-NCE drugs if the NDA or a supplement to the NDA includes reports of one or more new clinical investigations, other than bioavailability or bioequivalence studies, that were conducted by or for the applicant and are essential to the approval of the application or supplement. This three-year exclusivity period often protects changes to a previously approved drug product, such as a new dosage form, route of administration, combination or indication, but it generally would not protect the original, unmodified product from generic competition. Unlike five-year NCE exclusivity, an award of three-year exclusivity does not block the FDA from accepting ANDAs seeking approval for generic versions of the drug as of the date of approval of the original drug product; it only prevents FDA from approving such ANDAs.

Hatch-Waxman Patent Certification and the 30-Month Stay

In seeking approval of an NDA or a supplement thereto, NDA sponsors are required to list with the FDA each patent with claims that cover the applicant's product or an approved method of using the product. Upon approval, each of the patents listed by the NDA sponsor is published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Upon submission of an ANDA or 505(b)(2) NDA, an applicant is required to certify to the FDA concerning any patents listed for the RLD in the Orange Book that:

- no patent information on the drug product that is the subject of the application has been submitted to the FDA;
- such patent has expired;
- the date on which such patent expires; or

- such patent is invalid, unenforceable or will not be infringed upon by the manufacture, use, or sale of the drug product for which the application is submitted.

Generally, the ANDA or 505(b)(2) NDA cannot be approved until all listed patents have expired, except where the ANDA or 505(b)(2) NDA applicant challenges a listed patent through the last type of certification, also known as a paragraph IV certification. If the applicant does not challenge the listed patents or indicates that it is not seeking approval of a patented method of use, the ANDA or 505(b)(2) NDA application will not be approved until all of the listed patents claiming the referenced product have expired. If the ANDA or 505(b)(2) NDA applicant has provided a paragraph IV certification the applicant must send notice of the paragraph IV certification to the NDA and patent holders once the application has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the paragraph IV certification. If the paragraph IV certification is challenged by an NDA holder or the patent owner(s) asserts a patent challenge to the paragraph IV certification, the FDA may not approve that application until the earlier of 30 months from the receipt of the notice of the paragraph IV certification, the expiration of the patent, when the infringement case concerning each such patent was favorably decided in the applicant's favor or settled, or such shorter or longer period as may be ordered by a court. This prohibition is generally referred to as the 30-month stay. In instances where an ANDA or 505(b)(2) NDA applicant files a paragraph IV certification, the NDA holder or patent owner(s) regularly take action to trigger the 30-month stay, recognizing that the related patent litigation may take many months or years to resolve. Thus, approval of an ANDA or 505(b)(2) NDA could be delayed for a significant period of time depending on the patent certification the applicant makes and the reference drug sponsor's decision to initiate patent litigation. If the drug has NCE exclusivity and the ANDA is submitted four years after approval, the 30-month stay is extended so that it expires seven and a half years after approval of the innovator drug, unless the patent expires or there is a decision in the infringement case that is favorable to the ANDA applicant before then.

Patent Term Restoration and Extension

A patent claiming a new drug product may be eligible for a limited patent term extension under the Hatch- Waxman Amendments, which permits a patent term restoration of up to five years for patent term lost during product development and the FDA regulatory review. The restoration period granted is typically one-half the time between the effective date of an IND and the submission date of an NDA, plus the time between the submission date of an NDA and the ultimate approval date, provided the sponsor acted with diligence. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date. Only one patent applicable to an approved drug product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent in question and within 60 days of drug approval. A patent that covers multiple drugs for which approval is sought can only be extended in connection with one of the approvals. The U.S. Patent and Trademark Office reviews and approves the application for any patent term extension or restoration in consultation with the FDA.

Review and Approval of Medicinal Products in the European Union

In order to market any product outside of the United States, a company must also comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of products. Whether or not it obtains FDA approval for a product, an applicant will need to obtain the necessary approvals by the comparable foreign regulatory authorities before it can commence clinical trials or marketing of the product in those countries or jurisdictions. Specifically, the process governing approval of medicinal products in the European Union generally follows the same lines as in the United States. It entails satisfactory completion of preclinical studies and adequate and well-controlled clinical trials to establish the safety and efficacy of the product for each proposed indication. It also requires the submission to the relevant competent authorities of a marketing authorization application, or MAA, and granting of a marketing authorization by these authorities before the product can be marketed and sold in the European Union.

Clinical Trial Approval

The Clinical Trials Directive 2001/20/EC, the Directive 2005/28/EC on GCP and the related national implementing provisions of the individual EU Member States govern the system for the approval of clinical trials in the European Union. Under this system, an applicant must obtain prior approval from the national competent authority (NCA) of the EU Member States in which the clinical trial is to be conducted. Furthermore, the applicant may only start a clinical trial at a specific study site after the relevant independent ethics committee (EC) has issued a favorable opinion. The clinical trial application must be accompanied by, among other documents, an investigational medicinal product dossier (the Common Technical Document) with supporting information prescribed by Directive 2001/20/EC, Directive 2005/28/EC and corresponding national implementing laws of the EU Member States and further detailed in applicable guidance documents. Under the current regime all suspected unexpected serious adverse reactions to the investigated drug that occur during the clinical trial have to be reported to the NCA and ECs of the member state where they occurred.

In April 2014, the new Clinical Trials Regulation, (EU) No 536/2014 (Clinical Trials Regulation) was adopted in the EU. The Clinical Trials Regulation will be directly applicable in all the EU Member States, repealing the current Clinical Trials Directive 2001/20/EC. Conduct of all clinical trials performed in the European Union will continue to be bound by currently applicable provisions until the new Clinical Trials Regulation becomes applicable. It is expected that the new Clinical Trials Regulation (EU) No. 536/2014 will come into effect following confirmation of full functionality of the Clinical Trials Information System, the centralized EU portal and database for clinical trials foreseen by the new Clinical Trials Regulation, through an independent audit, which is currently expected to occur in December 2021.

The new Clinical Trials Regulation aims to simplify and streamline the approval of clinical trials in the European Union. The main characteristics of the regulation include: a streamlined application procedure via a single entry point, the “EU portal”; a single set of documents to be prepared and submitted for the application as well as simplified reporting procedures for clinical trial sponsors; and a harmonized procedure for the assessment of applications for clinical trials, which is divided in two parts. Part I is assessed by an elected Reference Member State, with support of the competent authorities of all EU Member States in which an application for authorization of a clinical trial has been submitted (Member States Concerned). Part II is assessed separately by each Member State Concerned. Strict deadlines have been established for the assessment of clinical trial applications. The role of the relevant ethics committees in the assessment procedure will continue to be governed by the national law of the concerned EU Member State. However, overall related timelines will be defined by the Clinical Trials Regulation.

Marketing Authorization

To obtain a marketing authorization for a product in the European Economic Area (comprising the EU Member States plus Norway, Iceland and Liechtenstein), or EEA, an applicant must submit a MAA either under a centralized procedure administered by the European Medicines Agency, or EMA, or one of the procedures administered by competent authorities in the EEA Member States (decentralized procedure or mutual recognition procedure). A marketing authorization may be granted only to an applicant established in the EEA.

The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid throughout the EEA. Pursuant to Regulation (EC) No 726/2004, the centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy medicinal products (gene therapy, somatic cell therapy and tissue-engineered products) and products with a new active substance indicated for the treatment of certain diseases, including products for the treatment of HIV or AIDS, cancer, diabetes, neurodegenerative diseases, auto-immune and other immune dysfunctions and viral diseases. For products with a new active substance indicated for the treatment of other diseases and products that are a significant therapeutic, scientific or technical innovation and whose authorization would be in the interest of public health at EU level, the centralized procedure is optional.

Under the centralized procedure, the Committee for Medicinal Products for Human Use, or the CHMP, established at the EMA is responsible for conducting the initial assessment of a product. The CHMP is also responsible for several post-authorization and maintenance activities, such as the assessment of modifications or extensions to an existing marketing authorization. Under the centralized procedure, the maximum timeframe for the evaluation of a MAA is 210 days, excluding clock stops, when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Clock stops may extend the timeframe of evaluation of a MAA considerably beyond 210 days. Accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and in particular from the viewpoint of therapeutic innovation. If the CHMP accepts such request, the time limit of 210 days will be reduced to 150 days but it is possible that the CHMP can revert to the standard time limit for the centralized procedure if it considers that it is no longer appropriate to conduct an accelerated assessment. At the end of this period, the CHMP provides a scientific opinion on whether or not a marketing authorization should be granted in relation to a medicinal product. Within 67 days from the date of the CHMP Opinion, the European Commission will adopt its final decision on the marketing authorization application.

Now that the United Kingdom (which comprises Great Britain and Northern Ireland) has left the EU, Great Britain will no longer be covered by centralized marketing authorizations (under the Northern Irish Protocol, centralized marketing authorizations will continue to be recognized in Northern Ireland). All medicinal products with a current centralized marketing authorization were automatically converted to Great Britain marketing authorizations on January 1, 2021. For a period of two years from January 1, 2021, the Medicines and Healthcare products Regulatory Agency, or MHRA, the United Kingdom medicines regulator, may rely on a decision taken by the European Commission on the approval of a new marketing authorization in the centralized procedure, in order to more quickly grant a new Great Britain marketing authorization. A separate application will, however, still be required. For additional information related to the United Kingdom's decision to leave the EU, please refer to the discussion below under the section entitled “— *Brexit and the Regulatory Framework in the United Kingdom.*”

The decentralized marketing authorization procedure allows an applicant to apply for simultaneous authorization in more than one EEA country of medicinal products that have not yet been authorized in any EEA country and that do not fall within the mandatory scope of the centralized. This application is identical to the application that would be submitted to the EMA for authorization through the centralized procedure. The Reference Member State prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. The resulting assessment report is submitted to the Concerned Member States who, within 90 days of receipt, must decide whether to approve the assessment report and related materials. If a Concerned Member State cannot approve the assessment report and related materials due to concerns relating to a potential serious risk to public health, disputed elements may be referred to the European Commission, whose decision is binding on all Member States.

The mutual recognition procedure similarly is based on the acceptance by the competent authorities of the EEA Member States of the marketing authorization of a medicinal product by the competent authorities of another EEA Member States. The holder of a national marketing authorization may submit an application to the competent authority of an EEA Member State requesting that this authority recognize the marketing authorization delivered by the competent authority of another EEA Member State.

Pediatric Development

Regulation (EC) No 1901/2006 provides that prior to obtaining a marketing authorization in the EEA, applicants have to demonstrate compliance with all measures included in an EMA-approved Pediatric Investigation Plan, or PIP, covering all subsets of the pediatric population, unless the EMA has granted (1) a product-specific waiver, (2) a class waiver or (3) a deferral for one or more of the measures included in the PIP. The PIP sets out the timing and measures proposed to generate data to support a pediatric indication of the drug for which marketing authorization is being sought. Products that are granted a marketing authorization with the results of the pediatric clinical trials conducted in accordance with the PIP are eligible for a six-month extension of the protection under a supplementary protection certificate (if any is in effect at the time of approval) even where the trial results are negative. In the case of orphan medicinal products, a two-year extension of the orphan market exclusivity may be available. This pediatric reward is subject to specific conditions and is not automatically available when data in compliance with the PIP are developed and submitted.

Regulatory Data Protection in the European Union

In the EEA, innovative medicinal products approved on the basis of a complete independent data package qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity pursuant to Directive 2001/83/EC. Regulation (EC) No 726/2004 repeats this entitlement for medicinal products authorized in accordance the centralized authorization procedure. Data exclusivity prevents applicants for authorization of generics or biosimilars of these innovative products from referencing the innovator's data contained in the dossier of the reference product when applying for a generic or biosimilar (abbreviated) marketing authorization, for a period of eight years from the date of which the reference product was first authorized in the EEA. During an additional two-year period of market exclusivity, a generic or biosimilar marketing authorization application can be submitted and authorized, and the innovator's data may be referenced, but no generic or biosimilar medicinal product can be placed on the EEA market until the expiration of the market exclusivity. The overall 10-year period will be extended to a maximum of 11 years if, during the first eight years of those 10 years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be an innovative medicinal product so that the innovator gains the prescribed period of data exclusivity, another company nevertheless could also market another version of the product if such company obtained marketing authorization based on a MAA with a completely independent data package of pharmaceutical tests, preclinical tests and clinical trials.

Periods of Authorization and Renewals

A marketing authorization has an initial validity of five years. The marketing authorization may be renewed after five years on the basis of a re-evaluation of the risk-benefit balance by the EMA or by the competent authority of the relevant EEA Member State. To this end, the marketing authorization holder must provide the EMA or the competent authority with a consolidated version of the file in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least nine months before the marketing authorization ceases to be valid. Once renewed, the marketing authorization is valid for an unlimited period, unless the European Commission or the competent authorities of the relevant Member States decide, on justified grounds relating to pharmacovigilance, to proceed with one further five year renewal period. Any authorization which is not followed by the actual placing of the medicinal product on the EEA market (in the case of the centralized procedure) or on the market of the authorizing EEA Member State within three years after authorization ceases to be valid (the so-called sunset clause).

Regulatory Requirements after a Marketing Authorization has been Obtained

Where an authorization for a medicinal product in the EEA is obtained, the holder of the marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of medicinal products. These include:

- Compliance with the European Union's stringent pharmacovigilance or safety reporting rules must be ensured. These rules can impose post-authorization studies and additional monitoring obligations.
- The manufacturing of authorized medicinal products, for which a separate manufacturer's license is mandatory, must also be conducted in strict compliance with the applicable European Union laws, regulations and guidance, including Directive 2001/83/EC, Directive 2003/94/EC, Regulation (EC) No 726/2004 and the European Commission Guidelines for Good Manufacturing Practice. These requirements include compliance with European Union cGMP standards when manufacturing medicinal products and APIs, including the manufacture of APIs outside of the European Union with the intention to import the APIs into the European Union.
- The marketing and promotion of authorized drugs, including industry-sponsored continuing medical education and advertising directed toward the prescribers of drugs and/or the general public, are strictly regulated in the European Union notably under Directive 2001/83/EC, as amended, and EU Member State laws.

Brexit and the Regulatory Framework in the United Kingdom

On June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union, commonly referred to as “Brexit.” Thereafter, on March 29, 2017, the country formally notified the European Union of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. Pursuant to Article 50 of the Lisbon Treaty, the United Kingdom ceased being a Member State of the EU on January 31, 2020, however there was an initial transition period during which EU medicinal product laws continued to apply in the United Kingdom. This transition period ended on December 31, 2020. Since the regulatory framework in the United Kingdom covering quality, safety and efficacy of pharmaceutical products, clinical trials, marketing authorization, commercial sales and distribution of pharmaceutical products is derived from European Union Directives and Regulations, Brexit could materially impact the future regulatory regime which applies to products and the approval of product candidates in the United Kingdom, now that United Kingdom legislation has the potential to diverge from EU legislation. It remains to be seen how Brexit will impact regulatory requirements for product candidates and products in the United Kingdom in the long term. The MHRA has recently published detailed guidance for industry and organizations to follow from January 1, 2021 now the transition period is over, which will be updated as the United Kingdom’s regulatory position on medicinal products evolves over time.

European Data Collection Regulation

In the event we decide to conduct clinical trials in the European Union, we may be subject to additional privacy restrictions. The collection and use of personal health information in the European Union is governed by the provisions of the Data Protection Directive, and as of May 25, 2018, the General Data Protection Regulation, (EU) 2016/679, or GDPR. This directive imposes several requirements relating to the consent of the individuals to whom the personal data relates, the information provided to the individuals, notification of data processing obligations to the competent national data protection authorities and the security and confidentiality of the personal data. The GDPR also imposes strict rules on the transfer of personal data out of the European Union to the United States. Failure to comply with the requirements of the Data Protection Directive (which governs the collection and use of personal health data in the European Union), the GDPR, and the related national data protection laws of the European Union Member States may result in fines and other administrative penalties. The GDPR introduced new data protection requirements in the European Union and substantial fines for breaches of the data protection rules. The GDPR regulations may impose additional responsibility and liability in relation to personal data that we process and we may be required to put in place additional mechanisms ensuring compliance with the new data protection rules. This may be onerous and adversely affect our business, financial condition, results of operations and prospects. Further, it is unclear at this time what effect Brexit will have on our ability to comply with the GDPR.

Healthcare and Privacy Laws and Regulation

Healthcare providers and third-party payors play a primary role in the recommendation and prescription of drug products that are granted regulatory approval. Arrangements with providers, consultants, third-party payors and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, reporting of payments to physicians and teaching hospitals and patient privacy laws and regulations and other healthcare laws and regulations that may constrain our business and/or financial arrangements. Restrictions under applicable federal and state healthcare and privacy laws and regulations, include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid; a person or entity need not have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it in order to have committed a violation. Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from government healthcare programs. In addition, the government may assert that a claim that includes items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act, or the FCA;

- the federal civil and criminal false claims laws, including the civil FCA, and civil monetary penalties laws, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious or fraudulent; knowingly making a false statement or record material to a false or fraudulent claim or obligation to pay or transmit money or property to the federal government; or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay money to the federal government. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to “cause” the submission of false or fraudulent claims. The FCA also permits a private individual acting as a “whistleblower” to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery. When an entity is determined to have violated the civil FCA, the government may impose civil fines and penalties for each false claim, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs;
- the federal civil monetary penalties laws, which impose civil fines for, among other things, the offering or transfer or remuneration to a Medicare or state healthcare program beneficiary if the person knows or should know it is likely to influence the beneficiary’s selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state health care program, unless an exception applies;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created additional federal civil and criminal laws that prohibit, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services; similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, including the Final Omnibus Rule published in January 2013, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys’ fees and costs associated with pursuing federal civil actions;
- the federal transparency requirements known as the federal Physician Payments Sunshine Act, under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the Affordable Care Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies to report annually to the Centers for Medicare & Medicaid Services, or CMS, within the U.S. Department of Health and Human Services, or HHS, information related to payments and other transfers of value made by that entity to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. In addition, many states also require reporting of payments or other transfers of value. Many of these laws differ from each other in significant ways, are often not pre-empted, and may have a more prohibitive effect than the Sunshine Act, thus further complicating compliance efforts;
- federal price reporting laws, which require manufacturers to calculate and report complex pricing metrics to government programs, where such reported prices may be used in the calculation of reimbursement and/or discounts on approved products;
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to healthcare items or services that are reimbursed by non-governmental third-party payors, including private insurers;

- many state laws that govern the privacy of personal information in specified circumstances, for example, in California, the California Consumer Protection Act, or the CCPA, which will go into effect on January 1, 2020, establishes a new privacy framework for covered businesses by creating an expanded definition of personal information, establishing new data privacy rights for consumers in the State of California, imposing special rules on the collection of consumer data from minors, and creating a new and potentially severe statutory damages framework for violations of the CCPA and for businesses that fail to implement reasonable security procedures and practices to prevent data breaches. While clinical trial data and information governed by HIPAA are currently exempt from the current version of the CCPA, other personal information collection practices may be subject to the CCPA and possible changes to the CCPA may broaden its scope; and
- some state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring manufacturers to report information related to payments to physicians and other healthcare providers, marketing expenditures, and drug pricing information. Certain state and local laws require the registration of pharmaceutical sales and medical representatives. State and foreign laws, including for example the GDPR, also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

In addition to the above, on November 20, 2020, the Office of Inspector General, or OIG, finalized further modifications to the federal Anti-Kickback Statute. Under the final rules, OIG added safe harbor protections under the Anti-Kickback Statute for certain coordinated care and value-based arrangements among clinicians, providers, and others. The final rule (with some exceptions) became effective January 19, 2021. We continue to evaluate what effect, if any, this rule will have on our business.

Additionally, we are subject to state and foreign equivalents of each of the healthcare laws and regulations described above, among others, some of which may be broader in scope and may apply regardless of the payor. Many U.S. states have adopted laws similar to the federal Anti-Kickback Statute and FCA that may apply to our business practices, including, but not limited to, research, distribution, sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental payors, including private insurers. In addition, some states have passed laws that require pharmaceutical companies to comply with the April 2003 Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers and/or the Pharmaceutical Research and Manufacturers of America's Code on Interactions with Healthcare Professionals. Several states also impose other marketing restrictions or require pharmaceutical companies to make marketing or price disclosures to the state. There are ambiguities as to what is required to comply with these state requirements and if we fail to comply with an applicable state law requirement, we could be subject to penalties. Finally, there are state and foreign laws governing the privacy and security of health information (e.g., the California Consumer Privacy Act), many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Pharmaceutical Insurance Coverage and Healthcare Reform

In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Thus, even if a product candidate is approved, sales of the product will depend, in part, on the extent to which third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations, provide coverage, and establish adequate reimbursement levels for, the product. In the United States, no uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. The process for determining whether a third-party payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, and reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the approved products for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable regulatory approvals. Additionally, companies may also need to provide discounts to purchasers, private health plans or government healthcare programs. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover a product could reduce physician utilization once the product is approved and have a material adverse effect on sales, results of operations and financial condition. Additionally, a third-party payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement can differ significantly from payor to payor.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of products have been a focus in this effort. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical products, limiting coverage and the amount of reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit a company's revenue generated from the sale of any approved products. Even if we do receive a favorable coverage determination for our products by third-party payors, coverage policies and third-party payor reimbursement rates may change at any time.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, such as bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their commercial products, which has resulted in several Congressional inquiries and proposed and enacted state and federal legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. Congress has indicated that it will continue to seek new legislative measures to control drug costs.

Further, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017, or the Right to Try Act, was signed into law. The law, among other things, provides a federal framework for certain patients to request access to certain investigational new drug products that have completed a Phase I clinical trial and that are undergoing investigation for FDA approval. There is no obligation for a pharmaceutical manufacturer to make its drug products available to eligible patients as a result of the Right to Try Act.

Outside the United States, ensuring coverage and adequate payment for a product also involves challenges. Pricing of prescription pharmaceuticals is subject to government control in many countries. Pricing negotiations with government authorities can extend well beyond the receipt of regulatory approval for a product and may require a clinical trial that compares the cost-effectiveness of a product to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in commercialization.

In the European Union, pricing and reimbursement schemes vary widely from country to country. Some countries provide that products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies or so-called health technology assessments, in order to obtain reimbursement or pricing approval. For example, the European Union provides options for its member states to restrict the range of products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the product on the market. Other member states allow companies to fix their own prices for products but monitor and control prescription volumes and issue guidance to physicians to limit prescriptions. Recently, many countries in the European Union have increased the amount of discounts required on pharmaceuticals and these efforts could

continue as countries attempt to manage healthcare expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the European Union. The downward pressure on healthcare costs in general, particularly prescription products, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states, and parallel trade, i.e., arbitrage between low-priced and high-priced member states, can further reduce prices. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any products, if approved in those countries.

Employees

As of December 31, 2020, we had 104 full-time employees, including approximately 37 employees with M.D. and/or Ph.D. degrees and approximately 64 employees directly engaged in research and development, with the rest providing administrative, business and operations support. None of our employees are represented by labor unions or covered by collective bargaining agreements. We consider the relationship with our employees to be good.

We have, since our inception, worked to create a high-performing, inclusive and diverse workforce, which is a core element of our operating culture. We have deliberately sought to secure top talent with a diversity of thought, experiences and backgrounds who are committed to making a difference in the lives of patients with neuroscience diseases. We believe that, by embracing differences, we have a unique advantage in challenging the status quo to apply innovative thinking to long-existing medical challenges. As of December 31, 2020, our workforce was self-reportedly approximately 48% women and approximately 30% Asian, Hispanic, Latino, Black or African American, and our senior leadership was 75% women or minorities, reflecting the workforce we strive to create throughout the company.

Human Capital

We believe that our single most important asset that differentiates us now and into the future is our employees. Our human capital resource objectives include finding and attracting the best talent and inspiring them to bring their best to Cerevel each and every day. We strive to achieve these objectives through competitive compensation programs and cutting-edge benefits that are intended to meet employees where they are. Our culture underpins all that we do and is anchored in our core values of trust, courage, respect, curiosity and compassion. We strive to be inclusive and diverse in thought, action and in the people who join us. To ensure that this is knitted into the fiber of our organization, we are implementing initiatives across our entire workforce through company-wide workshops, targeted hiring and internship objectives, supplier and vendor diversity programs and inclusivity plans for ongoing and new clinical studies, the achievement of which are an element in our annual incentive plan goals for 2021. We also regularly conduct surveys to gauge employee engagement and to create an ongoing open dialogue with our employees. We are also committed to professional development at every level of our organization through real-time work experiences as well as other learning opportunities and training programs.

Corporate Information

Old Cerevel was formed as a Delaware corporation in 2018. ARYA was incorporated as a blank check company on February 20, 2020 as a Cayman Islands exempted company formed for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses.

On June 4, 2020, ARYA consummated the initial public offering, or the IPO, of 14,950,000 units, which included the exercise in full of the underwriters' option to purchase an additional 1,950,000 units at the initial public offering price to cover over-allotments. Each unit consists of one Class A ordinary share and one-third of one redeemable warrant, which we refer to as the Public Warrants, each whole Public Warrant entitling the holder thereof to purchase one Class A ordinary share at an exercise price of \$11.50 per share, subject to adjustment.

Simultaneous with the consummation of the IPO and the issuance and sale of the units, ARYA consummated the private placement of 499,000 private placement units at a price of \$10.00 per private placement unit, generating total proceeds of \$4,990,000. The private placement warrants included in the private placement units purchased by the Sponsor, or the Private Placement Warrants, are substantially similar to the Public Warrants, except that if held by the Sponsor or its permitted transferees, they (i) may be exercised for cash or on a cashless basis, (ii) are not subject to being called for redemption (except in certain circumstances when the Public Warrants are called for redemption and a certain price per Class A ordinary share threshold is met) and (iii) subject to certain limited exceptions including the Class A ordinary shares issuable upon exercise of the Private Placement Warrants, will be subject to transfer restrictions until 30 days following the consummation of ARYA's initial business combination.

On the Closing Date, ARYA consummated the Business Combination pursuant to the terms of the Business Combination Agreement. Pursuant to the Business Combination Agreement, on the Closing Date, the Domestication and Merger were also consummated.

Our principal corporate office is located at 222 Jacobs Street, Suite 200, Cambridge, MA 02141, and our telephone number is (844) 304-2048. Our website address is www.cerevel.com. The information contained in or accessible from our website is not incorporated by reference in this Annual Report or in any other filings we make with the SEC. We have included our website address in this Annual Report solely as an inactive textual reference.

We make available on or through our website certain reports and amendments to those reports that we file with or furnish to the SEC in accordance with the Securities Exchange Act of 1934, as amended, or the Exchange Act. These include our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, and our Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. We make this information available on or through our website free of charge as soon as reasonably practicable after we electronically file the information with, or furnish it to, the SEC.

The SEC also maintains a website that contains reports, proxy and information statements, and other information regarding us and other issuers that file electronically with the SEC. The SEC's Internet website address is <http://www.sec.gov>.

Item 1A. Risk Factors.

Investing in our securities involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with the other information in this Annual Report, including our consolidated financial statements and the related notes included in this Annual Report and in the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” before deciding whether to invest in our securities. The occurrence of one or more of the events or circumstances described in these risk factors, alone or in combination with other events or circumstances, may have a material adverse effect on our business, reputation, revenue, financial condition, results of operations and future prospects, in which event the market price of our common stock could decline, and you could lose part or all of your investment. Unless otherwise indicated, reference in this section and elsewhere in this Annual Report to our business being adversely affected, negatively impacted or harmed will include an adverse effect on, or a negative impact or harm to, the business, reputation, financial condition, results of operations, revenue and our future prospects. The material and other risks and uncertainties summarized above and described below are not intended to be exhaustive and are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. This Annual Report also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a number of factors, including the risks described below. See the section titled “Cautionary Note Regarding Forward-Looking Statements.”

Risks Related to Our Business

The successful development of pharmaceutical products is highly uncertain.

Successful development of pharmaceutical products is highly uncertain and is dependent on numerous factors, many of which are beyond our control. Product candidates that appear promising in the early phases of development may fail to reach the market for several reasons, including:

- clinical trial results may show the product candidates to be less effective than expected (for example, a clinical trial could fail to meet its primary or key secondary endpoint(s)) or have an unacceptable safety or tolerability profile;
- failure to receive the necessary regulatory approvals or a delay in receiving such approvals, which, among other things, may be caused by patients who fail the trial screening process, slow enrollment in clinical trials, patients dropping out of trials, patients lost to follow-up, length of time to achieve trial endpoints, additional time requirements for data analysis or NDA preparation, discussions with the FDA, an FDA request for additional preclinical or clinical data (such as long-term toxicology studies) or unexpected safety or manufacturing issues;
- preclinical study results may show the product candidate to be less effective than desired or to have harmful side effects;
- post-marketing approval requirements; or
- the proprietary rights of others and their competing products and technologies that may prevent our product candidates from being commercialized.

The length of time necessary to complete clinical trials and submit an application for marketing approval for a final decision by a regulatory authority varies significantly from one product candidate to the next and from one country to the next and may be difficult to predict.

Even if we are successful in obtaining marketing approval, commercial success of any approved products will also depend in large part on the availability of coverage and adequate reimbursement from third-party payors, including government payors such as the Medicare and Medicaid programs and managed care organizations in the United States or country specific governmental organizations in foreign countries, which may be affected by existing and future healthcare reform measures designed to reduce the cost of healthcare. Third-party payors could require us to conduct additional studies, including post-marketing studies related to the cost effectiveness of a product, to qualify for reimbursement, which could be costly and divert our resources. If government and other healthcare payors were not to provide coverage and adequate reimbursement for our products once approved, market acceptance and commercial success would be reduced.

In addition, if any of our product candidates receive marketing approval, we will be subject to significant regulatory obligations regarding the submission of safety and other post-marketing information and reports and registration, and will need to continue to comply (or ensure that our third-party providers comply) with cGMPs and GCPs for any clinical trials that we conduct post-approval. In addition, there is always the risk that we, a regulatory authority or a third party might identify previously unknown problems with a product post-approval, such as AEs of unanticipated severity or frequency. Compliance with these requirements is costly, and any failure to comply or other issues with our product candidates post-approval could adversely affect our business, financial condition and results of operations.

We are a clinical-stage biopharmaceutical company with a limited operating history. We have incurred significant financial losses since our inception and anticipate that we will continue to incur significant financial losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company with a limited operating history. We were formed in July 2018 and our operations to date have been limited to non-commercial activities. All of our product candidates were initially developed by Pfizer, which we in-licensed pursuant to a license agreement, or the Pfizer License Agreement, entered into shortly after our formation. We have not yet demonstrated an ability to generate revenues, obtain regulatory approvals, manufacture any product on a commercial scale or arrange for a third party to do so on our behalf or conduct sales and marketing activities necessary for successful product commercialization.

We have no products approved for commercial sale and have not generated any revenue from product sales to date, nor do we expect to generate any revenue from product sales for the next few years, if ever. We will continue to incur significant research and development and other expenses related to our preclinical and clinical development and ongoing operations. As a result, we are not profitable and have incurred losses in each period since our inception. Net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital. Our net losses totaled \$152.1 million and \$128.4 million for the years ended December 31, 2020 and 2019, respectively. As of December 31, 2020, we had an accumulated deficit of \$390.9 million and had not yet generated revenues. We expect to continue to incur significant losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of, and seek regulatory approvals for, our product candidates.

We anticipate that our expenses will increase substantially if, and as, we:

- advance our clinical-stage product candidates CVL-231, darigabat, tavapadon, CVL-781 and CVL-936 through clinical development, including as we complete our registration-directed Phase 3 program for our most advanced product candidate, tavapadon;
- headcount growth and associated costs as we expand our research and development and establish a commercial infrastructure;
- advance our preclinical-stage product candidates into clinical development;
- seek to identify, acquire and develop additional product candidates, including through business development efforts to invest in or in-license other technologies or product candidates;
- hire additional clinical, quality control, medical, scientific and other technical personnel to support our clinical operations;
- expand our operational, financial and management systems and increase personnel to support our operations;
- meet the requirements and demands of being a public company;
- maintain, expand and protect our intellectual property portfolio;
- make milestone, royalty or other payments due under the Pfizer License Agreement and any future in-license or collaboration agreements;
- seek regulatory approvals for any product candidates that successfully complete clinical trials; and

- undertake any pre-commercialization activities to establish sales, marketing and distribution capabilities for any product candidates for which we may receive regulatory approval in regions where we choose to commercialize our products on our own or jointly with third parties.

Biopharmaceutical product development entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate efficacy or an acceptable safety profile, gain regulatory approval, secure market access and reimbursement and become commercially viable, and therefore any investment in us is highly speculative. Accordingly, before making an investment in us, you should consider our prospects, factoring in the costs, uncertainties, delays and difficulties frequently encountered by companies in clinical development, especially clinical-stage biopharmaceutical companies such as ours. Any predictions you make about our future success or viability may not be as accurate as they would otherwise be if we had a longer operating history or a history of successfully developing and commercializing pharmaceutical products. We may encounter unforeseen expenses, difficulties, complications, delays and other known or unknown factors in achieving our business objectives.

Additionally, our expenses could increase beyond our expectations if we are required by the FDA or other regulatory authorities to perform clinical trials in addition to those that we currently expect, or if there are any delays in establishing appropriate manufacturing arrangements for or in completing our clinical trials or the development of any of our product candidates.

We have never generated revenue from product sales and may never be profitable.

Our ability to become and remain profitable depends on our ability to generate revenue or execute other business development arrangements. We do not expect to generate significant revenue, if any, unless and until we are able to obtain regulatory approval for, and successfully commercialize, the product candidates we are developing or may develop. Successful commercialization will require achievement of many key milestones, including demonstrating safety and efficacy in clinical trials, obtaining regulatory approval for these product candidates, manufacturing, marketing and selling those products for which we may obtain regulatory approval, satisfying any post-marketing requirements and obtaining reimbursement for our products from private insurance or government payors. Because of the uncertainties and risks associated with these activities, we are unable to accurately and precisely predict the timing and amount of revenues, the extent of any further losses or if or when we might achieve profitability. We may never succeed in these activities and, even if we do, we may never generate revenues that are significant enough for us to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

Our failure to become and remain profitable may depress the market price of our common stock and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations. If we continue to suffer losses as we have since our inception, investors may not receive any return on their investment and may lose their entire investment.

We will need substantial additional funding, and if we are unable to raise capital when needed, we could be forced to delay, reduce or terminate our product discovery and development programs or commercialization efforts.

Our operations have consumed substantial amounts of cash since inception. We expect to continue to spend substantial amounts to continue the clinical and preclinical development of our product candidates, including our ongoing Phase 3 program for tavapadon and ongoing and planned clinical trials for darigabat, CVL-231, CVL-871 and CVL-936. We will need to raise additional capital to complete our currently planned clinical trials and any future clinical trials. Other unanticipated costs may arise in the course of our development efforts. If we are able to gain marketing approval for product candidates that we develop, we will require significant additional amounts of funding in order to launch and commercialize such product candidates. We cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of any product candidate we develop and we may need substantial additional funding to complete the development and commercialization of our product candidates.

Our future need for additional funding depends on many factors, including:

- the scope, progress, results and costs of researching and developing our current product candidates, as well as other additional product candidates we may develop and pursue in the future;
- the timing of, and the costs involved in, obtaining marketing approvals for our product candidates and any other additional product candidates we may develop and pursue in the future;
- the number of future product candidates that we may pursue and their development requirements;
- subject to receipt of regulatory approval, the costs of commercialization activities for our product candidates, to the extent such costs are not the responsibility of any future collaborators, including the costs and timing of establishing product sales, marketing, distribution and manufacturing capabilities;
- subject to receipt of regulatory approval, revenue, if any, received from commercial sales of our product candidates or any other additional product candidates we may develop and pursue in the future;
- the achievement of milestones that trigger payments under the Pfizer License Agreement;
- the royalty payments due under the Pfizer License Agreement;
- the extent to which we in-license or acquire rights to other products, product candidates or technologies;
- our ability to establish collaboration arrangements for the development of our product candidates on favorable terms, if at all;
- our headcount growth and associated costs as we expand our research and development and establish a commercial infrastructure;
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights, including enforcing and defending intellectual property related claims; and
- the costs of operating as a public company.

We cannot be certain that additional funding will be available on acceptable terms, or at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, reduce or terminate our product development programs or plans for commercialization.

We believe that our existing cash and cash equivalents will enable us to fund our operating expense and capital expenditure requirements into 2023. Our estimate may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Further, changing circumstances, some of which may be beyond our control, could cause us to consume capital significantly faster than we currently anticipate, and we may need to seek additional funds sooner than planned.

Due to the significant resources required for the development of our pipeline, and depending on our ability to access capital, we must prioritize the development of certain product candidates over others. Moreover, we may fail to expend our limited resources on product candidates or indications that may have been more profitable or for which there is a greater likelihood of success.

We currently have five clinical-stage product candidates as well as several other product candidates that are at various stages of preclinical development. We seek to maintain a process of prioritization and resource allocation to maintain an optimal balance between aggressively pursuing our more advanced clinical-stage product candidates, such as tavapadon and darigabat, and ensuring the development of additional potential product candidates.

Due to the significant resources required for the development of our product candidates, we must decide which product candidates to pursue and advance and the amount of resources to allocate to each. Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular product candidates or therapeutic areas may not lead to the development of any viable commercial products and may divert resources away from better opportunities. If we make incorrect determinations regarding the viability or market potential of any of our product candidates or misread trends in the pharmaceutical industry, in particular for disorders of the brain and nervous system, our business, financial condition and results of operations

could be materially and adversely affected. As a result, we may fail to capitalize on viable commercial products or profitable market opportunities, be required to forego or delay pursuit of opportunities with other product candidates or other diseases and disease pathways that may later prove to have greater commercial potential than those we choose to pursue, or relinquish valuable rights to such product candidates through collaboration, licensing or royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain sole development and commercialization rights.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

We expect our expenses to increase in connection with our planned operations. Unless and until we can generate a substantial amount of revenue from our product candidates, we expect to finance our future cash needs through public or private equity offerings, debt financings, royalty-based financing, collaborations, licensing arrangements or other sources, or any combination of the foregoing. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans.

To the extent that we raise additional capital through the sale of common stock, convertible securities or other equity securities, your ownership interest may be diluted, and the terms of these securities could include liquidation or other preferences and anti-dilution protections that could adversely affect your rights as a common stockholder. In addition, royalty-based financing or debt financing, if available, may result in our relinquishing rights to valuable future revenue streams or fixed payment obligations and may involve agreements that include restrictive covenants that limit our ability to take specific actions, such as incurring additional debt, making capital expenditures, creating liens, redeeming stock or declaring dividends, that could adversely impact our ability to conduct our business. In addition, securing financing could require a substantial amount of time and attention from our management team and may divert a disproportionate amount of our attention away from day-to-day activities, which may adversely affect our management team's ability to oversee the development of our product candidates.

If we raise additional capital through collaborations or marketing, distribution or licensing arrangements, or royalty-based financings with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates, or grant licenses on terms that may not be favorable to us. If we are unable to raise additional capital when needed, we may be required to delay, reduce or terminate our product discovery and development programs, commercialization efforts, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

The amount of our future losses is uncertain and our quarterly and annual operating results may fluctuate significantly or fall below the expectations of investors or securities analysts, each of which may cause our stock price to fluctuate or decline.

Our quarterly and annual operating results may fluctuate significantly in the future due to a variety of factors, many of which are outside of our control and may be difficult to predict, including the following:

- the timing and success or failure of clinical trials for our product candidates or competing product candidates, or any other change in the competitive landscape of our industry,
- our ability to successfully recruit and retain subjects for clinical trials, and any delays caused by difficulties in such efforts, including as a result of COVID-19;
- the risk/benefit profile, cost and reimbursement policies with respect to our product candidates, if approved, and existing and potential future therapeutics that compete with our product candidates;
- our ability to obtain marketing approval for our product candidates and the timing and scope of any such approvals we may receive;
- the timing and cost of, and level of investment in, research and development activities relating to our product candidates, which may change from time to time;

- the cost of manufacturing our product candidates, which may vary depending on the quantity of production and the terms of our agreements with manufacturers;
- our ability to attract, hire and retain qualified personnel;
- expenditures that we will or may incur to develop additional product candidates;
- the level of demand for our product candidates should they receive approval, which may vary significantly;
- the changing and volatile U.S. and global economic environments; and
- future accounting pronouncements or changes in our accounting policies.

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our operating results or revenue fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated guidance we may provide.

Our business is highly dependent on the success of our product candidates. If we are unable to successfully complete clinical development, obtain regulatory approval for or commercialize one or more of our product candidates, or if we experience delays in doing so, our business will be materially harmed.

To date, as an organization, we have not completed any clinical trials or development of any product candidates. Our future success and ability to generate revenue from our product candidates, which we do not expect will occur for several years, if ever, is dependent on our ability to successfully develop, obtain regulatory approval for and commercialize one or more of our product candidates. We have initiated our registration-directed Phase 3 program for our most advanced product candidate, tavapadon, which includes two trials in early-stage Parkinson's, one trial in late-stage Parkinson's and an open-label safety extension trial. All of our other product candidates are in earlier stages of development and will require substantial additional investment for clinical development, regulatory review and approval in one or more jurisdictions. If any of our product candidates encounters safety or efficacy problems, development delays or regulatory issues or other problems, our development plans and business would be materially harmed.

We may not have the financial resources to continue development of our product candidates if we experience any issues that delay or prevent regulatory approval of, or our ability to commercialize, our product candidates, including:

- our inability to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that our product candidates are safe and effective;
- insufficiency of our financial and other resources to complete the necessary clinical trials and preclinical studies;
- negative or inconclusive results from our clinical trials, preclinical studies or the clinical trials of others for product candidates similar to ours, leading to a decision or requirement to conduct additional clinical trials or preclinical studies or abandon a program;
- product-related adverse events experienced by subjects in our clinical trials, including unexpected toxicity results, or by individuals using drugs or therapeutic biologics similar to our product candidates;
- delays in submitting an IND or comparable foreign applications or delays or failure in obtaining the necessary approvals from regulators to commence a clinical trial or a suspension or termination, or hold, of a clinical trial once commenced;
- conditions imposed by the FDA, the EMA or comparable foreign regulatory authorities regarding the scope or design of our clinical trials;

- poor effectiveness of our product candidates during clinical trials;
- better than expected performance of control arms, such as placebo groups, which could lead to negative or inconclusive results from our clinical trials;
- delays in enrolling subjects in our clinical trials;
- high drop-out rates of subjects from our clinical trials;
- inadequate supply or quality of product candidates or other materials necessary for the conduct of our clinical trials;
- higher than anticipated clinical trial or manufacturing costs;
- unfavorable FDA, EMA or comparable regulatory authority inspection and review of our clinical trial sites;
- failure of our third-party contractors or investigators to comply with regulatory requirements or the clinical trial protocol or otherwise meet their contractual obligations in a timely manner, or at all;
- delays and changes in regulatory requirements, policy and guidelines, including the imposition of additional regulatory oversight around clinical testing generally or with respect to our therapies in particular; or
- varying interpretations of data by the FDA, EMA and comparable foreign regulatory authorities.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time-consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

We are not permitted to commercialize, market, promote or sell any product candidate in the United States without obtaining regulatory approval from the FDA. Foreign regulatory authorities, such as the EMA, impose similar requirements. The time required to obtain approval by the FDA and comparable foreign authorities is inherently unpredictable, but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. To date, we have not submitted an NDA to the FDA or similar drug approval submissions to comparable foreign regulatory authorities for our most advanced product candidate, tavapadon, or any other product candidate. We must complete additional preclinical studies and clinical trials to demonstrate the safety and efficacy of our product candidates in humans before we will be able to obtain these approvals.

Clinical testing is expensive, difficult to design and implement, can take many years to complete and is inherently uncertain as to outcome. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. The clinical development of our initial and potential additional product candidates is susceptible to the risk of failure inherent at any stage of development, including failure to demonstrate efficacy in a clinical trial or across a broad population of patients, the occurrence of adverse events that are severe or medically or commercially unacceptable, failure to comply with protocols or applicable regulatory requirements and determination by the FDA or any comparable foreign regulatory authority that a product candidate may not continue development or is not approvable. It is possible that even if any of our product candidates have a beneficial effect, that effect will not be detected during clinical evaluation as a result of one or more of a variety of factors, including the size, duration, design, measurements, conduct or analysis of our clinical trials. Conversely, as a result of the same factors, our clinical trials may indicate an apparent positive effect of such product candidate that is greater than the actual positive effect, if any. Similarly, in our clinical trials we may fail to detect toxicity of, or intolerability caused by, such product candidate, or mistakenly believe that our product candidates are toxic or not well tolerated when that is not in fact the case. Serious adverse events or other adverse events, as well as tolerability issues, could hinder or prevent market acceptance of the product candidate at issue.

Our current and future product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree as to the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from clinical trials or preclinical studies;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of an NDA to the FDA or other submission or to obtain regulatory approval in the United States, the European Union or elsewhere;
- the FDA or comparable foreign regulatory authorities may find deficiencies with or fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

This lengthy approval process as well as the unpredictability of clinical trial results may result in our failing to obtain regulatory approval to market any product candidate we develop, which would substantially harm our business, results of operations and prospects. The FDA and other comparable foreign authorities have substantial discretion in the approval process and determining when or whether regulatory approval will be granted for any product candidate that we develop. Even if we believe the data collected from future clinical trials of our product candidates are promising, such data may not be sufficient to support approval by the FDA or any other regulatory authority.

In addition, even if we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products, may grant approval contingent on the performance of costly post-marketing clinical trials or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates.

The FDA, EMA or comparable foreign regulatory authorities may disagree with our regulatory plan for our product candidates.

The general approach for FDA approval of a new drug is dispositive data from two or more well-controlled Phase 3 clinical trials of the product candidate in the relevant patient population. Phase 3 clinical trials typically involve a large number of patients, have significant costs and take years to complete. In addition, there is no assurance that the endpoints and trial designs that we intend to use for our planned clinical trials, including those that we have developed based on feedback from regulatory agencies or those that have been used for the approval of similar drugs, will be acceptable for future approvals. For example, while we have designed our registration-directed Phase 3 program for tavapadon after receiving input and feedback from the FDA, there can be no assurance that the design of our planned clinical trials will be satisfactory to the FDA or that the FDA will not require us to modify our trials or conduct additional testing, or that completing these trials will result in regulatory approval. See the section entitled “*Business—Our Solution—Tavapadon—Ongoing Clinical Trials—Phase 3 Fixed-Dose Early-Stage Parkinson’s Trial*” for a description of our discussions with the FDA regarding the proposed primary endpoint of our Phase 3 trials of tavapadon in early-stage Parkinson’s. Even if our Phase 3 clinical trials in early-stage

Parkinson's achieve their primary endpoint, there can be no assurance that the FDA will find them sufficient to support approval if, for example, FDA determines the contribution of the MDS-UPDRS Part II score to the primary endpoint results to be inadequate. Our Phase 2 early-stage Parkinson's trial of tavapadon did not use the MDS-UPDRS Part II score as a primary endpoint and was therefore not powered to show a statistically significant difference from placebo for this measure. In addition, based on our end-of-Phase 2 meeting with the FDA where we presented single-dose ECG, multiple-dose ECG and a model-based analysis of Phase 1 data, we plan to collect time-matched PK and ECG measures in a subset of patients as a sub-study in our planned Phase 3 fixed-dose early-stage Parkinson's trial. However, there can be no assurance that we will not be required to conduct additional testing on the safety and tolerability of tavapadon, including with respect to arrhythmia. Additionally, we are developing CVL-871 for the treatment of dementia-related apathy. There are no currently approved therapies for dementia-related apathy, and we may experience challenges in defining this indication. There are limited precedents for trial design, trial endpoints and regulatory pathway for this indication, which may make clinical development and regulatory approval of CVL-871 more challenging.

Our clinical trial results may not support approval of our product candidates. In addition, our product candidates could fail to receive regulatory approval, or regulatory approval could be delayed, for many reasons, including the following:

- the FDA, EMA or comparable foreign regulatory authorities may not file or accept our NDA or marketing application for substantive review;
- the FDA, EMA or comparable foreign regulatory authorities may disagree with the dosing regimen, design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA, EMA or comparable foreign regulatory authorities that our product candidates are safe and effective for any of their proposed indications;
- the results of our clinical trials may not meet the level of statistical significance required by the FDA, EMA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that our product candidates' clinical and other benefits outweigh their safety risks;
- the FDA, EMA or comparable foreign regulatory authorities may disagree with our interpretation of data from our preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to the satisfaction of the FDA, EMA or comparable foreign regulatory authorities to support the submission of an NDA or other comparable submission in foreign jurisdictions or to obtain regulatory approval in the United States or elsewhere;
- the FDA, EMA or comparable foreign regulatory authorities may find deficiencies with or fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA, EMA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

Business interruptions resulting from the COVID-19 outbreak or similar public health crises could cause a disruption of the development of our product candidates and adversely impact our business.

Public health crises such as pandemics or similar outbreaks could adversely impact our business. The COVID-19 pandemic is evolving, and to date has led to the implementation of various responses, including government-imposed quarantines, travel restrictions and other public health safety measures. In response to the onset of the COVID-19 pandemic, we paused patient screening and enrollment of our Phase 3 trials of tavapadon for the treatment of Parkinson's in March 2020 (which we subsequently resumed in the second half of 2020) and concluded dosing of Cohort 1 of our Phase 1 SAD trial of CVL-936 after receiving sufficient clinical data for the intended purposes for this trial. The continued spread of COVID-19 or other global health matters, such as other pandemics, could further adversely impact our clinical trials or preclinical studies. We are closely monitoring the impact of the

COVID-19 pandemic on all aspects of our business, including how it will impact our operations and the operations of our suppliers, vendors and business partners. We have taken steps to identify and mitigate the adverse impacts on, and risks to, our business posed by its spread and actions taken by governmental and health authorities to address this pandemic; however, the spread of COVID-19 has caused us to modify our business practices, including implementing a temporary work-from-home policy for all employees who are able to perform their duties remotely, temporarily restricting all non-essential travel and discouraging employee attendance at industry events and in-person work-related meetings. We expect to continue to take actions as may be required or recommended by government authorities or as we determine are in the best interests of our employees and other business partners in light of COVID-19.

In addition, the onset of the COVID-19 pandemic caused brief pauses in patient screening and enrollment in our Phase 3 trials of tavapadon for the treatment of Parkinson's (which we subsequently resumed in the second half of 2020), and we remain particularly vigilant about patient safety given the elderly nature of this population. While we have taken measures to revise clinical trial protocols to allow for remote visits, including home delivery of study medication, home health care visits to collect safety data and telemedicine visits to collect clinician-based trial assessments, such measures may not be sufficient to prevent missing data from impacting trial outcomes or delays in enrollment and trial completion caused by COVID-19. The primary endpoint in our early-stage Parkinson's trials is based, in part, on a physical assessment of motor symptoms performed by a clinician, which cannot be completed remotely, and, if a substantial number of subjects are unable to complete in-person assessments, the completeness and interpretability of the data that we are able to collect from these trials or our other clinical trials would be impacted, which may require changes to the statistical analysis plan, the enrollment of additional subjects or otherwise negatively affect our ability to use such data to obtain regulatory approval. Similarly, if patients are reluctant to participate in our trials due to fears of COVID-19 infection resulting from regular visits to a healthcare facility or unable to comply with clinical trial protocols due to quarantines or travel restrictions that impede patient movement or interrupt healthcare services, we may not be able to meet our current trial completion timelines.

In addition, COVID-19 may impact our ability to retain principal investigators and site staff for our clinical trials as healthcare providers may have heightened exposure to COVID-19 if an outbreak occurred in their geography or may be impacted due to prioritization of hospital resources toward the outbreak and restrictions on travel. Our clinical trial sites may be located in geographies that are disproportionately affected by the COVID-19 pandemic or actions taken by governmental and health authorities to address the pandemic. Furthermore, COVID-19 may also negatively affect the operations of third-party contract research organizations that we rely upon to carry out our clinical trials or the operations of our third-party manufacturers, which could result in delays or disruptions in the supply of our product candidates. Any negative impact COVID-19 has on patient enrollment, site staffing or treatment or the timing and execution of our clinical trials could cause costly delays to our clinical trial activities, which could adversely affect our ability to obtain regulatory approval for and to commercialize our product candidates, increase our operating expenses and have a material adverse effect on our business and financial results. These measures could negatively affect our business. COVID-19 has also caused volatility in the global financial markets and threatened a slowdown in the global economy, which may negatively affect our ability to raise additional capital on attractive terms or at all.

Three vaccines for COVID-19 were granted Emergency Use Authorization by the FDA in late 2020 and early 2021, and more are likely to be authorized in the coming months. The resultant demand for vaccines and potential for manufacturing facilities and materials to be commandeered under the Defense Production Act of 1950, or equivalent foreign legislation, may make it more difficult to obtain materials or manufacturing slots for the products needed for our clinical trials, which could also lead to delays in our ongoing trials.

The extent to which COVID-19 impacts our business, results of operation and financial condition will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, new information that may emerge concerning the severity of COVID-19 or the effectiveness of actions to contain COVID-19 or treat its impact, among others. In addition, recurrences or additional waves of COVID-19 cases could cause other widespread or more severe impacts depending on where infection rates are highest. We cannot presently predict the scope and severity of any potential business shutdowns or disruptions, but if we or any of the third parties with whom we engage were to experience prolonged business shutdowns or other disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively affected, which could have a material adverse impact on our business, results of operation and financial condition.

We are dependent on third parties having accurately generated, collected, interpreted and reported data from certain preclinical studies and clinical trials that were previously conducted for our product candidates.

We have in-licensed the rights to all of our current product candidates from Pfizer, for which they undertook prior research and development. We had no involvement with or control over the preclinical and clinical development of any of our product candidates prior to obtaining our in-license. In addition, we had no involvement in the development of third-party agents designed to be used in combination with our product candidates, such as L-dopa, which we intend to study in combination with tavapadon in our Phase 3 late-stage Parkinson's trial. Therefore, we are dependent on these third parties having conducted their research and development in accordance with the applicable protocols, legal and regulatory requirements, and scientific standards; having accurately reported the results of all preclinical studies and clinical trials conducted with respect to such product candidates and having correctly collected and interpreted the data from these studies and trials. These risks also apply to any additional product candidates that we may acquire or in-license in the future. If these activities were not compliant, accurate or correct, the clinical development, regulatory approval or commercialization of our product candidates will be adversely affected.

If our clinical trials fail to replicate positive results from earlier preclinical studies or clinical trials conducted by us or third parties, we may be unable to successfully develop, obtain regulatory approval for or commercialize our product candidates.

The results observed from preclinical studies or early-stage clinical trials of our product candidates may not necessarily be predictive of the results of later-stage clinical trials that we conduct. Similarly, positive results from such preclinical studies or early-stage clinical trials may not be replicated in our subsequent preclinical studies or clinical trials. For instance, while darigabat demonstrated anti-epileptic activity similar to lorazepam, a commonly prescribed BZD, in a Phase 2 photoepilepsy trial, only seven patients were treated with darigabat in that trial and we may not be able to replicate the observed results from that trial in our ongoing Phase 2 proof-of-concept trial in focal epilepsy. Furthermore, our product candidates may not be able to demonstrate similar activity or adverse event profiles as other product candidates that we believe may have similar profiles. For instance, although they both activate muscarinic receptors, CVL-231 may not be able to replicate the anti-psychotic benefit observed in prior clinical trials of xanomeline.

In addition, in our planned future clinical trials, we may utilize clinical trial designs or dosing regimens that have not been tested in prior clinical trials. For instance, in our Phase 3 clinical trials for tavapadon in early- and late-stage Parkinson's, we are using a slower titration method than was used in prior clinical trials. While we believe that the slower titration method may mitigate certain gastrointestinal and other adverse events, we cannot provide any assurances that it will provide the desired effects and it may result in unanticipated issues.

There can be no assurance that any of our clinical trials will ultimately be successful or support further clinical development of any of our product candidates. There is a high failure rate for drugs proceeding through clinical trials. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development, and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, preclinical findings made while clinical trials were underway or safety or efficacy observations made in preclinical studies and clinical trials, including previously unreported adverse events.

Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials nonetheless failed to obtain FDA, EMA or comparable foreign regulatory authority approval. For instance, prior clinical trials conducted by Pfizer with certain of our product candidates before we in-licensed them were terminated before conclusion of the trials. These trials included a Phase 2 trial of tavapadon in late-stage Parkinson's, a concurrent Phase 2 clinical trial of tavapadon in early-stage Parkinson's and two Phase 2 trials of darigabat. These clinical trials did not meet their primary endpoints and, even though we believe the data generated from these trials support our rationale for further clinical development of these product candidates, our belief is partially based on post-hoc analyses of such data.

We may incur unexpected costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

To obtain the requisite regulatory approvals to commercialize any of our product candidates, we must demonstrate through extensive preclinical studies and clinical trials that our product candidates are safe and effective in humans. We may experience delays in completing our clinical trials or preclinical studies and initiating or completing additional clinical trials or preclinical studies, including as a result of regulators not allowing or delay in allowing clinical trials to proceed under an IND, or not approving or delaying approval for any clinical trial grant or similar approval we need to initiate a clinical trial. We may also experience numerous unforeseen events during our clinical trials that could delay or prevent our ability to receive marketing approval or commercialize the product candidates we develop, including:

- regulators, IRBs or other reviewing bodies may not authorize us or our investigators to commence a clinical trial, or to conduct or continue a clinical trial at a prospective or specific trial site;
- we may not reach agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- we may experience challenges or delays in recruiting principal investigators or study sites to lead our clinical trials;
- the number of subjects or patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be insufficient or slower than we anticipate, and the number of clinical trials being conducted at any given time may be high and result in fewer available patients for any given clinical trial, or patients may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors, including those manufacturing our product candidates or conducting clinical trials on our behalf, may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we may have to amend clinical trial protocols submitted to regulatory authorities or conduct additional studies to reflect changes in regulatory requirements or guidance, which it may be required to resubmit to an IRB and regulatory authorities for re-examination;
- regulators or other reviewing bodies may find deficiencies with, fail to approve or subsequently find fault with the manufacturing processes or facilities of third-party manufacturers with which we enter into agreements for clinical and commercial supplies, or the supply or quality of any product candidate or other materials necessary to conduct clinical trials of our product candidates may be insufficient, inadequate or not available at an acceptable cost, or we may experience interruptions in supply; and
- the potential for approval policies or regulations of the FDA or the applicable foreign regulatory agencies to significantly change in a manner rendering our clinical data insufficient for approval.

Regulators or IRBs of the institutions in which clinical trials are being conducted may suspend, limit or terminate a clinical trial, or data monitoring committees may recommend that we suspend or terminate a clinical trial, due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Negative or inconclusive results from our clinical trials or preclinical studies could mandate repeated or additional clinical trials and, to the extent we choose to conduct clinical trials in other indications, could result in changes to or delays in clinical trials of our product candidates in such other indications. We do not know whether any clinical trials that we conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market our product candidates for the indications that we are pursuing. If later-stage clinical trials do not produce favorable results, our ability to obtain regulatory approval for our product candidates will be adversely impacted.

Our failure to successfully initiate and complete clinical trials and to demonstrate the efficacy and safety necessary to obtain regulatory approval to market our product candidates would significantly harm our business. Our product candidate development costs will also increase if we experience delays in testing or regulatory approvals and we may be required to obtain additional funds to complete clinical trials. We cannot assure you that our clinical trials will begin as planned or be completed on schedule, if at all, or that we will not need to restructure or otherwise modify our trials after they have begun. Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates, which may harm our business and results of operations. In addition, many of the factors that cause, or lead to, delays of clinical trials may ultimately lead to the denial of regulatory approval of our product candidates.

Even if we complete the necessary preclinical studies and clinical trials, the marketing approval process is expensive, time-consuming and uncertain and may prevent us from obtaining approvals for the commercialization of our product candidates.

Any product candidate we develop and the activities associated with its development and commercialization, including its design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, and distribution, are subject to comprehensive regulation by the FDA and other regulatory authorities in the United States and by comparable authorities in other countries. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate in a given jurisdiction. We have not received approval to market any product candidates from regulatory authorities in any jurisdiction and it is possible that none of the product candidates we are developing or may seek to develop in the future will ever obtain regulatory approval.

We have no experience in submitting and supporting the applications necessary to gain marketing approvals and expect to rely on third-party CROs or regulatory consultants to assist us in this process. Securing regulatory approval requires the submission of extensive preclinical and clinical data and supporting information to the various regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing regulatory approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. Any product candidates we develop may not be effective, may be only moderately effective, or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude its obtaining marketing approval or prevent or limit commercial use.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity, and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. The FDA and comparable authorities in other countries have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit, or prevent marketing approval of a product candidate. Any marketing approval that we may ultimately obtain could be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

If we experience delays in obtaining approval or if we fail to obtain approval of any product candidates we may develop, the commercial prospects for those product candidates may be harmed, and our ability to generate revenues will be materially impaired.

Interim, topline and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data becomes available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim, topline or preliminary data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Preliminary or topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our reputation and business prospects.

If we do not achieve our projected development and commercialization goals in the timeframes we announce and expect, the development and commercialization of our product candidates may be delayed, and our business and results of operations may be harmed.

For planning purposes, we sometimes estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development objectives. These milestones may include our expectations regarding the commencement or completion of scientific studies and clinical trials, the submission of regulatory filings or commercialization objectives. From time to time, we may publicly announce the expected timing of some of these milestones, such as the completion of an ongoing clinical trial, the initiation of other clinical programs, receipt of marketing approval or a commercial launch of a product. The achievement of many of these milestones may be outside of our control. All of these milestones are based on a variety of assumptions which, if not realized as expected, may cause the timing of achievement of the milestones to vary considerably from our estimates, including:

- our available capital resources or capital constraints we experience;
- the rate of progress, costs and results of our clinical trials and research and development activities, including the extent of scheduling conflicts with participating clinicians and collaborators;
- our ability to identify and enroll patients who meet clinical trial eligibility criteria;
- our receipt of approvals by the FDA and other regulatory authorities and the timing thereof;
- other actions, decisions or rules issued by regulators;
- our ability to access sufficient, reliable and affordable supplies of materials used to manufacture of our product candidates;
- the efforts of our collaborators with respect to the commercialization of our product candidates; and
- the securing of, costs related to, and timing issues associated with, product manufacturing as well as sales and marketing activities.

If we fail to achieve announced milestones in the timeframes we expect, the development and commercialization of our product candidates may be delayed, and our business and results of operations may be harmed.

We may be subject to additional risks because we intend to evaluate our product candidates in combination with other compounds.

We intend to evaluate our product candidates in combination with other compounds. The use of our product candidates in combination with other compounds may subject us to risks that we would not face if our product candidates were being administered as a monotherapy. For instance, in our Phase 3 late-stage Parkinson's trial, we are evaluating tavapadon in combination with L-dopa for the treatment of late-stage Parkinson's, and L-dopa's safety issues may be improperly attributed to tavapadon or the administration of tavapadon with L-dopa may result in safety issues that such other therapies or tavapadon would not have when used alone. The outcome and cost of developing a product candidate to be used with other compounds is difficult to predict and dependent on a number of factors that are outside our control. If we experience efficacy or safety issues in our clinical trials in which our product candidates are being administered with other compounds, we may not receive regulatory approval for our product candidates, which could prevent us from ever generating revenue or achieving profitability.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with our protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion.

Patient enrollment is affected by many factors, including:

- the effects of COVID-19 on our ability to recruit and retain patients, including as a result of potential heightened exposure to COVID-19, prioritization of hospital resources toward the outbreak and unwillingness by patients to enroll or comply with clinical trial protocols if quarantines or travel restrictions impede patient movement or interrupt healthcare services;
- the patient eligibility criteria defined in the protocol;
- the size of the patient population required for analysis of the trial's primary endpoints;
- the proximity of patients to study sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- competing clinical trials and clinicians' and patients' perceptions as to the potential advantages and risks of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications that we are investigating;
- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in our clinical trials will drop out of the trials before completion.

Because certain of the prior clinical trials of our product candidates were terminated prior to the conclusion of the trial, we may experience challenges in recruiting principal investigators and patients to participate in ongoing and future clinical trials for such product candidates if we are unable to sufficiently demonstrate the potential of such product candidates to them. In addition, our clinical trials may compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we may conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials in such clinical trial site. Furthermore, if significant adverse events or other side effects are observed in any of our clinical trials, we may have difficulty recruiting patients to our trials and patients may drop out of our trials.

Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays or might require us to abandon one or more clinical trials or our development efforts altogether. Delays in patient enrollment may result in increased costs, affect the timing or outcome of the planned clinical trials, product candidate development and approval process and jeopardize our ability to seek and obtain the regulatory approval required to commence product sales and generate revenue, which could prevent completion of these trials, adversely affect our ability to advance the development of our product candidates, cause the value of the company to decline and limit our ability to obtain additional financing if needed.

Changes in methods of product candidate manufacturing or formulation may result in additional costs or delay.

As product candidates proceed through preclinical studies to late-stage clinical trials towards potential approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods and formulation, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives. Any of these changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials conducted with the materials manufactured using altered processes. Such changes may also require additional testing, FDA notification or FDA approval. This could delay or prevent completion of clinical trials, require conducting bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay or prevent approval of our product candidates and jeopardize our ability to commence sales and generate revenue.

Our product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following regulatory approval, if obtained.

Undesirable side effects caused by any of our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. In our planned and future clinical trials of our product candidates, we may observe a more unfavorable safety and tolerability profile than was observed in earlier-stage testing of these candidates.

Undesirable side effects have been observed in our product candidates to date. For example, in clinical trials of tavapadon, a dose-dependent increase in the frequency of nausea and headache was observed, with nausea, vomiting, dyskinesia, fall, fatigue, sleep disorder and tremors being the most common adverse events leading to discontinuation of tavapadon. In clinical trials of CVL-231, some moderate treatment-emergent increases in heart rate and blood pressure were observed following single doses of CVL-231 (>10 mg), which may be due to CVL-231's activity on the M4 receptor subtype and its subsequent reduction of striatal dopamine levels. We may also observe additional safety or tolerability issues with our product candidates in ongoing or future clinical trials. Many compounds that initially showed promise in clinical or earlier-stage testing are later found to cause undesirable or unexpected side effects that prevented further development of the compound. Results of future clinical trials of our product candidates could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics, despite a favorable tolerability profile observed in earlier-stage testing.

If unacceptable side effects arise in the development of our product candidates, we, the FDA or comparable foreign regulatory authorities, the IRBs, or independent ethics committees at the institutions in which our trials are conducted, could suspend, limit or terminate our clinical trials, or the independent safety monitoring committee could recommend that we suspend, limit or terminate our trials, or the FDA or comparable foreign regulatory authorities could order us to cease clinical trials or deny approval of our product candidates for any or all targeted indications. Treatment-emergent side effects that are deemed to be drug-related could delay recruitment of clinical trial subjects or may cause subjects that enroll in our clinical trials to discontinue participation in our clinical trials. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. We may need to train medical personnel using our product candidates to understand the side effect profiles for our clinical trials and upon any commercialization of any of our product candidates. Inadequate training in recognizing or managing the potential side effects of our product candidates could result in harm to patients that are administered our product candidates. Any of these occurrences may adversely affect our business, financial condition and prospects significantly.

Moreover, clinical trials of our product candidates are conducted in carefully defined sets of patients who have agreed to enter into clinical trials. Consequently, it is possible that our clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any, or alternatively fail to identify undesirable side effects.

We have concentrated our research and development efforts on the treatment of disorders of the brain and nervous system, a field that faces certain challenges in drug development.

We have focused our research and development efforts on addressing disorders of the brain and nervous system. Efforts by pharmaceutical companies in this field have faced certain challenges in drug development. In particular, many neuroscience diseases such as anxiety, schizophrenia or dementia-related apathy rely on subjective patient-reported outcomes as key endpoints. This makes them more difficult to evaluate than indications with more objective endpoints. Furthermore, these indications are often subject to a placebo effect, which may make it more challenging to isolate the beneficial effects of our product candidates. There can be no guarantee that we will successfully overcome these challenges with our product candidates or that we will not encounter other challenges in the development of our product candidates.

Even if any of our product candidates receives regulatory approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success, in which case we may not generate significant revenues or become profitable.

We have never commercialized a product, and even if any of our product candidates is approved by the appropriate regulatory authorities for marketing and sale, it may nonetheless fail to achieve sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. Many of the indications for our product candidates have well-established standards of care that physicians, patients and payors are familiar with and, in some cases, are available generically. Even if our product candidates are successful in registrational clinical trials, they may not be successful in displacing these current standards of care if we are unable to demonstrate superior efficacy, safety, ease of administration and/or cost-effectiveness. For example, physicians may be reluctant to take their patients off their current medications and switch their treatment regimen to our product candidates. Further, patients often acclimate to the treatment regimen that they are currently taking and do not want to switch unless their physicians recommend switching products or they are required to switch due to lack of coverage and adequate reimbursement. Even if we are able to demonstrate our product candidates' safety and efficacy to the FDA and other regulators, safety or efficacy concerns in the medical community may hinder market acceptance.

Efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources, including management time and financial resources, and may not be successful. For example, even if tavapadon ultimately receives regulatory approval, we may have difficulty in convincing the medical community that tavapadon's selective dopamine D1/D5 partial agonism has the potential to deliver promising therapeutic benefits. If any product candidate is approved but does not achieve an adequate level of market acceptance, we may not generate significant revenues and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and safety of the product;
- the potential advantages of the product compared to competitive therapies;
- the prevalence and severity of any side effects;
- whether the product is designated under physician treatment guidelines as a first-, second- or third-line therapy;
- our ability, or the ability of any future collaborators, to offer the product for sale at competitive prices;
- the product's convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try, and of physicians to prescribe, the product;
- limitations or warnings, including distribution or use restrictions contained in the product's approved labeling;
- the strength of sales, marketing and distribution support;
- changes in the standard of care for the targeted indications for the product; and
- availability and adequacy of coverage and reimbursement from government payors, managed care plans and other third-party payors.

Any failure by one or more of our product candidates that obtains regulatory approval to achieve market acceptance or commercial success would adversely affect our business prospects.

If we fail to discover, develop and commercialize other product candidates, we may be unable to grow our business and our ability to achieve our strategic objectives would be impaired.

Although the development and commercialization of our current product candidates are our initial focus, as part of our longer-term growth strategy, we plan to develop other product candidates. In addition to the product candidates in our clinical-stage pipeline, we have in-licensed additional assets that are in earlier stages of development. We intend to evaluate internal opportunities from our existing product candidates or other potential product candidates, and also may choose to in-license or acquire other product candidates to treat patients suffering from other disorders with significant unmet medical needs and limited treatment options. These other potential product candidates will require additional, time-consuming development efforts prior to commercial sale, including preclinical studies, clinical trials and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to the risks of failure that are inherent in pharmaceutical product development, including the possibility that the product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. In addition, we cannot assure you that any such products that are approved will be manufactured or produced economically, successfully commercialized or widely accepted in the marketplace or be more effective than other commercially available alternatives.

In addition, we intend to devote substantial capital and resources for basic research to discover and identify additional product candidates. These research programs require substantial technical, financial and human resources, whether or not any product candidates are ultimately identified. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development for many reasons, including the following:

- the research methodology used may not be successful in identifying potential product candidates;
- competitors may develop alternatives that render our product candidates obsolete;
- product candidates that we develop may nevertheless be covered by third parties' patents or other exclusive rights;
- a product candidate may, on further study, be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a product candidate may not be accepted as safe and effective by patients, the medical community or third-party payors.

In the future, we may also seek to in-license or acquire product candidates or the underlying technology. The process of proposing, negotiating and implementing a license or acquisition is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates. We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses and technologies and integrate them into our current infrastructure. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. We may not be able to acquire the rights to additional product candidates on terms that we find acceptable, or at all.

In addition, future acquisitions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- disruption of our business and diversion of management's time and attention to develop acquired products or technologies;
- incurrence of substantial debt, dilutive issuances of securities or depletion of cash to pay for acquisitions;
- higher than expected acquisition and integration costs;

- difficulty in combining the operations and personnel of any acquired businesses with our operations and personnel;
- increased amortization expenses;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership; and
- inability to motivate key employees of any acquired businesses.

If we are unsuccessful in identifying and developing additional product candidates, either through internal development or licensing or acquisition from third parties, our potential for growth and achieving our strategic objectives may be impaired.

The number of patients with the diseases and disorders for which we are developing our product candidates has not been established with precision. If the actual number of patients with the diseases or disorders we elect to pursue with our product candidates is smaller than we anticipate, we may have difficulties in enrolling patients in our clinical trials, which may delay or prevent development of our product candidates. Even if such product candidates are successfully developed and approved, the markets for our products may be smaller than we expect and our revenue potential and ability to achieve profitability may be materially adversely affected.

Our pipeline includes product candidates for a variety of neuroscience diseases. There is no precise method of establishing the actual number of patients with any of these disorders in any geography over any time period. With respect to many of the indications in which we have developed, are developing, or plan to develop our product candidates, we have estimates of the prevalence of the disease or disorder. Our estimates as to prevalence may not be accurate, and the actual prevalence or addressable patient population for some or all of those indications, or any other indication that we elect to pursue, may be significantly smaller than our estimates. In estimating the potential prevalence of indications we are pursuing, or may in the future pursue, including our estimates as to the prevalence of Parkinson's, epilepsy and schizophrenia, we apply assumptions to available information that may not prove to be accurate. In each case, there is a range of estimates in the published literature and in marketing studies which include estimates within the range that are lower than our estimates. The actual number of patients with these disease indications may, however, be significantly lower than we believe. Even if our prevalence estimates are correct, our product candidates may be developed for only a subset of patients with the relevant disease or disorder or our products, if approved, may be indicated for or used by only a subset. Moreover, certain of our product candidates are being developed for indications that are novel. In the event the number of patients with the diseases and disorders we are studying is significantly lower than we expect, we may have difficulties in enrolling patients in our clinical trials, which may delay or prevent development of our product candidates. If any of our product candidates are approved and our prevalence estimates with respect to any indication or our other market assumptions are not accurate, the markets for our product candidates for these indications may be smaller than we anticipate, which could limit our revenues and our ability to achieve profitability or to meet our expectations with respect to revenues or profits.

Competitive products may reduce or eliminate the commercial opportunity for our product candidates, if approved. If our competitors develop technologies or product candidates more rapidly than we do, or their technologies or product candidates are more effective or safer than ours, our ability to develop and successfully commercialize our product candidates may be adversely affected.

The clinical and commercial landscapes for the treatment of neuroscience diseases are highly competitive and subject to rapid and significant technological change. We face competition with respect to our indications for our product candidates and will face competition with respect to any other drug candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell drugs or are pursuing the development of drug candidates for the treatment of the indications that we are pursuing. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

We believe that a significant number of product candidates are currently under development for the same indications we are currently pursuing, and some or all may become commercially available in the future for the treatment of conditions for which we are trying or may try to develop product candidates. Our potential competitors include large pharmaceutical and biotechnology companies, specialty pharmaceutical and generic drug companies, academic institutions, government agencies and research institutions. See the section entitled “*Business—Competition*” for examples of the competition that our product candidates face.

In most cases, we do not currently plan to run head-to-head clinical trials evaluating our product candidates against the current standards of care, which may make it more challenging for our product candidates to compete against the current standards of care due to the lack of head-to-head clinical trial data.

Our competitors may have significantly greater financial resources, established presence in the market, expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products than we do. Accordingly, our competitors may be more successful than we may be in obtaining regulatory approval for therapies and achieving widespread market acceptance. Our competitors’ products may be more effective, or more effectively marketed and sold, than any product candidate we may commercialize and may render our therapies obsolete or non-competitive before we can recover development and commercialization expenses. If any of our product candidates, including tavapadon, is approved, it could compete with a range of therapeutic treatments that are in development. In addition, our competitors may succeed in developing, acquiring or licensing technologies and drug products that are more effective or less costly than tavapadon, our other product candidates or any other product candidates that we may develop, which could render our product candidates obsolete and noncompetitive.

If we obtain approval for any of our product candidates, we may face competition based on many different factors, including the efficacy, safety and tolerability of our products, the ease with which our products can be administered, the timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Existing and future competing products could present superior treatment alternatives, including being more effective, safer, less expensive or marketed and sold more effectively than any products we may develop. Competitive products may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our product candidates. Such competitors could also recruit our employees, which could negatively impact our level of expertise and our ability to execute our business plan.

In addition, our competitors may obtain patent protection, regulatory exclusivities or FDA approval and commercialize products more rapidly than we do, which may impact future approvals or sales of any of our product candidates that receive regulatory approval. If the FDA approves the commercial sale of tavapadon or any other product candidate, we will also be competing with respect to marketing capabilities and manufacturing efficiency. We expect competition among products will be based on product efficacy and safety, the timing and scope of regulatory approvals, availability of supply, marketing and sales capabilities, product price, reimbursement coverage by government and private third-party payors, regulatory exclusivities and patent position. Our profitability and financial position will suffer if our product candidates receive regulatory approval but cannot compete effectively in the marketplace.

Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are unable to develop our sales, marketing and distribution capability on our own or through collaborations with marketing partners, we will not be successful in commercializing our product candidates.

We currently have no marketing, sales or distribution capabilities. We intend to establish a sales and marketing organization, either on our own or in collaboration with third parties, with technical expertise and supporting distribution capabilities to commercialize tavapadon or one or more of our other product candidates that may receive regulatory approval in key territories. These efforts will require substantial additional resources, some or all of which may be incurred in advance of any approval of the product candidate. Any failure or delay in the development of our or third parties' internal sales, marketing and distribution capabilities would adversely impact the commercialization of tavapadon, our other product candidates and other future product candidates.

Factors that may inhibit our efforts to commercialize our product candidates on our own include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- our inability of sales personnel to obtain access to or persuade adequate numbers of physicians to prescribe any future products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

With respect to our existing and future product candidates, we may choose to collaborate with third parties that have direct sales forces and established distribution systems to serve as an alternative to our own sales force and distribution systems. Our future product revenue may be lower than if we directly marketed or sold our product candidates, if approved. In addition, any revenue we receive will depend in whole or in part upon the efforts of these third parties, which may not be successful and are generally not within our control. If we are not successful in commercializing any approved products, our future product revenue will suffer and we may incur significant additional losses.

If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

Product liability lawsuits against us or any of our future collaborators could divert our resources and attention, cause us to incur substantial liabilities and limit commercialization of our product candidates.

We are exposed to potential product liability and professional indemnity risks that are inherent in the research, development, manufacturing, marketing and use of pharmaceutical products. Currently, we have no products that have been approved for commercial sale; however, the use of our product candidates by us and any collaborators in clinical trials, and the sale of these product candidates, if approved, in the future, may expose us to liability claims. We face an inherent risk of product liability lawsuits related to the use of our product candidates in patients and will face an even greater risk if product candidates are approved by regulatory authorities and introduced commercially. Product liability claims may be brought against us by participants enrolled in our clinical trials, patients, health care providers, pharmaceutical companies, our collaborators or others using, administering or selling any of our future approved products. If we cannot successfully defend ourselves against any such claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for any of our future approved products;
- injury to our reputation;
- withdrawal of clinical trial participants;
- termination of clinical trial sites or entire trial programs;
- significant litigation costs;
- substantial monetary awards to, or costly settlements with, patients or other claimants;

- product recalls or a change in the indications for which they may be used;
- loss of revenue;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize our product candidates.

Although the clinical trial process is designed to identify and assess potential side effects, clinical development does not always fully characterize the safety and efficacy profile of a new medicine, and it is always possible that a drug, even after regulatory approval, may exhibit unforeseen side effects. If our product candidates were to cause adverse side effects during clinical trials or after approval, we may be exposed to substantial liabilities. Physicians and patients may not comply with any warnings that identify known potential adverse effects and patients who should not use our product candidates. If any of our product candidates are approved for commercial sale, we will be highly dependent upon consumer perceptions of us and the safety and quality of our products. We could be adversely affected if we are subject to negative publicity associated with illness or other adverse effects resulting from patients' use or misuse of our products or any similar products distributed by other companies.

Although we maintain product liability insurance coverage consistent with industry norms, including clinical trial liability, this insurance may not fully cover potential liabilities that we may incur. The cost of any product liability litigation or other proceeding, even if resolved in our favor, could be substantial. We will need to increase our insurance coverage if we commercialize any product that receives regulatory approval. In addition, insurance coverage is becoming increasingly expensive. If we are unable to maintain sufficient insurance coverage at an acceptable cost or to otherwise protect against potential product liability claims, it could prevent or inhibit the development and commercial production and sale of our product candidates, which could harm our business, financial condition, results of operations and prospects.

Cyber-attacks or other failures in our telecommunications or information technology systems, or those of our collaborators, CROs, third-party logistics providers, distributors or other contractors or consultants, could result in information theft, data corruption and significant disruption of our business operations.

We, along with our collaborators, CROs, third-party logistics providers, distributors and other contractors and consultants, utilize information technology, or IT, systems and networks to process, transmit and store electronic information in connection with our business activities. As use of digital technologies has increased, cyber incidents, including third parties gaining access to employee accounts using stolen or inferred credentials, computer malware, viruses, spamming, phishing attacks or other means, and deliberate attacks and attempts to gain unauthorized access to computer systems and networks, have increased in frequency and sophistication. These threats pose a risk to the security of our, our collaborators', CROs', third-party logistics providers', distributors' and other contractors' and consultants' systems and networks, and the confidentiality, availability and integrity of our data. There can be no assurance that we will be successful in preventing cyber-attacks or successfully mitigating their effects. Similarly, there can be no assurance that our collaborators, CROs, third-party logistics providers, distributors and other contractors and consultants will be successful in protecting our clinical and other data that is stored on their systems. Like other companies, we have on occasion experienced, and will continue to experience, threats to our data and systems, including malicious codes and viruses, phishing, business email compromise attacks or other cyber-attacks. For example, in the first quarter of 2020, we discovered a business email compromise caused by phishing, which led to the misappropriation of a portion of our funds in late 2019. Even though we have implemented remedial measures promptly following this incident and do not believe that it had a material adverse effect on our business, we cannot guarantee that our implemented remedial measures will prevent additional related, as well as unrelated, incidents. Any cyber-attack, data breach or destruction or loss of data could result in a violation of applicable U.S. and international privacy, data protection and other laws and subject us to litigation and governmental investigations and proceedings by federal, state and local regulatory entities in the United States and by international regulatory entities, resulting in exposure to material civil and/or criminal liability. Further, our general liability insurance and corporate risk program may not cover all potential claims to which we are exposed and may not be adequate to indemnify us for all liability that may be imposed, which could have a material adverse effect on our business and prospects. For example, the loss of clinical trial data from completed or ongoing clinical trials for any of our product candidates could result in delays in our development and regulatory approval efforts and significantly increase our costs to recover or reproduce the data. In addition, we may suffer reputational harm or face litigation or adverse regulatory action as a result of cyber-attacks or other data security breaches and may incur significant additional expense to implement further data protection measures.

Our ability to use our net operating losses and research and development tax credits to offset future taxable income may be subject to certain limitations.

As of December 31, 2020, we had U.S. federal net operating loss carryforwards totaling \$213.9 million, all of which have an indefinite carryforward period. As of December 31, 2020, we had state net operating loss carryforwards totaling \$206.2 million which begin to expire in 2038 and 2040. As of December 31, 2020, we also had U.S. federal and state research and development tax credit carryforwards of \$5.7 million and \$0.7 million, respectively, which expire at various dates through 2040 for federal purposes and 2035 for state purposes. The net operating losses which are limited in life and tax credit carryforwards could expire unused and be unavailable to offset future income tax liabilities. In addition, in general, under Sections 382 and 383 of the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating losses or tax credits, or NOLs or credits, to offset future taxable income or taxes. For these purposes, an ownership change generally occurs where the aggregate stock ownership of one or more stockholders or groups of stockholders who own at least 5% of a corporation’s stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a specified testing period. Our existing NOLs or credits may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with, or we undergo an ownership change following, the transactions contemplated hereby, our ability to utilize NOLs or credits could be further limited by Sections 382 and 383 of the Code. In addition, future changes in our stock ownership, many of which are outside of our control, could result in an ownership change under Sections 382 and 383 of the Code. Our NOLs or credits may also be impaired under state law. Accordingly, we may not be able to utilize a material portion of our NOLs or credits. If we determine that an ownership change has occurred and our ability to use our historical NOLs or credits is materially limited, it would harm our future operating results by effectively increasing our future tax obligations. Section 382 and 383 of the Code would apply to all net operating loss and tax credit carryforwards, whether the carryforward period is indefinite or not.

Furthermore, our ability to utilize our historical NOLs or credits is conditioned upon us attaining profitability and generating U.S. federal and state taxable income. We are a clinical-stage biopharmaceutical company with a limited operating history. We have incurred significant net losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future; and therefore, we do not know whether or when we will generate the U.S. federal or state taxable income necessary to utilize our historical NOLs or credits that are subject to limitation by Sections 382 and 383 of the Code.

Changes in tax law could adversely affect our business and financial condition.

The rules dealing with U.S. federal, state, and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application), including with respect to net operating losses and research and development tax credits, could adversely affect us or holders of our common stock. In recent years, many such changes have been made and changes are likely to continue to occur in the future. Future changes in tax laws could have a material adverse effect on our business, cash flow, financial condition or results of operations. We urge investors to consult with their legal and tax advisers regarding the implications of potential changes in tax laws on an investment in our common stock.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, stockholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. In addition, any testing we conduct in connection with Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, or any subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

For instance, in connection with the audit of our consolidated financial statements for the year ended December 31, 2019, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting related to our cash disbursement process. Specifically, our cash disbursement process was not adequately designed to identify unauthorized payment requests. In the first quarter of 2020, we discovered a business email compromise caused by phishing, which led to the misappropriation of a portion of our funds in late 2019. We do not believe that this breach had a material adverse effect on our business, but a deficiency in our internal controls resulted in the inability to prevent and timely detect the unauthorized disbursement requests. We have implemented measures designed to improve our internal control over financial reporting to remediate this material weakness, including continuing to evaluate cybersecurity risks, developing a priority list of critical information systems and designing and implementing control activities such as implementing additional security policies and processes, hiring and training additional personnel, strengthening supervisory reviews and further enhancing our processes and internal control documentation, and believe we have successfully remediated this material weakness as of December 31, 2020.

If we identify any future material weaknesses, the accuracy and timing of our financial reporting may be adversely affected, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports or applicable stock exchange listing requirements, investors may lose confidence in our financial reporting and our stock price may decline as a result. We also could become subject to investigations by Nasdaq, the SEC or other regulatory authorities. We will be required to disclose changes made in our internal controls and procedures on a quarterly basis and our management will be required to assess the effectiveness of these controls annually. However, for as long as we are an “emerging growth company” under the Jumpstart Our Business Startups Act, or the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404. An independent assessment of the effectiveness of our internal controls over financial reporting could detect problems that our management’s assessment might not. Undetected material weaknesses in our internal controls over financial reporting could lead to financial statement restatements and require us to incur the expense of remediation.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Upon completion of this transaction, we will become subject to certain reporting requirements of the Exchange Act. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act is accumulated and communicated to management, recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements or insufficient disclosures due to error or fraud may occur and not be detected.

Risks Related to Managing our Business and Operations

We are incurring, and will continue to incur, significant increased expenses and administrative burdens as a public company, which could have an adverse effect on our business, financial condition and results of operations.

As a public company, we are facing, and will continue to face, increased legal, accounting, administrative and other costs and expenses as a public company that we did not incur as a private company. The Sarbanes-Oxley Act, including the requirements of Section 404, as well as rules and regulations subsequently implemented by the SEC, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the rules and regulations promulgated and to be promulgated thereunder, the Public Company Accounting Oversight Board and the securities exchanges, impose additional reporting and other obligations on public companies. Compliance with public company requirements will increase costs and make certain activities more time-consuming. A number of those requirements mandate us to carry out activities we have not done previously. In addition, additional expenses

associated with SEC reporting requirements are being incurred. Furthermore, if any issues in complying with those requirements are identified (for example, if our auditors identify a material weakness or significant deficiency in the internal control over financial reporting), we could incur additional costs rectifying those issues, and the existence of those issues could adversely affect our reputation or investor perceptions of it. It will also be more expensive to obtain director and officer liability insurance as a public company. Risks associated with our status as a public company may make it more difficult to attract and retain qualified persons to serve on the board of directors or as executive officers. The additional reporting and other obligations imposed by these rules and regulations will increase legal and financial compliance costs and the costs of related legal, accounting and administrative activities. These increased costs will require us to divert a significant amount of money that could otherwise be used to expand the business and achieve strategic objectives. Advocacy efforts by stockholders and third parties may also prompt additional changes in governance and reporting requirements, which could further increase costs.

We qualify as an emerging growth company within the meaning of the Securities Act, and if we take advantage of certain exemptions from disclosure requirements available to emerging growth companies, it could make our securities less attractive to investors and may make it more difficult to compare our performance to the performance of other public companies.

We qualify as an “emerging growth company” as defined in Section 2(a)(19) of the Securities Act, as modified by the JOBS Act. As such, we are eligible for and intend to take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies for as long as we continue to be an emerging growth company, including (i) the exemption from the auditor attestation requirements with respect to internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act, (ii) the exemptions from say-on-pay, say-on-frequency and say-on-golden parachute voting requirements and (iii) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year (a) in which we are deemed to be a “large accelerated filer” under the Exchange Act, (b) in which we have total annual gross revenue of at least \$1.07 billion, or (c) following the fifth anniversary of the closing of ARYA’s initial public offering; or (ii) the date on which we have issued more than \$1 billion in non-convertible debt in the prior three-year period. In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the exemption from complying with new or revised accounting standards provided in Section 7(a)(2)(B) of the Securities Act as long as we are an emerging growth company. We have elected to take advantage of this exemption and will therefore, for so long as we are an emerging growth company, delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. Therefore, we may not be subject to the same new or revised accounting standards as other public companies. Investors may find our common stock less attractive because we will rely on these exemptions, which may result in a less active trading market for our common stock and our stock price may be more volatile.

We depend heavily on our executive officers, third-party consultants and others and our ability to compete in the biotechnology and pharmaceutical industries depends upon our ability to attract and retain highly qualified managerial, scientific and medical personnel. The loss of their services or our inability to hire and retain such personnel would materially harm our business.

Our success depends, and will likely continue to depend, upon our ability to hire, and our ability to retain the services of our current executive officers, principal consultants and others, including N. Anthony Coles, M.D., our President and Chief Executive Officer, Mark Bodenrader, our Chief Accounting Officer, Ken DiPietro, our Chief Human Resources Officer, John Renger, Ph.D., our Chief Scientific Officer, Raymond Sanchez, M.D., our Chief Medical Officer, Kathleen Tregoning, our Chief Corporate Affairs Officer, and Kathy Yi, our Chief Financial Officer. Our executive officers may terminate their employment with us at any time. The loss of their services might impede the achievement of our research and development objectives.

Our ability to compete in the biotechnology and pharmaceutical industries depends upon our ability to attract and retain highly qualified managerial, scientific and medical personnel. In particular, we will need to retain and, in some cases, hire, qualified personnel with expertise in clinical development and operations, preclinical research and development, manufacturing, quality management, medical and regulatory affairs, finance and accounting and other areas in connection with the continued development of our product candidates. We currently rely, and for the foreseeable future will continue to rely, on third-party consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development objectives and activities as well as the development of our commercialization strategies.

Our industry has experienced a high rate of turnover of management personnel in recent years. Replacing executive officers or other key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, gain regulatory approval of and commercialize products successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these additional key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions.

There can be no assurance that the services of third-party consultants and advisors will continue to be available to us on a timely basis when needed, that we will be able to manage our existing consultants and advisors or that we can find qualified replacements on economically reasonable terms, or at all. Our consultants and advisors may be employed by other entities and may have commitments under consulting or advisory contracts with those entities that may limit their availability to us. If we are unable to continue to attract and retain highly qualified consultants and advisors, our ability to develop and commercialize our product candidates will be limited.

We only have a limited number of employees to manage and operate our business.

As of December 31, 2020, we had 104 full-time employees. Our focus on the development of multiple initial product candidates requires us to optimize cash utilization and to manage and operate our business in a highly efficient manner. We cannot assure you that we will be able to hire and/or retain adequate staffing levels to develop our product candidates or run our operations and/or to accomplish all of the objectives that we otherwise would seek to accomplish. If we are not able to effectively expand our organization by hiring new employees, our clinical trials may be delayed or terminated, we may not be able to successfully execute the tasks necessary to further develop and commercialize our product candidates and, accordingly, may not achieve our development and commercialization goals.

Our employees, independent contractors, consultants, collaborators and CROs may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, which could cause significant liability for us and harm our reputation.

We are exposed to the risk that our employees, independent contractors, consultants, collaborators and CROs may engage in fraudulent conduct or other illegal activity. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. Misconduct by those parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violates:

- FDA regulations or similar regulations of comparable non-U.S. regulatory authorities, including those laws requiring the reporting of true, complete and accurate information to such authorities;
- manufacturing standards;
- federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable non-U.S. regulatory authorities; and
- laws that require the reporting of financial information or data accurately.

In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws could also involve the improper use of information obtained in the course of clinical trials or creating fraudulent data in our preclinical studies or clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, creating fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of product materials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent this

activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws, standards or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, disgorgement, integrity oversight and reporting obligations, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could have a material adverse effect on our ability to operate our business and our results of operations.

We expect to expand our organization, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations. To manage these growth activities, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Our management may need to devote a significant amount of their attention to managing these growth activities. For instance, the transition to and build-out of our new headquarters may divert our management's time and attention. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion or relocation of our operations, retain key employees, or identify, recruit and train additional qualified personnel. Our inability to manage the expansion or relocation of our operations effectively may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could also require significant capital expenditures and may divert financial resources from other projects, such as the development of additional product candidates. If we are unable to effectively manage our expected growth, our expenses may increase more than expected, our ability to generate revenues could be reduced and we may not be able to implement our business strategy, including the successful commercialization of our product candidates.

Risks Related to Our Organizational Structure

Bain Investor and Pfizer have significant influence over us.

As of March 15, 2021, Bain Investor and Pfizer own, collectively, approximately 69.1% of the outstanding shares of our common stock. Furthermore, as discussed in the section entitled "*Certain Relationships and Related Person Transactions, and Director Independence*," so long as they own certain specified amounts of our equity securities, Bain Investor and Pfizer have certain rights to nominate our directors. As long as such persons each own or control a significant percentage of outstanding voting power, they will have the ability to strongly influence all corporate actions requiring stockholder approval, including the election and removal of directors and the size of our board of directors, any amendment of our certificate of incorporation or bylaws, or the approval of any merger or other significant corporate transaction, including a sale of substantially all of our assets. Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at other shareholders have purchased share or have held their shares for a longer period, they may be more interested in selling the company to an acquirer than other investors or they may want us to pursue strategies that deviate from the interests of other stockholders.

As a “controlled company” within the meaning of Nasdaq listing standards, we qualify for exemptions from certain corporate governance requirements. We have the opportunity to elect any of the exemptions afforded a controlled company.

Because Bain Investor and Pfizer, together, control more than a majority of the total voting power of our common stock, we are a “controlled company” within the meaning of Nasdaq listing standards. Under Nasdaq rules, a company of which more than 50% of the voting power is held by another person or group of persons acting together is a “controlled company” and may elect not to comply with the following Nasdaq rules regarding corporate governance:

- the requirement that a majority of our board of directors consist of independent directors;
- the requirement to have a nominating/corporate governance committee composed entirely of independent directors and a written charter addressing the committee’s purpose and responsibilities;
- the requirement to have a compensation committee composed entirely of independent directors and a written charter addressing the committee’s purpose and responsibilities; and
- the requirement of an annual performance evaluation of the nominating/corporate governance and compensation committees.

Currently, ten (10) of our eleven (11) directors are independent directors, and we have an independent nominating and corporate governance committee and an independent compensation committee. However, for as long as the “controlled company” exemption is available, our board of directors in the future may not consist of a majority of independent directors and may not have an independent nominating and corporate governance committee or compensation committee. As a result, you may not have the same protections afforded to stockholders of companies that are subject to all of the Nasdaq rules regarding corporate governance.

The Registration and Shareholder Rights Agreement provides that the doctrine of corporate opportunity does not apply with respect to certain of our stockholders, directors, non-voting observers or certain of their affiliates who are not our or our subsidiaries’ full-time employees.

The doctrine of corporate opportunity generally provides that a corporate fiduciary may not develop an opportunity using corporate resources or information obtained in their corporate capacity for their personal advantage, acquire an interest adverse to that of the corporation or acquire property that is reasonably incident to the present or prospective business of the corporation or in which the corporation has a present or expectancy interest, unless that opportunity is first presented to the corporation and the corporation chooses not to pursue that opportunity. The doctrine of corporate opportunity is intended to preclude officers, directors or other fiduciaries from personally benefiting from opportunities that belong to the corporation.

Pursuant to the Amended and Restated Registration and Shareholder Rights Agreement, dated October 27, 2020, by and between us and the other parties thereto, or the Registration and Shareholder Rights Agreement, to the fullest extent permitted by law, the doctrine of corporate opportunity and any analogous doctrine does not apply to (i) Bain Investor, Pfizer and the Perceptive Shareholders, (ii) any member of our board of directors, non-voting observer or any officer who is not our or our subsidiaries’ full-time employee or (iii) any affiliate, partner, advisory board member, director, officer, manager, member or shareholder of Bain Investor, Pfizer or the Perceptive Shareholders who is not our or our subsidiaries’ full-time employee (any such person listed in (i), (ii) or (iii) being referred to herein as an External Party). Therefore, we renounced any interest or expectancy in, or being offered an opportunity to participate in, business opportunities that are from time to time presented to any External Party.

As a result, the External Parties are not prohibited from operating or investing in competing businesses. We therefore may find ourselves in competition with the External Parties, and we may not have knowledge of, or be able to pursue, transactions that could potentially be beneficial to us. Accordingly, we may lose a corporate opportunity or suffer competitive harm, which could negatively impact our business or prospects.

Our warrant agreement designates the courts of the State of New York or the United States District Court for the Southern District of New York as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by holders of our warrants, which could limit the ability of warrant holders to obtain a favorable judicial forum for disputes with our company.

Our warrant agreement provides that, subject to applicable law, (i) any action, proceeding or claim against us arising out of or relating in any way to the warrant agreement, including under the Securities Act, will be brought and enforced in the courts of the State of New York or the United States District Court for the Southern District of New York, and (ii) that we irrevocably submit to such jurisdiction, which jurisdiction will be the exclusive forum for any such action, proceeding or claim. We will waive any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum.

Notwithstanding the foregoing, these provisions of the warrant agreement do not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal district courts of the United States of America are the sole and exclusive forum. Any person or entity purchasing or otherwise acquiring any interest in any of our warrants will be deemed to have notice of and to have consented to the forum provisions in our warrant agreement.

If any action, the subject matter of which is within the scope of the forum provisions of the warrant agreement, is filed in a court other than a court of the State of New York or the United States District Court for the Southern District of New York, or a foreign action, in the name of any holder of our warrants, such holder will be deemed to have consented to: (x) the personal jurisdiction of the state and federal courts located in the State of New York in connection with any action brought in any such court to enforce the forum provisions, or an enforcement action, and (y) having service of process made upon such warrant holder in any such enforcement action by service upon such warrant holder's counsel in the foreign action as agent for such warrant holder.

This choice-of-forum provision may limit a warrant holder's ability to bring a claim in a judicial forum that it finds favorable for disputes with our company, which may discourage such lawsuits. Alternatively, if a court were to find this provision of our warrant agreement inapplicable or unenforceable with respect to one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could materially and adversely affect our business, financial condition and results of operations and result in a diversion of the time and resources of our management and board of directors.

Delaware law and our Governing Documents contain certain provisions, including anti-takeover provisions, that limit the ability of stockholders to take certain actions and could delay or discourage takeover attempts that stockholders may consider favorable.

The Governing Documents and the Delaware General Corporation Law, or DGCL, contain provisions that could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors or depress the trading price of shares of our common stock. These provisions could also make it difficult for stockholders to take certain actions, including electing directors who are not nominated by the current members of our board of directors or taking other corporate actions, including effecting changes in our management. Among other things, the Governing Documents include provisions regarding:

- the ability of our board of directors to issue shares of preferred stock, including "blank check" preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- the limitation of the liability of, and the indemnification of, our directors and officers;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of stockholders after such date and could delay the ability of stockholders to force consideration of a stockholder proposal or to take action, including the removal of directors;
- the requirement that a special meeting of stockholders may be called only by a majority of our board of directors, which could delay the ability of stockholders to force consideration of a proposal or to take action, including the removal of directors;

- controlling the procedures for the conduct and scheduling of our board of directors and stockholder meetings;
- the ability of our board of directors to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend the bylaws to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which could preclude stockholders from bringing matters before annual or special meetings of stockholders and delay changes in our board of directors, and also may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our board of directors.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our board of directors or management.

In addition, the Certificate of Incorporation includes a provision substantially similar to Section 203 of the DGCL, which may prohibit certain stockholders holding 15% or more of our outstanding capital stock from engaging in certain business combinations with us for a specified period of time.

Our Bylaws designate specific courts as the sole and exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, stockholders, employees or agents.

Our Bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for state law claims for (i) any derivative action or proceeding brought on behalf of us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or the Certificate of Incorporation or Bylaws, (iv) any action to interpret, apply, enforce or determine the validity of the Certificate of Incorporation or Bylaws or (v) any action asserting a claim against us governed by the internal affairs doctrine; provided, however, that the forgoing provisions will not apply to any claims arising under the Exchange Act or the Securities Act. Our Bylaws further provide that, unless we consent in writing to the selection of an alternative forum, the United States District Court for the District of Massachusetts will be the sole and exclusive forum for resolving any action asserting a claim arising under the Securities Act. In addition, our Bylaws provide that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to these forum provisions; provided, however, that stockholders cannot and will not be deemed to have waived our compliance with the U.S. federal securities laws and the rules and regulations thereunder.

This choice of forum provisions in our Bylaws may impose additional litigation costs on stockholders in pursuing such claims and may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims. In addition, while the Delaware Supreme Court ruled in March 2020 that federal forum selection provisions purporting to require claims under the Securities Act be brought in federal court are "facially valid" under Delaware law, there is uncertainty as to whether other courts will enforce our federal provision. If our forum provisions are found to be unenforceable, we and our stockholders may incur additional costs associated with resolving such matters. The Court of Chancery of the State of Delaware and the U.S. District Court for the District of Massachusetts may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders.

Risks Related to Our Dependence on Third Parties

We rely on third parties to assist in conducting our clinical trials. If they do not perform satisfactorily, we may not be able to obtain regulatory approval or commercialize our product candidates, or such approval or commercialization may be delayed, and our business could be substantially harmed.

We have relied upon and plan to continue to rely on third parties, such as CROs, clinical data management organizations, medical institutions and clinical investigators, to conduct our clinical trials and expect to rely on these third parties to conduct clinical trials of any other product candidate that we develop. Our ability to complete clinical trials in a timely fashion depends on a number of key factors. These factors include protocol design, regulatory and IRB approval, patient enrollment rates and compliance with GCPs. We have opened clinical trial sites and are enrolling patients in a number of countries where our experience is limited. In most cases, we use the services of third parties, including CROs, to carry out our clinical trial-related activities and rely on such parties to accurately report their results. Our reliance on third parties for clinical development activities may impact or limit our control over the timing, conduct, expense and quality of our clinical trials. Moreover, the FDA requires us to comply with GCPs for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. The FDA enforces these GCPs through periodic inspections of trial sponsors, principal investigators, clinical trial sites and IRBs.

We remain responsible for ensuring that each of our trials is conducted in accordance with the applicable protocol, legal and regulatory requirements and scientific standards. The failure of third parties to comply with the applicable protocol, legal and regulatory requirements and scientific standards can result in rejection of our clinical trial data or other sanctions. If we or our third-party clinical trial providers or third-party CROs do not successfully carry out these clinical activities, our clinical trials or the potential regulatory approval of a product candidate may be delayed or be unsuccessful. Additionally, if we or our third-party contractors fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA may require us to perform additional clinical trials before approving our product candidates, which would delay the regulatory approval process. We cannot be certain that, upon inspection, the FDA will determine that any of our clinical trials comply with GCPs. We are also required to register certain clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Furthermore, the third parties conducting clinical trials on our behalf are not our employees, and except for remedies available to us under our agreements with such contractors, we cannot control whether or not they devote sufficient time, skill and resources to our ongoing development programs. These contractors may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities, which could impede their ability to devote appropriate time to our clinical programs. If these third parties, including clinical investigators, do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we may not be able to obtain, or may be delayed in obtaining, regulatory approvals for our product candidates. If that occurs, we will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. In such an event, our financial results and the commercial prospects for any product candidates that we seek to develop could be harmed, our costs could increase and our ability to generate revenues could be delayed, impaired or foreclosed.

We also rely on other third parties to store and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or regulatory approval of our product candidates or commercialization of any resulting products, producing additional losses and depriving us of potential product revenue.

Any of the third-party organizations we utilize may terminate their engagements with us under certain circumstances. The replacement of an existing CRO or other third party may result in the delay of the affected trials or otherwise adversely affect our efforts to obtain regulatory approvals and commercialize our product candidates. Although we believe we have diversified our risk by engaging a number of CROs and other third-party organizations and there are a number of other CROs we could engage to continue these activities, we may not be able to enter into alternative arrangements or do so on commercially reasonable terms. In addition, while we believe there may be suitable replacements for one or more of these service providers, there is a natural transition period when a new service provider begins work. As a result, delays may occur, which could negatively impact our ability to meet our expected clinical development timelines and harm our business, financial condition and prospects.

In particular, we plan to rely on a hybrid functional service provider, or FSP, approach, where, rather than relying on a small number of third-party services providers for a full suite of services, we plan to use a wider number of third-party service providers on an à la carte basis grouped by specific function. We may not be able to realize the cost savings typically associated with the hybrid FSP approach, or this approach may require us to incur increased startup or integration costs. Our hybrid FSP approach may also require us to manage and monitor an increased number of service providers and contractual relationships. Finally, this approach may require us to handle certain functions, such as collecting, transmitting and storing patient data in compliance with applicable data privacy laws, internally rather than outsourcing them to third parties. Handling these functions internally may require us to spend more time and capital hiring and training employees, and any failure to do so successfully may negatively impact our operations.

We may seek to establish collaborations and, if we are not able to establish them on commercially reasonable terms, we may have to alter our development and commercialization plans.

The advancement of our product candidates and development programs and the potential commercialization of our current and future product candidates will require substantial additional cash to fund expenses. For some of our programs, we may decide to collaborate with other pharmaceutical and biotechnology companies with respect to development and potential commercialization. Likely collaborators may include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. In addition, if we are able to obtain regulatory approval for product candidates from foreign regulatory authorities, we may enter into collaborations with international biotechnology or pharmaceutical companies for the commercialization of such product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the potential differentiation of our product candidate from competing product candidates, design or results of clinical trials, the likelihood of approval by the FDA or comparable foreign regulatory authorities and the regulatory pathway for any such approval, the potential market for the product candidate, the costs and complexities of manufacturing and delivering the product to patients and the potential of competing products. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available for collaboration and whether such a collaboration could be more attractive than the one with us for our product candidate. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

Collaborations are complex and time-consuming to negotiate and document. Further, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators. Any collaboration agreements that we enter into in the future may contain restrictions on our ability to enter into potential collaborations or to otherwise develop specified product candidates. We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of the product candidate for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense.

If we enter into collaborations with third parties for the development and commercialization of our product candidates, our prospects with respect to those product candidates will depend in significant part on the success of those collaborations.

We may enter into collaborations for the development and commercialization of certain of our product candidates. If we enter into such collaborations, we will have limited control over the amount and timing of resources that our collaborators will dedicate to the development or commercialization of our product candidates. Our ability to generate revenues from these arrangements will depend on any future collaborators' abilities to successfully perform the functions assigned to them in these arrangements. In addition, any future collaborators may have the right to abandon research or development projects and terminate applicable agreements, including funding obligations, prior to or upon the expiration of the agreed upon terms.

Collaborations involving our product candidates pose a number of risks, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs, based on clinical trial results, changes in the collaborators' strategic focus or available funding or external factors, such as an acquisition, that divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates;
- a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;
- disagreements with collaborators, including disagreements over proprietary rights, including trade secrets and intellectual property rights, contract interpretation, or the preferred course of development might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If any future collaborator of ours is involved in a business combination, it could decide to delay, diminish or terminate the development or commercialization of any product candidate licensed to it by us.

Our use of third parties to manufacture our product candidates may increase the risk that we will not have sufficient quantities of our product candidates, raw materials, APIs or drug products when needed or at an acceptable cost.

We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of our product candidates, and we lack the resources and the capabilities to do so. Our current strategy is to outsource all manufacturing of our product candidates to third parties.

We currently rely on and engage third-party manufacturers to provide all of the API and the final drug product formulation of all of our product candidates that are being used in our clinical trials and preclinical studies. Although we believe that there are several potential alternative manufacturers who could manufacture our product candidates, we may incur added costs and delays in identifying and qualifying any such replacement. For instance, there are a limited number of suppliers who have spray-dried dispersion capabilities required to manufacture darigabat, and we can provide no assurance that we will be able to find an alternative manufacturer at an acceptable price. In addition, we typically order raw materials, API and drug product and services on a purchase order basis and do not enter into long-term dedicated capacity or minimum supply arrangements with any commercial manufacturer. There is no assurance that we will be able to timely secure needed supply arrangements on satisfactory terms, or at all. Our failure to secure these arrangements as needed could have a material adverse effect on our ability to complete the development of our product candidates or, to commercialize them, if approved. We may be unable to conclude agreements for commercial supply with third-party manufacturers or may be unable to do so on acceptable terms. There may be difficulties in scaling up to commercial quantities and formulation of our product candidates, and the costs of manufacturing could be prohibitive.

Many of the third-party manufacturers we rely on have only recently begun working with us and have limited or no experience manufacturing our API and final drug products. If our manufacturers have difficulty or suffer delays in successfully manufacturing material that meets our specifications, it may limit supply of our product candidates and could delay our clinical trials.

Even if we are able to establish and maintain arrangements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- the failure of the third-party manufacturer to comply with applicable regulatory requirements and reliance on third-parties for manufacturing process development, regulatory compliance and quality assurance;
- manufacturing delays if our third-party manufacturers give greater priority to the supply of other products over our product candidates or otherwise do not satisfactorily perform according to the terms of the agreement between us;
- limitations on supply availability resulting from capacity and scheduling constraints of third parties;
- the possible breach of manufacturing agreements by third-parties because of factors beyond our control;
- the possible termination or non-renewal of the manufacturing agreements by the third party, at a time that is costly or inconvenient to us; and
- the possible misappropriation of our proprietary information, including our trade secrets and know-how.

If we do not maintain our key manufacturing relationships, we may fail to find replacement manufacturers or develop our own manufacturing capabilities, which could delay or impair our ability to obtain regulatory approval for our products. If we do find replacement manufacturers, we may not be able to enter into agreements with them on terms and conditions favorable to us and there could be a substantial delay before new facilities could be qualified and registered with the FDA and other foreign regulatory authorities.

Additionally, if any third-party manufacturer with whom we contract fails to perform its obligations, we may be forced to manufacture the materials ourselves, for which we may not have the capabilities or resources, or enter into an agreement with a different manufacturer. In either scenario, our clinical trials supply could be delayed significantly as we establish alternative supply sources. In some cases, the technical skills required to manufacture our product candidates may be unique or proprietary to the original manufacturer and we may have difficulty, or there may be contractual restrictions prohibiting us from, transferring such skills to a back-up or alternate supplier, or we may be unable to transfer such skills at all. In addition, if we are required to change third-party manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that

comply with quality standards and with all applicable regulations. We will also need to verify, such as through a manufacturing comparability study, that any new manufacturing process will produce our product candidate according to the specifications previously submitted to the FDA or another regulatory authority. The delays associated with the verification of a new third-party manufacturer could negatively affect our ability to develop product candidates or commercialize our products in a timely manner or within budget. Furthermore, a third-party manufacturer may possess technology related to the manufacture of our product candidate that such third party owns independently. This would increase our reliance on such third-party manufacturer or require us to obtain a license from such third-party manufacturer in order to have another third party manufacture our product candidates. In addition, changes in manufacturers often involve changes in manufacturing procedures and processes, which could require that we conduct bridging studies between our prior clinical supply used in our clinical trials and that of any new manufacturer. We may be unsuccessful in demonstrating the comparability of clinical supplies which could require the conduct of additional clinical trials.

If any of our product candidates is approved by any regulatory agency, we intend to utilize arrangements with third-party contract manufacturers for the commercial production of those products. This process is difficult and time consuming and we may face competition for access to manufacturing facilities as there are a limited number of contract manufacturers operating under cGMPs that are capable of manufacturing our product candidates. Consequently, we may not be able to reach agreement with third-party manufacturers on satisfactory terms, which could delay our commercialization.

Some of our manufacturers are located outside of the United States. There is currently significant uncertainty about the future relationship between the U.S. and various other countries, including China, with respect to trade policies, treaties, government regulations and tariffs. Increased tariffs could potentially disrupt our existing supply chains and impose additional costs on our business. Additionally, it is possible further tariffs may be imposed that could affect imports of APIs used in our product candidates, or our business may be adversely impacted by retaliatory trade measures taken by China or other countries, including restricted access to such raw materials used in our product candidates. Given the unpredictable regulatory environment in China and the U.S. and uncertainty regarding how the U.S. or foreign governments will act with respect to tariffs, international trade agreements and policies, further governmental action related to tariffs, additional taxes, regulatory changes or other retaliatory trade measures in the future could occur with a corresponding detrimental impact on our business and financial condition.

Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, seizures or voluntary recalls of product candidates, operating restrictions and criminal prosecutions, any of which could significantly affect supplies of our product candidates. The facilities used by our contract manufacturers to manufacture our product candidates must be evaluated by the FDA. We do not control the manufacturing process of, and are completely dependent on, our contract manufacturing partners for compliance with cGMPs. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, we may not be able to secure and/or maintain regulatory approval for our product candidates manufactured at these facilities. In addition, we have no control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA finds deficiencies or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved. Contract manufacturers may face manufacturing or quality control problems causing drug substance production and shipment delays or a situation where the contractor may not be able to maintain compliance with the applicable cGMP requirements. Any failure to comply with cGMP requirements or other FDA, EMA and comparable foreign regulatory requirements could adversely affect our clinical research activities and our ability to develop our product candidates and market our products, if approved.

The FDA and other foreign regulatory authorities require manufacturers to register manufacturing facilities. The FDA and corresponding foreign regulators also inspect these facilities to confirm compliance with cGMPs.

Contract manufacturers may face manufacturing or quality control problems causing drug substance production and shipment delays or a situation where the contractor may not be able to maintain compliance with the applicable cGMP requirements. Any failure to comply with cGMP requirements or other FDA, EMA and comparable foreign regulatory requirements could adversely affect our clinical research activities and our ability to develop our product candidates and market our products following approval, if obtained.

If any third-party manufacturer of our product candidates is unable to increase the scale of its production of our product candidates or increase the product yield of its manufacturing, then our manufacturing costs may increase and commercialization may be delayed.

In order to produce sufficient quantities to meet the demand for clinical trials and, if approved, subsequent commercialization of our product candidates, our third-party manufacturers will be required to increase their production and optimize their manufacturing processes while maintaining the quality of our product candidates. The transition to larger scale production could prove difficult. In addition, if our third-party manufacturers are not able to optimize their manufacturing processes to increase the product yield for our product candidates, or if they are unable to produce increased amounts of our product candidates while maintaining the same quality then we may not be able to meet the demands of clinical trials or market demands, which could decrease our ability to generate profits and have a material adverse impact on our business and results of operation.

We may need to maintain licenses for APIs from third parties to develop and commercialize some of our product candidates, which could increase our development costs and delay our ability to commercialize those product candidates.

Should we decide to use any APIs in any of our product candidates that are proprietary to one or more third parties, we would need to maintain licenses to those APIs from those third parties. If we are unable to gain or continue to access rights to these APIs prior to conducting preclinical toxicology studies intended to support clinical trials, we may need to develop alternate product candidates from these programs by either accessing or developing alternate APIs, resulting in increased development costs and delays in commercialization of these product candidates. If we are unable to gain or maintain continued access rights to the desired APIs on commercially reasonable terms or develop suitable alternate APIs, we may not be able to commercialize product candidates from these programs.

Risks Related to Government Regulation

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our product candidates in other jurisdictions.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, the EMA or comparable foreign regulatory authorities must also approve the manufacturing and marketing of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials, as clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our products is also subject to approval.

We may also submit marketing applications in other countries. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of product candidates with which we must comply prior to marketing in those jurisdictions. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed.

In particular, the impact of the impending Brexit, whereby the United Kingdom is planning to leave the EEA, either with or without a “deal,” is uncertain and cannot be predicted at this time. Since a significant proportion of the regulatory framework in the United Kingdom is derived from EU directives and regulations, Brexit could materially impact the regulatory regime with respect to the approval of our product candidates in the United Kingdom or the EU. For instance, in November 2017, European Union member states voted to move the EMA, the European Union’s regulatory body, from London to Amsterdam. Operations in Amsterdam commenced in March 2019, and the move itself may cause significant disruption to the regulatory approval process in Europe. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, would prevent us from commercializing our product candidates in the United Kingdom and/or the EU and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or EU for our product candidates, which could significantly and materially harm our business.

Even if we receive regulatory approval of any product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates.

If any of our product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies and submission of safety, efficacy and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities. In addition, we will be subject to continued compliance with cGMP and GCP requirements for any clinical trials that we conduct post-approval.

Manufacturers and manufacturers’ facilities are required to comply with extensive FDA, EMA and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any NDA, other marketing application and previous responses to inspection observations. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

Any regulatory approvals that we receive for our product candidates may be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials and surveillance to monitor the safety and efficacy of the product candidate. Certain endpoint data we hope to include in any approved product labeling also may not make it into such labeling, including exploratory or secondary endpoint data such as patient-reported outcome measures. The FDA may also require a REMS program as a condition of approval of our product candidates, which could entail requirements for long-term patient follow-up, a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA, EMA or a comparable foreign regulatory authority approves our product candidates, we will have to comply with requirements including submissions of safety and other post-marketing information and reports and registration.

The FDA may impose consent decrees or withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with our product candidates, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information, imposition of post-market studies or clinical trials to assess new safety risks or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of our products, withdrawal of the product from the market or voluntary product recalls;
- fines, warning letters or holds on clinical trials;

- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or withdrawal of approvals;
- product seizure or detention or refusal to permit the import or export of our product candidates; and
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label. The policies of the FDA, EMA and comparable foreign regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

While we may in the future seek designations for our product candidates with the FDA and comparable foreign regulatory authorities that are intended to confer benefits such as a faster development process, an accelerated regulatory pathway or regulatory exclusivity, there can be no assurance that we will successfully obtain such designations. In addition, even if one or more of our product candidates are granted such designations, we may not be able to realize the intended benefits of such designations.

The FDA and comparable foreign regulatory authorities offer certain designations for product candidates that are designed to encourage the research and development of product candidates that are intended to address conditions with significant unmet medical need. These designations may confer benefits such as additional interaction with regulatory authorities, a potentially accelerated regulatory pathway and priority review. However, there can be no assurance that we will successfully obtain such designations for any of our product candidates. In addition, while such designations could expedite the development or approval process, they generally do not change the standards for approval. Even if we obtain such designations for one or more of our product candidates, there can be no assurance that we will realize their intended benefits.

For example, we may seek a Breakthrough Therapy Designation for some of our product candidates. A breakthrough therapy is defined as a therapy that is intended, alone or in combination with one or more other therapies, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the therapy may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For therapies that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Therapies designated as breakthrough therapies by the FDA are also eligible for accelerated approval. Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a Breakthrough Therapy Designation for a product candidate may not result in a faster development process, review or approval compared to therapies considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that such product candidates no longer meet the conditions for qualification.

In addition, we may seek Fast Track Designation for some of our product candidates. If a therapy is intended for the treatment of a serious or life-threatening condition and the therapy demonstrates the potential to address unmet medical needs for this condition, the therapy sponsor may apply for Fast Track Designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular product candidate is eligible for this designation, there can be no assurance that the FDA would decide to grant it. Even if we do receive Fast Track Designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures, and receiving a Fast Track Designation does not provide assurance of ultimate FDA approval. In addition, the FDA may withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program.

Some of our programs may be partially supported by government grant awards, which may not be available to us in the future or subject us to federal regulations such as "march-in" rights, certain reporting requirements, and a preference for U.S. industry.

We expect to receive funding under grant award programs funded by NIDA with respect to our product candidate CVL-936 to support the development of this compound in OUD. To fund a portion of our future research and development programs, we may apply for additional grant funding from NIDA or other governmental agencies. However, funding by these governmental agencies may be significantly reduced or eliminated in the future for a number of reasons. For example, some programs are subject to a yearly appropriations process in Congress. In addition, we may not receive full funding under current or future grants because of budgeting constraints of the agency administering the program or unsatisfactory progress on the study being funded. Therefore, we cannot assure you that we will receive any future grant funding from any government agencies, or, that if received, we will receive the full amount of the particular grant award. Any such reductions could delay the development of our product candidates.

Moreover, any intellectual property rights generated through the use of U.S. government funding are subject to the Bayh-Dole Act of 1980, or Bayh-Dole Act. These U.S. government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right to require us to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if the government determines that: (i) adequate steps have not been taken to commercialize the invention; (ii) government action is necessary to meet public health or safety needs; or (iii) government action is necessary to meet requirements for public use under federal regulations, which we refer to as march-in rights. The U.S. government also has the right to take title to these inventions if we fail, or the applicable licensor fails, to disclose the invention to the government, elect title, and file an application to register the intellectual property within specified time limits. In addition, the U.S. government may acquire title to these inventions in any country in which a patent application is not filed within specified time limits. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us, or the applicable licensor, to expend substantial resources. In addition, the U.S. government requires that any products embodying the subject invention or produced through the use of the subject invention be manufactured substantially in the U.S. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the U.S. or that under the circumstances domestic manufacture is not commercially feasible.

As a result of any funding from NIDA, or if we enter into future arrangements involving government funding, and we make inventions as a result of such funding, intellectual property rights to such discoveries may be subject to the applicable provisions of the Bayh-Dole Act. To the extent any of our current or future intellectual property is generated through the use of U.S. government funding, the provisions of the Bayh-Dole Act may similarly apply. Any exercise by the government of certain of its rights could harm our competitive position, business, financial condition, results of operations and prospects.

Our relationships with healthcare providers and physicians and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. Healthcare providers, physicians and third-party payors in the United States and elsewhere play a primary role in the recommendation and prescription of pharmaceutical products. Arrangements with third-party payors and customers can expose pharmaceutical manufacturers to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute and the FCA which may constrain the business or financial arrangements and relationships through which such companies sell, market and distribute pharmaceutical products. In particular, the research of our product candidates, as well as the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commission(s), certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials. The applicable federal, state and foreign healthcare laws and regulations that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual, or the purchase, lease, order or recommendation of any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity can be found guilty of violating the statute without actual knowledge of the statute or specific intent to violate it. In addition, a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the FCA. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers, and formulary managers on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution. On November 20, 2020, OIG finalized further modifications to the federal Anti-Kickback Statute. Under the final rules, OIG added safe harbor protections under the Anti-Kickback Statute for certain coordinated care and value-based arrangements among clinicians, providers, and others. This rule (with exceptions) became effective January 19, 2021. We continue to evaluate what effect, if any, this rule will have on our business;
- the federal civil monetary penalties laws, which impose civil fines for, among other things, the offering or transfer or remuneration to a Medicare or state healthcare program beneficiary if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state health care program, unless an exception applies;
- the federal civil and criminal false claims laws and civil monetary penalty laws, including the FCA, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, false or fraudulent claims for payment to, or approval by Medicare, Medicaid or other federal healthcare programs, knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim or an obligation to pay or transmit money to the federal government, or knowingly concealing or knowingly and improperly avoiding or decreasing or concealing an obligation to pay money to the federal government. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. The government may deem manufacturers to have "caused" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label. The FCA also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery;
- HIPAA, which created additional federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity can be found guilty of violating HIPAA without actual knowledge of the statute or specific intent to violate it;
- HIPAA, as amended by HITECH, and their respective implementing regulations, which impose, among other things, requirements on certain healthcare providers, health plans and healthcare clearinghouses, known as covered entities, as well as their respective business associates, independent contractors that perform services for covered entities that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions;

- the federal Physician Payments Sunshine Act, created under the Patient Protection and Affordable Care Act, as amended, and its implementing regulations, which require some manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the CMS within the HHS information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- federal price reporting laws, which require manufacturers to calculate and report complex pricing metrics to government programs, where such reported prices may be used in the calculation of reimbursement and/or discounts on approved products;
- federal consumer protection laws, which broadly regulate marketplace activities and activities that potentially harm consumers; and
- analogous state and foreign laws and regulations described above, among others, some of which may be broader in scope and may apply regardless of payor. Many U.S. states have adopted laws similar to the federal Anti-Kickback Statute and FCA which may apply to our business practices, including, but not limited to, research, distribution, sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers. In addition, some states have passed laws that require pharmaceutical companies to comply with the April 2003 Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers and/or the Pharmaceutical Research and Manufacturers of America's Code on Interactions with Healthcare Professionals. Several states also impose other marketing restrictions or require pharmaceutical companies to make marketing or price disclosures to the state and require the registration of pharmaceutical sales representatives. State and foreign laws, including for example the European Union General Data Protection Regulation, which became effective May 2018 also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. There are ambiguities as to what is required to comply with these state requirements and if we fail to comply with an applicable state law requirement we could be subject to penalties. Finally, state and local laws that require the registration of pharmaceutical sales representatives; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products. Pharmaceutical companies may also be subject to federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies continue to closely scrutinize interactions between pharmaceutical companies and pharmaceutical providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Ensuring business arrangements comply with applicable healthcare laws, as well as responding to possible investigations by government authorities, can be time and resource-consuming and can divert a company's attention from the business.

If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in federal and state funded healthcare programs, contractual damages and the curtailment or restricting of our operations, as well as additional reporting obligations and oversight if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws. Further, if any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to significant criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs. Any action for violation of these laws, even if successfully defended, could cause a biopharmaceutical manufacturer to incur significant legal expenses and divert management's attention from the operation of the business. Prohibitions or restrictions on sales or withdrawal of future marketed products could materially affect business in an adverse way.

Coverage and reimbursement may be limited or unavailable in certain market segments for our product candidates, if approved, which could make it difficult for us to sell any product candidates profitably.

The success of our product candidates, if approved, depends on the availability of coverage and adequate reimbursement from third-party payors. We cannot be sure that coverage and reimbursement will be available for, or accurately estimate the potential revenue from, our product candidates or assure that coverage and reimbursement will be available for any product that we may develop.

Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Coverage and adequate reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance.

Government authorities and other third-party payors, such as private health insurers and health maintenance organizations, decide which drugs and treatments they will cover and the amount of reimbursement. Coverage and reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors. As a result, obtaining coverage and reimbursement approval of a product from a government or other third-party payor is a time-consuming and costly process that could require us to provide to each payor supporting scientific, clinical and cost-effectiveness data for the use of our products on a payor-by-payor basis, with no assurance that coverage and adequate reimbursement will be obtained. In the United States, the principal decisions about reimbursement for new medicines are typically made by the Centers for Medicare & Medicaid Services, or CMS, an agency within the U.S. Department of Health and Human Services. CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare and private payors tend to follow CMS to a substantial degree. Even if we obtain coverage for a given product, the resulting reimbursement payment rates might not be adequate for us to achieve or sustain profitability or may require co-payments that patients find unacceptably high. Additionally, third-party payors may not cover, or provide adequate reimbursement for, long-term follow-up evaluations required following the use of product candidates, once approved. Patients are unlikely to use our product candidates, once approved, unless coverage is provided and reimbursement is adequate to cover a significant portion of their cost. There is significant uncertainty related to insurance coverage and reimbursement of newly approved products. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any product candidate that we commercialize and, if reimbursement is available, the level of reimbursement. In addition, many pharmaceutical manufacturers must calculate and report certain price reporting metrics to the government, such as average sales price and best price. Penalties may apply in some cases when such metrics are not submitted accurately and timely. Further, these prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs. Payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives.

Moreover, increasing efforts by governmental and other third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our product candidates. There has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for drugs.

At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its Member States to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular product candidate to currently available therapies. A Member State may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our product candidates. Historically, products launched in the European Union do not follow price structures of the U.S. and generally prices tend to be significantly lower.

Ongoing healthcare legislative and regulatory reform measures may have a material adverse effect on our business and results of operations.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of our products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of products have been a focus in this effort. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical products, limiting coverage and the amount of reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit a company's revenue generated from the sale of any approved products. Even if we do receive a favorable coverage determination for our products by third-party payors, coverage policies and third-party payor reimbursement rates may change at any time.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, such as bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their commercial products, which has resulted in several Congressional inquiries and proposed and enacted state and federal legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. Congress has indicated that it will continue to seek new legislative measures to control drug costs.

These laws, and future state and federal healthcare reform measures may be adopted in the future, any of which may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for any of our product candidates for which we may obtain regulatory approval or the frequency with which any such product candidate is prescribed or used.

Off-label use or misuse of our product candidates may harm our reputation in the marketplace or result in injuries that lead to costly product liability suits.

If our product candidates are approved by the FDA, we may only promote or market our product candidates for their specifically approved indications. We will train our marketing and sales force against promoting our product candidates for uses outside of the approved indications for use, known as “off-label uses.” We cannot, however, prevent a physician from using our product candidates off-label, when in the physician’s independent professional medical judgment he or she deems it appropriate. Furthermore, the use of our product candidates for indications other than those approved by the FDA may not effectively treat such conditions. Any such off-label use of our product candidates could harm our reputation in the marketplace among physicians and patients. There may also be increased risk of injury to patients if physicians attempt to use our product candidates for these uses for which they are not approved, which could lead to product liability suits that might require significant financial and management resources and that could harm our reputation.

Inadequate funding for the FDA, the SEC or other government agencies could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA or other government agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, upon completion of this offering and in our operations as a public company, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

EU drug marketing and reimbursement regulations may materially affect our ability to market and receive coverage for our products in the European member states.

We intend to seek approval to market our product candidates in both the United States and in selected foreign jurisdictions. If we obtain approval in one or more foreign jurisdictions for our product candidates, we will be subject to rules and regulations in those jurisdictions. In some foreign countries, particularly those in the European Union, the pricing of drugs is subject to governmental control and other market regulations which could put pressure on the pricing and usage of our product candidates. In these countries, pricing negotiations with governmental authorities can take considerable time after obtaining marketing approval of a product candidate. In addition, market acceptance and sales of our product candidates will depend significantly on the availability of adequate coverage and reimbursement from third-party payors for our product candidates and may be affected by existing and future healthcare reform measures.

Much like the federal Anti-Kickback Statute prohibition in the United States, the provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products is also prohibited in the European Union. The provision of benefits or advantages to reward improper performance generally is governed by the national anti-bribery laws of EU Member States and the Bribery Act 2010 in the UK. Infringement of these laws could result in substantial fines and imprisonment. EU Directive 2001/83/EC, which is the EU Directive governing medicinal products for human use, further provides that, where medicinal products are being promoted to persons qualified to prescribe or supply them, no gifts, pecuniary advantages or benefits in kind may be supplied, offered or promised to such persons unless they are inexpensive and relevant to the practice of medicine or pharmacy. This provision has been transposed into the Human Medicines Regulations 2012 and so remains applicable in the UK despite its departure from the EU.

Payments made to physicians in certain EU Member States must be publicly disclosed. Moreover, agreements with physicians often must be the subject of prior notification and approval by the physician's employer, his or her competent professional organization and/or the regulatory authorities of the individual EU Member States. These requirements are provided in the national laws, industry codes or professional codes of conduct, applicable in the EU Member States. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

In addition, in most foreign countries, including the EEA, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing and reimbursement vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. Reference pricing used by various EU member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. In some countries, we may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of any of our product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. There can be no assurance that any country that has price controls or reimbursement limitations for biopharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the European Union do not follow price structures of the United States and generally prices tend to be significantly lower. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If pricing is set at unsatisfactory levels or if reimbursement of our products is unavailable or limited in scope or amount, our revenues from sales and the potential profitability of any of our product candidates in those countries would be negatively affected.

We may incur substantial costs in our efforts to comply with evolving global data protection laws and regulations, and any failure or perceived failure by us to comply with such laws and regulations may harm our business and operations.

The global data protection landscape is rapidly evolving, and we may be or become subject to or affected by numerous federal, state and foreign laws and regulations, as well as regulatory guidance, governing the collection, use, disclosure, transfer, security and processing of personal data, such as information that we collect about participants and healthcare providers in connection with clinical trials. Implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future, which may create uncertainty in our business, affect our or our service providers' ability to operate in certain jurisdictions or to collect, store, transfer use and share personal data, result in liability or impose additional compliance or other costs on us. Any failure or perceived failure by us to comply with federal, state, or foreign laws or self-regulatory standards could result in negative publicity, diversion of management time and effort and proceedings against us by governmental entities or others. For example, California recently passed the California Data Privacy Protection Act, which goes into effect in January 2020 and provides broad rights to California consumers with respect to the collection and use of their information by businesses. The new California law further expands the privacy and process enhancements and commitment of resources in support of compliance with California's regulatory requirements and may lead to similar laws in other U.S. states or at a national level.

In addition to our operations in the United States, which may be subject to healthcare and other laws relating to the privacy and security of health information and other personal information, may seek to conduct clinical trials in EEA and may become subject to additional European data privacy laws, regulations and guidelines. The GDPR became effective on May 25, 2018, and deals with the processing of personal data and on the free movement of such data. The GDPR imposes a broad range of strict requirements on companies subject to the GDPR, including requirements relating to having legal bases for processing personal information relating to identifiable individuals and transferring such information outside the EEA, including to the United States, providing details to those individuals regarding the processing of their personal information, keeping personal information secure, having data processing agreements with third parties who process personal information, responding to individuals' requests to exercise their rights in respect of their personal information, reporting security breaches involving personal data to the competent national data protection authority and affected individuals, appointing data protection officers, conducting data protection impact assessments and record-keeping. The GDPR increases substantially the penalties to which we could be subject in the event of any non-compliance, including fines of up to 10,000,000 Euros or up to 2% of our total worldwide annual revenue for certain comparatively minor offenses, or up to 20,000,000 Euros or up to 4% of our total worldwide annual revenue for more serious offenses. Given the limited enforcement of the GDPR to date, particularly in the pharmaceutical space, we face uncertainty as to the exact interpretation of the new requirements on our trials and we may be unsuccessful in implementing all measures required by data protection authorities or courts in interpretation of the new law.

In particular, national laws of member states of the European Union are in the process of being adapted to the requirements under the GDPR, thereby implementing national laws which may partially deviate from the GDPR and impose different obligations from country to country, so that we do not expect to operate in a uniform legal landscape in the EEA. Also, as it relates to processing and transfer of genetic data, the GDPR specifically allows national laws to impose additional and more specific requirements or restrictions, and European laws have historically differed quite substantially in this field, leading to additional uncertainty.

For any clinical trials we commence in the EEA, we must also ensure that we maintain adequate safeguards to enable the transfer of personal data outside of the EEA, in particular to the United States, in compliance with European data protection laws. We expect that we will continue to face uncertainty as to whether our efforts to comply with any obligations under European privacy laws will be sufficient. If we are investigated by a European data protection authority, we may face fines and other penalties. Any such investigation or charges by European data protection authorities could have a negative effect on our existing business and on our ability to attract and retain new clients or pharmaceutical partners. We may also experience hesitancy, reluctance or refusal by European or multi-national clients or pharmaceutical partners to continue to use our products and solutions due to the potential risk exposure as a result of the current (and, in particular, future) data protection obligations imposed on them by certain data protection authorities in interpretation of current law, including the GDPR. Such clients or pharmaceutical partners may also view any alternative approaches to compliance as being too costly, too burdensome, too legally uncertain or otherwise objectionable and therefore decide not to do business with us. Any of the forgoing could materially harm our business, prospects, financial condition and results of operations.

Additional laws and regulations governing international operations could negatively impact or restrict our operations.

If we further expand our operations outside of the United States, we must dedicate additional resources to comply with numerous laws and regulations in each jurisdiction in which we plan to operate. The U.S. Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering, authorizing payment or offering anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with certain accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and doctors and other hospital employees are considered foreign officials. Certain payments to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

Various laws, regulations and executive orders also restrict the use and dissemination outside of the United States, or the sharing with certain non-U.S. nationals, of information classified for national security purposes, as well as certain products and technical data relating to those products. If we expand our presence outside of the United States, it will require us to dedicate additional resources to comply with these laws, and these laws may preclude us from developing, manufacturing or selling certain products and product candidates outside of the United States, which could limit our growth potential and increase our development costs.

The failure to comply with laws governing international business practices may result in substantial civil and criminal penalties and suspension or debarment from government contracting. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

We are subject to certain U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions and other trade laws and regulations. We can face serious consequences for violations.

Among other matters, U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions and other trade laws and regulations, which are collectively referred to as Trade Laws, prohibit companies and their employees, agents, CROs, legal counsel, accountants, consultants, contractors and other partners from authorizing, promising, offering, providing, soliciting or receiving, directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Violations of Trade Laws can result in substantial criminal fines and civil penalties, imprisonment, the loss of trade privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We also expect our non-U.S. activities to increase in time. We plan to engage third parties for clinical trials and/or to obtain necessary permits, licenses, patent registrations and other regulatory approvals and we can be held liable for the corrupt or other illegal activities of our personnel, agents or partners, even if we do not explicitly authorize or have prior knowledge of such activities.

Risks Related to Our Intellectual Property

We depend and expect in the future to continue to depend on in-licensed intellectual property. Such licenses impose obligations on our business, and if we fail to comply with those obligations, we could lose license rights, which would substantially harm our business.

We are dependent on patents, know-how and proprietary technology, both our own and licensed from others. We are and may in the future become a party to license agreements pursuant to which we in-license key intellectual property for our product candidates and their use. Soon after we began our operations in July 2018, we entered into the Pfizer License Agreement pursuant to which we in-licensed each of our current product candidates. The Pfizer License Agreement excludes the field of treatment of prevention, diagnosis, control and maintenance of inflammatory bowel diseases and disorders in humans by compounds or products exerting a therapeutic effect on Leucine-Rich Repeat Kinase 2, or the LRRK2 field, which is retained by Pfizer. The Pfizer License Agreement imposes various diligence, milestone payments, royalty, insurance and other obligations on us. For example, under the terms of the Pfizer License Agreement, we are obligated to use commercially reasonable efforts to develop and seek regulatory approval for each of the product candidates licensed to us in certain designated countries. If we fail to comply with any of these obligations, Pfizer may have the right to terminate the Pfizer License Agreement, in which event we would not be able to develop or market our product candidates covered by such licensed intellectual property. Upon Pfizer's termination of the Pfizer License Agreement for our material breach or either party's termination for bankruptcy, insolvency or other similar proceeding or force majeure, we would grant Pfizer an exclusive, sublicensable, royalty-free, worldwide, perpetual license under certain intellectual property we develop during the term of the Pfizer License Agreement. Any termination of our existing or future licenses could result in the loss of significant rights and would cause material adverse harm to our ability to commercialize our product candidates. See the section entitled "*Business—Pfizer License Agreement*" for additional information.

Additionally, Pfizer has an exclusive right of first negotiation in the event that we seek to enter into any significant transaction with a third party with respect to a product either globally or in certain designated countries. Significant transactions include exclusive licenses, assignments, sales, exclusive co-promotion arrangements, and other transfers of all commercial rights to a product globally or in the designated countries, as well as exclusive distribution agreements globally or in certain designated countries. This right of first negotiation may limit or delay our ability to enter into arrangements with other companies related to our product candidates and could discourage, delay or prevent a merger, acquisition or change of control of our company.

Disputes may also arise between us and our licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether we have used a sufficient level of effort to develop product candidates;
- whether and the extent to which our technology and processes infringe intellectual property of the licensor that is not subject to the licensing agreement;

- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of licensed technology in relation to our development and commercialization of our product candidates and what activities satisfy those diligence obligations; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates. The Pfizer License Agreement imposes, and we expect that future license agreements will impose, various diligence, milestone payments, royalty, insurance and other obligations, and our failure to comply could give the applicable licensor a right to terminate the license, thereby impairing or preventing us from developing and marketing the product candidates covered by the applicable agreement.

Although we have the right to control the maintenance, prosecution and enforcement of rights in-licensed under the Pfizer License Agreement, we are required to conduct our activities in compliance with the terms of the Pfizer License Agreement, which imposes on us certain obligations and grants Pfizer certain rights with respect to these activities. Additionally, we may have limited control over the maintenance, prosecution or enforcement of other rights that we in-license, and we may also have limited control over activities previously or separately conducted by our licensors. For example, we cannot be certain that activities conducted by Pfizer or any other present or future licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. We may also have limited control over other intellectual property that is not licensed to us but that may be related to our in-licensed intellectual property. We may have limited control over the manner in which our licensors initiate an infringement proceeding against a third-party infringer of the intellectual property rights or defend certain of the intellectual property that is licensed to us. It is possible that the licensors' infringement proceeding or defense activities may be less vigorous than had we conducted them ourselves.

We are generally also subject to all of the same risks with respect to protection of intellectual property that we own, as we are for intellectual property that we license, which are described below. If we or our licensors fail to adequately protect this intellectual property, our ability to commercialize products could materially suffer.

Our success depends in part on our ability to protect our intellectual property, and patent terms may be inadequate to protect our competitive position. It is difficult and costly to protect our proprietary rights and technology, and we may not be able to ensure their protection.

Our commercial success will depend in large part on obtaining and maintaining patent, trademark and trade secret protection for our proprietary technologies and our product candidates, their respective components, formulations, combination therapies, methods used to manufacture them and methods of treatment, as well as successfully defending these patents against third-party challenges. Our ability to stop unauthorized third parties from making, using, selling, offering to sell or importing our product candidates is affected by the extent to which we have rights under valid and enforceable patents that cover these activities. If our patents expire, or we are unable to secure and maintain patent protection for any product or technology we develop, or if the scope of the patent protection secured is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to commercialize any product candidates we may develop may be adversely affected.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the statutory expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. While various extensions such as patent term adjustments and/or extensions, may be available, the life of a patent, and the protection it affords, is limited. Our current composition of matter patents, and patents that may issue from our pending patent applications, covering new chemical entities, pharmaceutical compositions comprising those entities, and their use in methods of treating various diseases and/or disorders, which we licensed from Pfizer, in connection with the formation of our company, are expected to expire between 2033 and 2039, not including any patent term extensions or adjustments. Our earliest patents may expire before, or soon after, our product candidates achieve marketing approval in the United States or foreign jurisdictions. Once the patent life has expired, we may be open to competition from competitive products, including generics. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours. The expiration of the patents covering our lead product candidates, and our inability to secure additional patent protection, could also have a material adverse effect on our business, results of operations, financial condition and prospects.

The patenting process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. In addition, we may not pursue or obtain patent protection in all relevant markets. It is also possible that we will fail to identify patentable aspects of our research and development before it is too late to obtain patent protection. Moreover, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from or license to third parties and are reliant on our licensors or licensees.

The strength of patents in the biopharmaceutical field involves complex legal and scientific questions and can be uncertain. The patent applications that we own or in-license now or in the future may fail to result in issued patents with claims that cover our product candidates or uses thereof in the United States or in other foreign countries. Even if the patents do successfully issue, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, the patents covering our product candidates may not adequately protect our intellectual property or prevent others from designing around our claims. If the breadth or strength of protection provided by the patents we hold with respect to our product candidates is threatened, it could dissuade companies from collaborating with us to develop, and threaten our ability to commercialize, our product candidates. Further, if we encounter delays in our clinical trials, the period of time during which we could market our product candidates under patent protection would be reduced.

Since patent applications in the United States and most other countries are confidential for a period of time after filing, there is no certainty that any of our patent applications related to a product candidate was the first to be filed. Furthermore, for United States applications in which at least one claim is entitled to a priority date before March 16, 2013, an interference proceeding can be provoked by a third party or instituted by the U.S. Patent and Trademark Office, or USPTO, to determine who was the first to invent any of the subject matter covered by the patent claims of the application. We therefore cannot be certain that we were the first to invent any inventions covered by a pending patent application.

We may be required to disclaim part or all of the term of certain patents or certain patent applications. There may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. No assurance can be given that if challenged, our patents would be declared by a court to be valid or enforceable or that even if found valid and enforceable, a competitor's technology or product would be found by a court to infringe our patents. We may analyze patents or patent applications of our competitors that we believe are relevant to our activities, and consider that we are free to operate in relation to our product candidates, but our competitors may achieve issued claims, including in patents we consider to be unrelated, which block our efforts or may potentially result in our product candidates or our activities infringing such claims. The possibility exists that others will develop products which have the same effect as our products on an independent basis which do not infringe our patents or other intellectual property rights or will design around the claims of patents that we have had issued that cover our products.

Recent or future patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. Under the Leahy-Smith America Invents Act, or America Invents Act, enacted in 2013, the United States moved from a "first-to-invent" to a "first-to-file" system. Under a "first-to-file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to a patent on the invention regardless of whether another inventor had made the invention earlier. The America Invents Act includes a number of other significant changes to U.S. patent law, including provisions that affect the way patent applications are prosecuted, redefine prior art and establish a new post-grant review system. The effects of these changes are now being felt in the prosecution of pending patent applications and the enforcement of issued patents. The applicability of the act, and new regulations on the specific applications and patents discussed herein have not been determined and would need to be reviewed. However, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to make or use compounds that are similar to the compositions of our product candidates but that are not covered by the claims of our patents;
- the APIs in our current product candidates may eventually become commercially available in generic drug products, and no patent protection may be available with regard to their formulation or method of use;
- we or our licensors, as the case may be, may fail to meet our obligations to the U.S. government in regard to any in-licensed patents and patent applications funded by U.S. government grants, leading to the loss of patent rights;
- we or our licensors, as the case may be, might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or design around any of our or our licensors' technologies;
- it is possible that pending patent applications will not result in issued patents;
- it is possible that there are prior public disclosures that could invalidate our or our licensors' patents, as the case may be, or parts of our or their patents;
- it is possible that others may circumvent our owned or in-licensed patents;
- it is possible that there are unpublished applications or patent applications maintained in secrecy that may later issue with claims covering our products or technology similar to ours;
- the laws of foreign countries may not protect our or our licensors', as the case may be, proprietary rights to the same extent as the laws of the United States;
- the claims of our owned or in-licensed issued patents or patent applications, if and when issued, may not cover our product candidates;
- our owned or in-licensed issued patents may not provide us with any competitive advantages, may be narrowed in scope, or be held invalid or unenforceable as a result of legal challenges by third parties;
- the inventors of owned or in-licensed patents or patent applications may become involved with competitors, develop products or processes which design around our patents, or become hostile to us or the patents or patent applications on which they are named as inventors;
- it is possible that our owned or in-licensed patents or patent applications omit individual(s) that should be listed as inventor(s) or include individual(s) that should not be listed as inventor(s), which may cause these patents or patents issuing from these patent applications to be held invalid or unenforceable because such omissions or inclusions are held to be done with deceptive intent;
- we may engage in scientific collaborations with one or more third parties, and such collaborators may develop adjacent or competing products to ours that are outside the scope of our patents;
- we may not develop additional proprietary technologies for which we can obtain patent protection;
- it is possible that product candidates we develop may be covered by third parties' patents or other exclusive rights; or
- the patents of others may have an adverse effect on our business.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to patent protection, we rely heavily upon know-how and trade secret protection, as well as non-disclosure agreements and invention assignment agreements with our employees, consultants and third parties, to protect our confidential and proprietary information, especially where we do not believe patent protection is appropriate or obtainable. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual or entity during the course of the party's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements provide that all inventions conceived or completed by the individual, and which are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property. In addition to contractual measures, we try to protect the confidential nature of our proprietary information using physical and technological security measures. Such measures may not, for example, in the case of misappropriation of a trade secret by an employee or third party with authorized access, provide adequate protection for our proprietary information. Our security measures may, for example, not prevent an employee or consultant from misappropriating our trade secrets and providing them to a competitor, and recourse we take against such misconduct may not provide an adequate remedy to protect our interests fully.

Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, trade secrets may be independently developed by others in a manner that could prevent legal recourse by us. If any of our confidential or proprietary information, such as our trade secrets, were to be disclosed or misappropriated, or if any such information was independently developed by a competitor, our competitive position could be harmed. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Thus, we may not be able to meaningfully protect our trade secrets.

If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. These lawsuits may consume our time and other resources even if we are successful. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology.

Third-party claims of intellectual property infringement may prevent or delay our product discovery and development efforts.

Our commercial success depends in part on our ability to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries. We may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our product candidates and/or proprietary technologies infringe their intellectual property rights. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may give rise to claims of infringement of the patent rights of others. Moreover, it is not always clear to industry participants, including us, which patents cover various types of drugs, products or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications filed in our fields, there may be a risk that third parties may allege they have patent rights encompassing our product candidates, technologies or methods.

If a third party claims that we infringe its intellectual property rights, we may face a number of issues, including, but not limited to:

- infringement and other intellectual property claims, which, regardless of merit, may be expensive and time-consuming to litigate and may divert our management's attention from our core business;
- substantial damages for infringement, which we may have to pay if a court decides that the product candidate or technology at issue infringes on or violates the third party's rights, and, if the court finds that the infringement was willful, we could be ordered to pay treble damages and the patent owner's attorneys' fees;

- a court prohibiting us from developing, manufacturing, marketing or selling our product candidates, or from using our proprietary technologies, unless the third party licenses its product rights to us, which it is not required to do;
- if a license is available from a third party, we may have to pay substantial royalties, upfront fees and other amounts, and/or grant cross-licenses to intellectual property rights for our products; and
- redesigning our product candidates or processes so they do not infringe, which may not be possible or may require substantial monetary expenditures and time.

Even if we are successful in defending against such claims, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and, if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. This type of litigation or proceeding could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Uncertainties resulting from the initiation and continuation of patent litigation or other intellectual property related proceedings could adversely affect our ability to compete in the marketplace.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, results of operations, financial condition and prospects.

Generally, conducting clinical trials and other development activities in the United States is protected under the Safe Harbor exemption as set forth in 35 U.S.C. §271. If and when any of our product candidates are approved by the FDA, third-parties may then seek to enforce their U.S. patents by filing a patent infringement lawsuit against us. While we may believe that any claims of such patents that could otherwise materially adversely affect commercialization of our product candidates, if approved, and of which we are now aware, are not valid and enforceable, we may be incorrect in this belief, or we may not be able to prove it in a litigation. In this regard, patents issued in the U.S. by law enjoy a presumption of validity that can be rebutted only with evidence that is “clear and convincing,” a heightened standard of proof. There may also be third-party patents of which we are currently unaware with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of our product candidates, constructs or molecules used in or formed during the manufacturing process, or any final product itself, or uses or formulations thereof, the holders of any such patents may be able to block our ability to commercialize the product candidate unless we obtained a license under the applicable patents, or until such patents expire or they are finally determined to be invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, our ability to commercialize our product candidates may be impaired or delayed, which could in turn significantly harm our business. Even if we obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, if the breadth or strength of protection provided by our patents and any patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize our product candidates, which could harm our business significantly.

Third parties may assert that our employees, consultants, collaborators or partners have wrongfully used or disclosed confidential information or misappropriated trade secrets.

As is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously employed at universities or other biopharmaceutical or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, and although we try to ensure that our employees and consultants do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a former employer or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. This risk is similarly applicable with respect to claims by third parties against any current or future licensors.

We or our licensors may be subject to claims challenging the inventorship or ownership of the patents and other intellectual property that we own or license now or in the future.

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an ownership interest in the patents and intellectual property that we in-license or that we may own or in-license in the future. While it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own or such assignments may not be self-executing or may be breached. Our licensors may face similar obstacles. We or our licensors could be subject to ownership disputes arising, for example, from conflicting obligations of employees, consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against any claims challenging inventorship or ownership. If we or our licensors fail in defending any such claims, we may have to pay monetary damages and may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property, which could adversely impact our business, results of operations and financial condition.

We may not be successful in obtaining or maintaining necessary rights to develop any future product candidates on acceptable terms.

Because our programs may involve additional product candidates that may require the use of proprietary rights held by third parties, the growth of our business may depend in part on our ability to acquire, in-license or use these proprietary rights.

For example, we may develop products containing our compounds and pre-existing pharmaceutical compounds. Our product candidates may also require specific formulations to work effectively and efficiently and rights to these formulations may be held by others. We may be unable to acquire or in-license any compositions, formulations, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary or important to our business operations. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all, which would harm our business. We may need to cease use of the compositions or methods covered by such third-party intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on such intellectual property rights which may entail additional costs and development delays, even if we were able to develop or in-license such alternatives or replacement technology, which may not be feasible. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us.

Additionally, we may from time to time collaborate with academic institutions to accelerate our preclinical research or development under written agreements with these institutions. In certain cases, these institutions may provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to others, potentially blocking our ability to pursue our program. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of such program and our business and financial condition could suffer.

The licensing and acquisition of third-party intellectual property rights is a competitive area, and companies, which may be more established, or have greater resources than we do, may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our product candidates. More established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. There can be no assurance that we will be able to successfully complete such negotiations and ultimately acquire the rights to the intellectual property surrounding the additional product candidates that we may seek to acquire.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents or the patents of our licensors. To counter such infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. If legal proceedings are initiated against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that the patent covering our product candidate, as applicable, is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to validity, for example, we cannot be certain that there is no invalidating prior art, of which we, our patent counsel and the patent examiner were unaware during prosecution. Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover our product candidates. In addition, a court may refuse to stop the other party from using the technology at issue on the grounds that the public interest favors the third party's continued use of our technology on a royalty basis. An adverse result in any litigation or defense proceedings could also put any related patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. If we are otherwise unable to adequately protect our rights, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection could have a material adverse impact on our business and our ability to commercialize or license our technology and product candidates.

Third parties may choose to challenge the patentability of claims in our U.S. patents by requesting that the USPTO review the patent claims in an ex-parte re-exam, inter partes review or post-grant review proceedings. These proceedings are expensive and may consume our time or other resources. Third parties may also choose to challenge our patents in patent opposition proceedings in the European Patent Office, or EPO, or similar proceedings in other foreign patent offices. The costs of these opposition or nullity proceedings could be substantial and may consume our time or other resources. If we fail to obtain a favorable result at the USPTO, EPO or other patent offices then our patents may be cancelled or narrowed in scope.

In addition, because some patent applications in the United States may be maintained in secrecy until the patents are issued, and most patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, and publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by issued patents or any pending applications, or that we or, if applicable, a licensor were the first to invent the technology. Our competitors also may have filed, and may in the future file, patent applications covering our products or technology similar to ours. Any such patent application may have priority over our patents or any patent applications, which could require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to those owned by or in-licensed to us, we or, in the case of in-licensed technology, the licensor may have to participate in an interference or derivation proceeding declared by the USPTO to determine priority or derivation of invention in the United States. If we or one of our licensors is a party to such proceedings involving a U.S. patent application on inventions owned by or in-licensed to us, we may incur substantial costs, divert management's time and expend other resources, even if we are successful. An unfavorable outcome could result in a loss of our current patent rights and could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms or at all.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during such litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees on patents and patent applications are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent applications and patents. The USPTO and various foreign governmental patent agencies also require compliance with a number of procedural, documentary, fee payment and other provisions during the patent application process and following the issuance of a patent. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Noncompliance events that could result, if not cured, in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

Changes in patent law in the United States and in ex-U.S. jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing and proposing wide-ranging patent reform legislation. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents, particularly those directed to pharmaceutical and biopharmaceutical products and uses could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. We cannot predict how these decisions or any future decisions by the U.S. Congress, the federal courts or the USPTO may impact the value of our patents. Similarly, any adverse changes in the patent laws of other jurisdictions could have a material adverse effect on our business and financial condition.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world is expensive. While many of our licensed patents, including the patents covering our lead product candidates, have been issued in major markets and other countries, our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States where we have issued patents, or from selling or importing products made using our inventions in other jurisdictions. Competitors may also use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we do not have patent protection or where we have patent protection but where enforcement is not as strong as that in the United States. These products may compete with our products in and our patents or other intellectual property rights may not be effective or sufficient to prevent such competition.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to pharmaceutical and biopharmaceutical products, which could make it difficult for us or our licensors to stop the infringement of our patents or marketing of competing products against third parties in violation of our proprietary rights generally. The initiation of proceedings for infringement by third parties or by third parties to challenge the scope or validity of our patent rights in foreign jurisdictions could also result in substantial cost and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and any related patent applications at risk of not issuing and could provoke third parties to assert claims against us or our licensors. We may not prevail in any lawsuits that we initiate or are initiated against us and the damages or other remedies awarded in lawsuits that we initiate, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

If we do not obtain patent term extension and data exclusivity for any product candidates we may develop, our business may be materially harmed.

Depending upon the timing, duration and specifics of any FDA marketing approval of any product candidates we may develop, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Action of 1984, or Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent per eligible drug may be extended and only those claims covering the approved drug, an approved method for using it or a method for manufacturing it may be extended. Patent term extensions tied to marketing approval in foreign jurisdictions may also be available for our patents. However, we may not be granted an extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations and prospects could be materially harmed.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected.

Risks Related to Our Common Stock and Warrants

An active trading market for our common stock or warrants may never develop or be sustained, which may make it difficult to sell the shares of our common stock or warrants you purchase.

An active trading market for our common stock or warrants may not develop or continue or, if developed, may not be sustained, which would make it difficult for you to sell your shares of our common stock or warrants at an attractive price (or at all). The market price of our common stock or warrants may decline below your purchase price, and you may not be able to sell your shares of our common stock or warrants at or above the price you paid for such shares (or at all).

There can be no assurance that we will be able to comply with the continued listing standards of Nasdaq.

If Nasdaq delists our shares of common stock or warrants from trading on its exchange for failure to meet Nasdaq's listing standards, we and our stockholders could face significant material adverse consequences including:

- a limited availability of market quotations for our securities;
- reduced liquidity for our securities;
- a determination that our common stock is a "penny stock" which will require brokers trading in our common stock to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for our securities;
- a limited amount of news and analyst coverage; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

The price of our common stock and warrants may be volatile.

The price of our common stock and warrants may fluctuate due to a variety of factors, including:

- changes in the industries in which we and our customers operate;
- variations in our operating performance and the performance of our competitors in general;
- material and adverse impact of the COVID-19 pandemic on the markets and the broader global economy;
- actual or anticipated fluctuations in our quarterly or annual operating results;
- publication of research reports by securities analysts about us, our competitors or our industry;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;
- additions and departures of key personnel;
- changes in laws and regulations affecting our business;
- commencement of, or involvement in, litigation involving us;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of shares of our common stock available for public sale; and
- general economic and political conditions such as recessions, interest rates, fuel prices, foreign currency fluctuations, international tariffs, social, political and economic risks and acts of war or terrorism.

These market and industry factors may materially reduce the market price of share of our common stock and warrants regardless of our operating performance.

Reports published by analysts, including projections in those reports that differ from our actual results, could adversely affect the price and trading volume of our common shares.

Securities research analysts may establish and publish their own periodic projections for us. These projections may vary widely and may not accurately predict the results we actually achieve. Our share price may decline if our actual results do not match the projections of these securities research analysts. Similarly, if one or more of the analysts who write reports on us downgrades our stock or publishes inaccurate or unfavorable research about our business, our share price could decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, our share price or trading volume could decline.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our shares of common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our shares of common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our shares of common stock. Although the Perceptive Shareholders, the Bain Investor and Pfizer will be subject to certain restrictions regarding the transfer of our shares of common stock, these shares may be sold after the expiration of the respective applicable lock-up under the Registration and Shareholder Rights Agreement. As restrictions on resale end and the registration statements are available for use, the market price of our shares of common stock could decline if the holders of currently restricted shares sell them or are perceived by the market as intending to sell them.

Warrants will become exercisable for our shares of common stock, which would increase the number of shares eligible for future resale in the public market and result in dilution to our stockholders.

Outstanding warrants to purchase an aggregate of 5,149,647 shares of our shares of common stock will become exercisable in accordance with the terms of the warrant agreement governing those securities. These warrants will become exercisable beginning on June 9, 2021. The exercise price of these warrants will be \$11.50 per share. To the extent such warrants are exercised, additional shares of our shares of common stock will be issued, which will result in dilution to the holders of our shares of common stock and increase the number of shares eligible for resale in the public market. Sales of substantial numbers of such shares in the public market or the fact that such warrants may be exercised could adversely affect the market price of our shares of common stock. However, there is no guarantee that the warrants will ever be in the money prior to their expiration, and as such, the warrants may expire worthless. See “—Our warrants may never be in the money, and they may expire worthless and the terms of the warrants may be amended in a manner adverse to a holder if holders of at least 50% of the then outstanding public warrants approve of such amendment.”

Our warrants may never be in the money, and they may expire worthless and the terms of the warrants may be amended in a manner adverse to a holder if holders of at least 50% of the then outstanding warrants approve of such amendment.

The warrants were issued in registered form under a warrant agreement between Continental Stock Transfer & Trust Company, as warrant agent, and ARYA. The warrant agreement provides that the terms of the warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision or correct any mistake, but requires the approval by the holders of at least 50% of the then-outstanding public warrants to make any change that adversely affects the interests of the registered holders of public warrants. Accordingly, we may amend the terms of the public warrants in a manner adverse to a holder if holders of at least 50% of the then-outstanding public warrants approve of such amendment and, solely with respect to any amendment to the terms of the private placement warrants or any provision of the warrant agreement with respect to the private placement warrants, 50% of the number of the then outstanding private placement warrants. Although our ability to amend the terms of the public warrants with the consent of at least 50% of the then-outstanding public warrants is unlimited, examples of such amendments could be amendments to, among other things, increase the exercise price of the warrants, convert the warrants into cash, shorten the exercise period or decrease the number of shares of our shares of common stock purchasable upon exercise of a warrant.

We may redeem your unexpired warrants prior to their exercise at a time that is disadvantageous to you, thereby making your warrants worthless.

We have the ability to redeem outstanding warrants at any time after they become exercisable and prior to their expiration, at a price of \$0.01 per warrant, provided that the last reported sales price of our shares of common stock equals or exceeds \$18.00 per share (as adjusted for share subdivisions, share dividends, rights issuances, subdivisions, reorganizations, recapitalizations and the like) for any 20 trading days within a 30 trading-day period ending on the third trading day prior to the date we send the notice of redemption to the warrant holders. If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws. Redemption of the outstanding warrants could force you to: (i) exercise your warrants and pay the exercise price therefor at a time when it may be disadvantageous for you to do so; (ii) sell your warrants at the then-current market price when you might otherwise wish to hold your warrants; or (iii) accept the nominal redemption price which, at the time the outstanding warrants are called for redemption, is likely to be substantially less than the market value of your warrants.

In addition, we may redeem your warrants at any time after they become exercisable and prior to their expiration at a price of \$0.10 per warrant upon a minimum of 30 days' prior written notice of redemption provided that holders will be able to exercise their warrants prior to redemption for a number of shares of common stock determined based on the redemption date and the fair market value of our common stock.

The value received upon exercise of the warrants (1) may be less than the value the holders would have received if they had exercised their warrants at a later time where the underlying share price is higher and (2) may not compensate the holders for the value of the warrants, including because the number of ordinary shares received is capped at 0.365 shares of common stock per warrant (subject to adjustment) irrespective of the remaining life of the warrants.

Our issuance of additional capital stock in connection with financings, acquisitions, investments, our stock incentive plans or otherwise will dilute all other stockholders.

We expect to issue additional capital stock in the future that will result in dilution to all other stockholders. We expect to grant equity awards to employees, directors, and consultants under our stock incentive plans. We may also raise capital through equity financings in the future. As part of our business strategy, we may acquire or make investments in complementary companies, products, or technologies and issue equity securities to pay for any such acquisition or investment. Any such issuances of additional capital stock may cause stockholders to experience significant dilution of their ownership interests and the per share value of our common stock to decline.

Because we have no current plans to pay cash dividends on our common stock, you may not receive any return on investment unless you sell your common stock for a price greater than that which you paid for it.

We have no current plans to pay cash dividends on our common stock. The declaration, amount and payment of any future dividends will be at the sole discretion of our board of directors. Our board of directors may take into account general and economic conditions, our financial condition and operating results, our available cash, current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions, implications on the payment of dividends by us to our stockholders or by our subsidiary to us and such other factors as our board of directors may deem relevant. In addition, the terms of our existing financing arrangements restrict or limit our ability to pay cash dividends. Accordingly, we may not pay any dividends on our common stock in the foreseeable future.

Future offerings of debt or equity securities by us may adversely affect the market price of our common stock.

In the future, we may attempt to obtain financing or to further increase our capital resources by issuing additional shares of our common stock or offering debt or other equity securities, including commercial paper, medium-term notes, senior or subordinated notes, debt securities convertible into equity or shares of preferred stock. Future acquisitions could require substantial additional capital in excess of cash from operations. We would expect to obtain the capital required for acquisitions through a combination of additional issuances of equity, corporate indebtedness and/or cash from operations.

Issuing additional shares of our common stock or other equity securities or securities convertible into equity may dilute the economic and voting rights of our existing stockholders or reduce the market price of our common stock or both. Upon liquidation, holders of such debt securities and preferred shares, if issued, and lenders with respect to other borrowings would receive a distribution of our available assets prior to the holders of our common stock. Debt securities convertible into equity could be subject to adjustments in the conversion ratio pursuant to which certain events may increase the number of equity securities issuable upon conversion. Preferred shares, if issued, could have a preference with respect to liquidating distributions or a preference with respect to dividend payments that could limit our ability to pay dividends to the holders of our common stock. Our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, which may adversely affect the amount, timing and nature of our future offerings.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our principal executive offices are located in Cambridge, Massachusetts and consist of approximately 61,000 square feet of leased office space. The space serves as the location of our corporate headquarters and is comprised of office and laboratory space.

We believe that our facilities are adequate for our current and anticipated near-term needs and that suitable additional or substitute space would be available if needed.

Item 3. Legal Proceedings.

From time to time, we may be party to litigation arising in the ordinary course of business. We are currently not subject to any material legal proceedings and, to the best of our knowledge, no material legal proceedings are currently pending or threatened.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock and warrants are listed on Nasdaq under the symbols “CERE” and “CEREW”, respectively. On March 15, 2021, the closing price of our common stock was \$15.77 per share and the closing price of our warrants was \$5.24 per share.

Holders of Our Common Stock

As of March 15, 2021, we had 41 holders of record of our common stock. Certain shares are held in “street” name and accordingly, the number of beneficial owners of such shares is not known or included in the foregoing number. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Dividend Policy

We currently intend to retain all available funds and any future earnings to fund the growth and development of our business. We have never declared or paid any cash dividends on our capital stock. We do not intend to pay cash dividends to our stockholders in the foreseeable future. Investors should not purchase our common stock with the expectation of receiving cash dividends.

Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions, and other factors that our board of directors may deem relevant.

Securities Authorized for Issuance Under Equity Compensation Plans

The information required by Item 5 of Form 10-K regarding equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report.

Recent Sales of Unregistered Securities

The information required by Item 701 of Regulation S-K was previously included in Quarterly Reports on Form 10-Q filed on August 14, 2020 and November 16, 2020.

Use of Proceeds

Of the gross proceeds received from the IPO and the full exercise of the option to purchase additional units, \$149.5 million was placed in ARYA’s trust account. The net proceeds of the IPO were applied to fund the Business Combination and related expenses.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

We did not purchase any of our registered equity securities during the period covered by this Annual Report.

Item 6. Reserved.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis of our financial condition and results of operations together with our audited consolidated financial statements and notes thereto included elsewhere in this Annual Report. Certain of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report, including information with respect to plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the section entitled “Risk Factors,” our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. You should carefully read the section entitled “Risk Factors” to gain an understanding of the material and other risks that could cause actual results to differ materially from our forward-looking statements. Please also see the section entitled “Cautionary Note Regarding Forward-Looking Statements.”

Overview

Introduction

We are a clinical-stage biopharmaceutical company pursuing a targeted approach to neuroscience that combines a deep understanding of disease-related biology and neurocircuitry of the brain with advanced chemistry and CNS target receptor selective pharmacology to discover and design new therapies. We seek to transform the lives of patients through the development of new therapies for neuroscience diseases, including schizophrenia, epilepsy and Parkinson’s disease. Our “ready-made” pipeline of 11 small molecule programs, which includes five clinical-stage product candidates, was developed through over a decade of research and investment by Pfizer and was supported by an initial capital commitment from an affiliate of Bain Capital and a keystone equity position from Pfizer. We are advancing our broad and diverse pipeline with seven clinical trials underway or expected to start by the end of 2021 and up to eight clinical data readouts expected by the end of 2023. We have built a highly experienced team of senior leaders and neuroscience drug developers who combine a nimble, results-driven biotech mindset with the proven expertise of large pharmaceutical company experience and capabilities in drug discovery and development.

On October 27, 2020, ARYA completed the acquisition of Cerevel Therapeutics, Inc., a private company, pursuant to the Business Combination Agreement dated July 29, 2020, as amended on October 2, 2020.

ARYA was incorporated as a Cayman Islands exempted company on February 20, 2020 and was formed for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses.

Cerevel Therapeutics, Inc. was incorporated in Delaware on July 23, 2018, referred to as Inception, under the name Perception Holdco, Inc. which was subsequently changed to Cerevel Therapeutics, Inc. on October 23, 2018.

Our principal operations commenced on September 24, 2018, or the Formation Transaction Date, when Cerevel Therapeutics, Inc., or Old Cerevel, acquired licensed technology to a portfolio of pre-commercial neuroscience assets from Pfizer in exchange for the issuance of Series A-2 Preferred Stock of Old Cerevel and obtained a \$350.0 million equity commitment, or the Equity Commitment, from Bain Investor, an affiliate of Bain Capital, to develop the in-licensed assets in exchange for the issuance of Series A-1 Preferred Stock and Series A Common Stock of Old Cerevel, which we refer to collectively as the Formation Transaction. Bain Investor also received the option to purchase up to an additional 10.0 million shares at \$10.00 per share, subject to Pfizer’s participation rights, or the Share Purchase Option. On the Formation Transaction Date, we received an initial investment of \$115.0 million in equity funding from Bain Investor to begin operations. During 2019 we received an additional investment of \$60.1 million in equity funding from Bain Investor. Bain Investor contributed an additional \$25.0 million in equity financing in July 2020, or the Additional Financing Shares.

Upon the closing of the Business Combination Transaction, Old Cerevel, became a wholly owned subsidiary of ARYA and ARYA was renamed Cerevel Therapeutics Holdings, Inc. and the Stock Purchase Agreement, the Equity Commitment and the Share Purchase Option related to Old Cerevel were terminated. Upon completion of the Business Combination Transaction, and pursuant to the terms of the Business Combination Agreement, the existing shareholders of Old Cerevel exchanged their interests for shares of common stock of Cerevel Therapeutics Holdings, Inc., or New Cerevel. Net proceeds from this transaction totaled approximately \$439.5 million, which included funds held in ARYA’s trust account and the completion of a concurrent private investment in public equity financing, or PIPE Financing, inclusive of the \$25.0 million received from Bain Investor in July 2020.

We accounted for the Business Combination Transaction as a reverse recapitalization which is the equivalent of Old Cerevel issuing stock for the net assets of ARYA, with ARYA treated as the acquired company for accounting purposes. The net assets of ARYA were stated at historical cost with no goodwill or other intangible assets recorded. Reported results from operations included herein prior to the Business Combination are those of Old Cerevel. The shares and corresponding capital amounts and loss per share related to Old Cerevel's outstanding redeemable convertible preferred stock, redeemable convertible common stock, and common stock prior to the Business Combination Transaction have been retroactively restated to reflect the exchange ratio established in the Business Combination Agreement (1.00 share of Old Cerevel for 2.854 shares of New Cerevel), or the Exchange Ratio.

Since Inception, we have incurred significant operating losses and operations have been limited to organizing and staffing the company, business planning, raising capital and performing research and development activities. Prior to the Business Combination Transaction, our operations were funded primarily with the net proceeds received from the issuance of convertible preferred stock, convertible common stock, and common stock. Our net losses totaled \$152.1 million and \$128.4 million for the years ended December 31, 2020 and 2019, respectively, and as of December 31, 2020, we had an accumulated deficit of \$390.9 million. We have not yet generated revenues.

For additional information on our operations, please read Note 1, *Nature of Operations*, to our audited consolidated financial statements included elsewhere in this Annual Report. For additional information on the Business Combination Transaction and the Additional Financing Shares, please read Note 3, *Business Combination*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Business Environment

The biopharmaceutical industry is extremely competitive. We are subject to risks and uncertainties common to clinical-stage companies in the biopharmaceutical industry. These risks include, but are not limited to, the introduction of new products, therapies, standards of care or technological innovations, our ability to obtain and maintain adequate protection for our licensed technology, data or other intellectual property and proprietary rights and compliance with extensive government regulation and oversight. We are also dependent upon the services of key personnel, including our Chief Executive Officer, executive team and other highly skilled employees. Demand for experienced personnel in the pharmaceutical and biotechnology industries is high and competition for talent is intense. Please read the section entitled "*Risk Factors*" for additional information.

We face potential competition from many different sources, including pharmaceutical and biotechnology companies, academic institutions and governmental agencies as well as public and private research institutions. Many of our competitors are working to develop or have commercialized products similar to those we are developing and have considerable experience in undertaking clinical trials and in obtaining regulatory approval to market pharmaceutical products. Our competitors may also have significantly greater financial resources, established presence in the market, expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products. Other smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Risks and Liquidity

Product development is very expensive and involves a high degree of risk. Only a small number of research and development programs result in the commercialization of a product. We will not generate revenue from product sales unless and until we successfully complete clinical development, are able to obtain regulatory approval for and successfully commercialize the product candidates we are developing or may develop. We currently do not have any product candidates approved for commercial sale. In addition, we operate in an environment of rapid change in technology. We are also dependent upon the services of our employees, consultants, third-party CROs, CMOs and other third-party organizations.

Our product candidates, currently under development or that we may develop, will require significant additional research and development efforts, including extensive clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel infrastructure and extensive compliance and reporting capabilities. There can be no assurance that our research and development activities will be successfully completed, that adequate protection for our licensed or developed technology will be obtained and maintained, that products developed will obtain necessary regulatory approval or that any approved products will be commercially viable.

Until such time, if ever, as we can generate substantial product revenue, we will need substantial additional funding to support our continuing operations and pursue our growth strategy, and we may finance our operations through a combination of additional private or public equity offerings, debt financings, collaborations, strategic alliances, marketing, distribution or licensing arrangements with third parties or through other sources of financing. To the extent that we raise additional capital through the sale of private or public equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making acquisitions or capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or drug candidates, or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings or other arrangements when needed, we may be required to delay, limit, reduce or terminate our research, product development or future commercialization efforts, grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves, obtain funds through arrangement with collaborators on terms unfavorable to us or pursue merger or acquisition strategies, all of which could adversely affect the holdings or the rights of our stockholders.

We have incurred significant operating losses since our Inception and expect to continue to incur significant and increasing expenses and operating losses for the foreseeable future. We believe that our available cash resources as of December 31, 2020, of \$383.6 million, will enable us to fund our operating expense and capital expenditure requirements into 2023.

We anticipate that our expenses will increase significantly in connection with our ongoing activities, as we:

- advance our clinical-stage product candidates CVL-231, darigabat, tavapadon, CVL-871 and CVL-936 through clinical development, including as we advance these candidates into later-stage clinical trials;
- advance our preclinical stage product candidates into clinical development including CVL-354 and our PDE4B inhibitor program;
- seek to identify, acquire and develop additional product candidates, including through business development efforts to invest in or in-license other technologies or product candidates;
- hire additional clinical, quality control, medical, scientific and other technical personnel to support our clinical operations;
- expand our operational, financial and management systems and increase personnel to support our operations;
- meet the requirements and demands of being a public company;
- maintain, expand and protect our intellectual property portfolio;
- make milestone, royalty or other payments due under the Pfizer License Agreement and any future in-license or collaboration agreements;
- seek regulatory approvals for any product candidates that successfully complete clinical trials; and
- undertake any pre-commercialization activities to establish sales, marketing and distribution capabilities for any product candidates for which we may receive regulatory approval in regions where we choose to commercialize our products on our own or jointly with third parties.

Impact of the COVID-19 Pandemic

In March 2020 the World Health Organization declared the COVID-19 outbreak a pandemic. The COVID-19 pandemic is evolving, and to date has led to the implementation of various responses, including government-imposed quarantines, travel restrictions and other public health safety measures.

We are closely monitoring the impact of the pandemic of COVID-19 on all aspects of our business, including how it will impact our operations and the operations of our suppliers, vendors and business partners. We have taken steps to identify and mitigate the adverse impacts on, and risks to, our business posed by its spread and actions taken by governmental and health authorities to address this pandemic; however, the spread of COVID-19 has caused us to modify our business practices, including implementing a temporary work-from-home policy for all employees who are able to perform their duties remotely and temporarily restricting all non-essential travel and discouraged employee attendance at industry events and in-person work-related meetings. We expect to continue to take actions as may be required or recommended by government authorities or as we determine are in the best interests of our employees and other business partners in light of COVID-19.

More specifically, the onset of the COVID-19 pandemic caused brief pauses in patient screening and enrollment in our Phase 3 trials of tavapadon for the treatment of Parkinson's (which we subsequently resumed in the second half of 2020), and we remain particularly vigilant about patient safety given the elderly nature of this population. While we have taken measures to revise clinical trial protocols, the ultimate extent to which COVID-19 impacts our business, results of operation and financial condition will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, new information that may emerge concerning the severity of COVID-19 or the effectiveness of actions to contain COVID-19 or treat its impact, among others.

In addition, recurrences or additional waves of COVID-19 cases could cause other widespread or more severe impacts depending on where infection rates are highest. We cannot presently predict the scope and severity of any potential business shutdowns or disruptions, but if we or any of the third parties with whom we engage were to experience prolonged business shutdowns or other disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively affected, which could have a material adverse impact on our business, results of operation and financial condition. The estimates of the impact on our business may change based on new information that may emerge concerning COVID-19 and the actions to contain it or treat its impact and the economic impact on local, regional, national and international markets.

We have not incurred any significant impairment losses in the carrying values of our assets as a result of the pandemic and we are not aware of any specific related event or circumstance that would require us to revise our estimates reflected in our audited consolidated financial statements.

Our Agreements with Licensors and Stockholders

Pfizer License Agreement

In August 2018, we entered into the Pfizer License Agreement pursuant to which we were granted an exclusive, sublicensable, worldwide license under certain Pfizer patent rights, and a non-exclusive, sublicensable, worldwide license under certain Pfizer know-how to develop, manufacture and commercialize certain compounds and products, which currently constitute the entirety of our asset portfolio, in the field of treatment, prevention, diagnosis, control and maintenance of all diseases and disorders in humans, subject to the terms and conditions of the Pfizer License Agreement. Additionally, Pfizer has an exclusive right of first negotiation in the event that we seek to enter into any significant transaction with a third party with respect to a product either globally or in certain designated countries. Significant transactions include exclusive licenses, assignments, sales, exclusive co-promotion arrangements, and other transfers of all commercial rights to a product globally or in certain designated countries, as well as exclusive distribution agreements globally or in certain designated countries.

Under the Pfizer License Agreement, we are solely responsible for the development, manufacture, regulatory approval and commercialization of compounds and products in the field. We are also required to use commercially reasonable efforts to develop and seek regulatory approval for a product that contains or incorporates one of certain scheduled compounds to exert a therapeutic effect on certain targets in each of the following countries: United Kingdom, Germany, France, Italy, Spain, China, Japan and the United States, each a major market country. We are also required to use commercially reasonable efforts to commercialize each such product, if approved, in each major market country in which regulatory approval for such product has been obtained. The Pfizer License Agreement requires Pfizer to transfer certain know-how and data, regulatory filings and materials, inventory, and other materials, records and documents, and provide certain other transitional support and assistance which has been and is expected to be immaterial, to us to facilitate our development, manufacture and commercialization of compounds and products in the field.

As partial consideration for the licensed assets, we issued Pfizer 3,833,333.33 shares of Old Cerevel Series A-2 Preferred Stock with an estimated fair value of \$100.4 million, or \$26.20 per share. We also reimbursed Pfizer for \$11.0 million of direct expenses related to the Pfizer License Agreement, bringing the total consideration to \$111.4 million. Upon the closing of the Business Combination Transaction, Pfizer's 3,833,333.33 shares of Series A-2 Preferred Stock were converted into 26,149,211 shares of common stock after giving effect to the anti-dilution protections and the Exchange Ratio.

Under the terms of the Pfizer License Agreement, we are also required to make regulatory approval milestone payments to Pfizer, ranging from \$7.5 million to \$40.0 million on a compound-by-compound basis, upon the first regulatory approval in the United States for the first product containing or comprised of a given compound, with the amount of the payments determined by which designated group the compound falls into and with each such group generally characterized by the compounds' stage of development. Each such regulatory approval milestone is payable only once per compound. If all of our product candidates included in the table in the section entitled "*Business—Our Pipeline*" are approved in the United States, the total aggregate amount of such regulatory approval milestones payable to Pfizer would be approximately \$220.0 million. To date, no regulatory approval milestone payments were made or became due under this agreement.

In addition, we are required to pay Pfizer commercial milestone payments up to an aggregate of \$170.0 million per product, when aggregate net sales of products under the Pfizer License Agreement in a calendar year first reach various thresholds ranging from \$500.0 million to \$2.0 billion. Each commercial milestone payment is payable only once upon first achievement of the applicable commercial milestone. If all of our product candidates included in the table in the section entitled "*Business—Our Pipeline*" achieves all of the commercial milestones, the total aggregate amount of such commercial milestones payable to Pfizer would total approximately \$1.7 billion. To date, no Pfizer commercial milestone payments were made or became due under this agreement.

We are also required to pay Pfizer tiered royalties on the aggregate net sales during each calendar year, determined on a product-by-product basis, with respect to products under the Pfizer License Agreement, at percentages ranging from the low-single to mid-teens, with the royalty rate determined by which designated group the applicable compound for such product falls into and with each such group generally characterized by the compounds' stage of development, and subject to certain royalty deductions for the expiration of patent, regulatory and data exclusivity, generic competition and third-party royalty payments as set forth in the Pfizer License Agreement. The royalty term expires, on a product-by-product and country-by-country basis, on the later of (1) expiration of all regulatory or data exclusivity for such product in such country, (2) the date upon which the manufacture, use, sale, offer for sale or importation of such product in such country would no longer infringe, but for the license granted in the Pfizer License Agreement, a valid claim of the licensed patents and (3) 12 years following the first commercial sale of such product in such country. To date, no royalty payments were made or became due under this agreement.

Pfizer can terminate the Pfizer License Agreement in its entirety upon our material breach, subject to specified notice and cure provisions. However, if such material breach is with respect to one or more, but not all, products, targets or countries, Pfizer's right to terminate is only with respect to such products, targets or countries. Either party may terminate the Pfizer License Agreement in its entirety upon event of a bankruptcy, insolvency or other similar proceeding of the other party or a force majeure event that prohibits the other party from performing for a period of time. Absent early termination, the term of the Pfizer License Agreement will continue on a country-by-country basis and product-by-product basis, until the expiration of the royalty term for the country and the product. Upon Pfizer's termination of the Pfizer License Agreement for our material breach or either party's termination for bankruptcy, insolvency or other similar proceeding or force majeure, we would grant Pfizer an exclusive, sublicensable, royalty-free, worldwide, perpetual license under certain intellectual property we develop during the term of the Pfizer License Agreement. In addition, we would negotiate a transition plan with Pfizer that would address, among other things, the transfer of know-how and data, regulatory approvals and filings and materials, inventory and other materials, records and documents, and the provision of certain other transitional support and assistance for the terminated products, targets or countries.

For additional information on our Pfizer License Agreement, please read Note 6, *Pfizer License Agreement*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Equity Commitment

In connection with the Formation Transaction, we entered into a Stock Purchase Agreement with Pfizer and Bain Investor pursuant to which Bain Investor contributed \$115.0 million in exchange for 6,900,000 shares of Old Cerevel Series A-1 Preferred Stock and 4,600,000 shares of Old Cerevel Series A Common Stock. Additionally, Bain Investor had the ability, pursuant to conditions set forth in more detail below, purchase a combination of additional shares of Series A-1 Preferred Stock and Series A Common Stock at a price of \$10.00 per share. The Stock Purchase Agreement, among other things, provided that if we have not received \$350.0 million in aggregate gross cash proceeds in exchange for equity interests, which such amount includes the proceeds received in the initial financing and subsequent financings and is referred to as the Financing Threshold, by September 24, 2022, Bain Investor would have been required to purchase that amount of shares of our common stock such that the Financing Threshold would have been met:

- if any time, prior to the Financing Threshold having been met, our cash balance was equal to or less than \$10.0 million, Bain Investor would have been required to purchase an amount of additional shares of our Series A-1 Preferred Stock and Series A Common Stock that allowed us to maintain a reasonable level of cash to fund our operations in accordance with the previously agreed development plan for at least six months; and
- until the time the Financing Threshold was met, Bain Investor had the right to purchase up to that amount of shares of Series A-1 Preferred Stock and Series A Common Stock at a purchase price of \$10.00 per share that results in the Financing Threshold having been met.

In June 2019, pursuant to the Stock Purchase Agreement, Bain Investor contributed an additional \$0.1 million in exchange for additional shares of Series A-1 Preferred Stock and shares of Series A Common Stock. In December 2019, pursuant to the Stock Purchase Agreement, Bain Investor contributed an additional \$60.0 million in exchange for additional shares of Series A-1 Preferred Stock and shares of Series A Common Stock. In July 2020, pursuant to the Stock Purchase Agreement, Bain Investor contributed an additional \$25.0 million in exchange for additional shares of Series A-1 Preferred Stock and shares of Series A Common Stock. As a result of these transactions, the remaining Equity Commitment as of September 30, 2020, was \$149.9 million.

Upon closing of the Business Combination Transaction, the Equity Commitment was terminated and the remaining Equity Commitment of \$149.9 million was considered satisfied.

For additional information on the Equity Commitment, please read Note 7, *Equity Commitment and Share Purchase Option*, to our audited consolidated financial statements included elsewhere in this Annual Report. For additional information on the Business Combination Transaction, please read Note 3, *Business Combination*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Components of Operating Results

Revenues

We have not generated any revenues since our Inception and do not expect to generate any revenues from the sale of products in the near future, if at all. If our development efforts for our current product candidates or additional product candidates that we may develop in the future are successful and can be commercialized, we may generate revenue in the future from product sales. Additionally, we may enter into collaboration and license agreements from time to time that provide for certain payments due to us. Accordingly, we may generate revenue from payments from such collaboration or license agreements in the future.

Research and Development

We support our drug discovery and development efforts through the commitment of significant resources to our preclinical and clinical development activities. Our research and development expense includes:

- employee-related expenses, consisting of salaries, benefits and equity-based compensation for personnel engaged in our research and development activities;
- expenses incurred in connection with the preclinical and clinical development of our product candidates, including costs incurred under agreements with clinical research organizations, or CROs, investigative clinical trial sites and consultants and other third-party organizations that conduct research and development activities on our behalf;
- costs associated with preclinical studies and clinical trials, including research materials;

- materials and supply costs associated with the manufacture of drug substance and drug product for preclinical testing and clinical trials;
- costs related to regulatory compliance requirements; and
- certain indirect costs incurred in support of overall research and development activities, including facilities, depreciation and technology expenses.

We expense research and development expenses as incurred. Payments we make for research and development services prior to the services being rendered are recorded as prepaid assets in our consolidated balance sheets and are expensed as the services are provided. We estimate and accrue the value of goods and services received from CROs, CMOs and other third parties each reporting period based on estimates of the level of services performed and progress in the period when we have not received an invoice from such organizations. When evaluating the adequacy of accrued liabilities, we analyze progress of the studies or clinical trials, including the phase of completion of events, invoices received and contracted costs. We reassess and adjust our accruals as actual costs become known or as additional information becomes available. Our historical accrued estimates have not been materially different from actual costs.

Our external research and development expenses for our clinical stage product candidates are tracked on a program-by-program basis and consist primarily of fees, reimbursed materials and other costs paid to consultants, contractors, CROs and CMOs. External research and developments costs that directly support our discovery activities and preclinical programs are classified within other research and development programs. Program costs for the periods presented do not reflect an allocation of expenses associated with personnel costs, equity-based compensation expense, activities that benefit multiple programs or indirect costs incurred in support of overall research and development, such as technology and facilities-related costs.

We expect that our research and development expenses will increase substantially in connection with our planned preclinical and clinical development activities both in the near-term and beyond as we continue to invest in activities to develop our product candidates and preclinical programs and as certain product candidates advance into later stages of development. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size, scope and duration of later-stage clinical trials. Furthermore, the process of conducting the necessary clinical trials to obtain regulatory approval is costly and time-consuming, and the successful development of our product candidates is highly uncertain. As a result, we cannot accurately estimate or know the nature, timing and costs that will be necessary to complete the preclinical and clinical development for any of our product candidates or when and to what extent we may generate revenue from the commercialization and sale of any of our product candidates or achieve profitability.

The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors that include:

- per patient trial costs;
- the number of patients that participate in the trials;
- the number of sites included in the trials;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the duration of patient follow-up; and
- the efficacy and safety profile of our product candidates.

Changes in any of these assumptions could significantly impact the cost and timing associated with the development of our product candidates. Additionally, future competition and commercial and regulatory factors beyond our control may also impact our clinical development programs and plans.

General and Administrative

We expense general and administrative costs as incurred. General and administrative expenses consist primarily of salaries, benefits, equity-based compensation and outsourced labor for personnel in executive, finance, human resources, legal and other corporate administrative functions. General and administrative expenses also include legal fees incurred relating to corporate and patent matters, professional fees incurred for accounting, auditing, tax and administrative consulting services, insurance costs, facilities and depreciation expenses.

We estimate and accrue for services provided by third parties related to the above expenses by monitoring the status of services provided and receiving estimates from our service providers. We reassess and adjust our accruals as actual costs become known or as additional information becomes available.

We expect our general and administrative expenses will increase over the next several years as we increase our headcount to support the continued development of our product candidates. We also anticipate that we will incur increased costs and other expenses associated with being a public company and as we continue to build general corporate infrastructure.

Interest Income, Net

Interest income, net primarily consists of interest earned on our cash, cash equivalents and restricted cash.

Other Income (Expense), Net

Other income (expense), net primarily consists of gains (losses) on the fair value remeasurement of the Equity Commitment and Share Purchase Option, which were terminated upon the completion of the Business Combination Transaction. Other income (expense), net also includes amounts for other miscellaneous income and expense unrelated to our core operations.

The Equity Commitment and Share Purchase Option were free-standing financial instruments, which were recorded at their fair value on the Formation Transaction Date. We revalued these instruments each reporting period and recorded increases or decreases in their respective fair value as an adjustment to other income (expense), net in our consolidated statements of operations and comprehensive loss.

Changes in the fair value of these financial instruments resulted from changes to one or multiple inputs, including adjustments to the discount rates and expected volatility and dividend yield as well as changes in the amount and timing of the anticipated future funding required to settle these instruments and the fair value of our preferred and common stock that were expected to be exchanged to complete that additional funding. Discount rates in our valuation models represent a measure of the credit risk associated with settling the financial instruments. The expected dividend yield was assumed to be zero as we have never paid dividends, nor do we have current plans to do so in the future. Significant judgment was employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period.

Income Taxes Benefit (Provision), Net

To date, we have not recorded any significant amounts related to income tax expense, we have not recognized any reserves related to uncertain tax positions, nor have we recorded any income tax benefits for net operating losses incurred to date or for our research and development tax credits.

We account for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements or our tax returns. Deferred tax assets and liabilities are determined based on difference between the financial statement carrying amounts and tax bases of existing assets and liabilities and for loss and credit carryforwards, which are measured using the enacted tax rates and laws in effect in the years in which the differences are expected to reverse. The realization of our deferred tax assets is dependent upon the generation of future taxable income, the amount and timing of which are uncertain. Valuation allowances are provided, if, based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. As of December 31, 2020 and 2019, we continue to maintain a full valuation allowance against all of our deferred tax assets based on our evaluation of all available evidence.

We file income tax returns in the U.S. federal tax jurisdiction and state jurisdictions and may become subject to income tax audit and adjustments by related tax authorities. Our initial tax return period for U.S. federal income taxes was the 2018 period. We currently remain open to examination under the statute of limitations by the Internal Revenue Service and state jurisdictions for this period and for the 2019 tax year. We record reserves for potential tax payments to various tax authorities related to uncertain tax positions. The nature of uncertain tax positions is subject to significant judgment by management and subject to change, which may be substantial. These reserves are based on a determination of whether and how much a tax benefit taken by us in our tax filings or positions is more likely than not to be realized following the resolution of any potential contingencies related to the tax benefit. We develop our assessment of uncertain tax positions, and the associated cumulative probabilities, using internal expertise and assistance from third-party experts. As additional information becomes available, estimates are revised and refined. Differences between estimates and final settlement may occur resulting in additional tax expense. Potential interest and penalties associated with such uncertain tax positions is recorded as a component of our income taxes benefit (provision), net. To date, no amounts are being presented as an uncertain tax position.

Results of Operations

The following table summarizes our results of operations for the years ended December 31, 2020 and 2019:

| <i>(In thousands)</i> | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 | Change |
|-------------------------------------|---|---|--------|
| Operating expenses: | | | |
| Research and development | \$ 103,303 | \$ 50,294 | 105% |
| General and administrative | 45,813 | 33,169 | 38% |
| Total operating expenses | 149,116 | 83,463 | 79% |
| Loss from operations | (149,116) | (83,463) | 79% |
| Interest income, net | 224 | 1,552 | (86%) |
| Other income (expense), net | (3,274) | (46,433) | (93%) |
| Loss before income taxes | (152,166) | (128,344) | 19% |
| Income tax benefit (provision), net | 24 | (45) | (153%) |
| Net loss | \$ (152,142) | \$ (128,389) | 19% |

Research and Development

The following table summarizes the components of research and development expense for the years ended December 31, 2020 and 2019:

| <i>(In thousands)</i> | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 | Change |
|---|---|---|--------|
| Tavapadon | \$ 31,678 | \$ 16,973 | 87% |
| Darigabat | 10,984 | 8,174 | 34% |
| CVL-231 | 16,360 | 2,646 | 518% |
| CVL-936 | 2,110 | 2,201 | (4%) |
| CVL-871 | 1,003 | — | 100% |
| Other research and development programs | 6,304 | 1,224 | 415% |
| Unallocated | 8,608 | 3,587 | 140% |
| Personnel costs | 23,017 | 12,887 | 79% |
| Equity-based compensation | 3,239 | 2,602 | 24% |
| Total research and development | \$ 103,303 | \$ 50,294 | 105% |

For 2020 compared to 2019, the increase in research and development expense was primarily due to an increase in program costs related to advancing our pipeline and increased personnel costs, including equity-based compensation, as well as an increase in unallocated costs as we grew our organization. The increase in unallocated costs is primarily related to an increase in professional services and other indirect research and development costs reflecting our increased investment in technology, increased consulting and professional fees for cross-program support activities and other overhead expenses.

General and Administrative

| <i>(In thousands)</i> | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 | Change |
|----------------------------|---|---|--------|
| General and administrative | \$ 45,813 | \$ 33,169 | 38% |

For 2020 compared to 2019, the increase in general and administrative expense was primarily due to increased personnel costs, including equity-based compensation, higher facility-related costs as we grew our organization, as well as certain non-recurring charges recognized in connection with our Business Combination Transaction.

The increase in facility-related costs is primarily associated with the lease for our headquarters in Cambridge, Massachusetts. General and administrative expense for 2020 includes a \$3.0 million charge recognized in October 2020 related to the payment of remaining management fees due pursuant to the Management Agreement with affiliate entities of Bain Investor upon the completion of the Business Combination Transaction.

General and administrative expense for 2020 also includes a \$2.5 million charge related to the write-off of deferred financing costs directly associated with our previously anticipated IPO and other financing activities that were abandoned in June 2020 upon signing of the term sheet for our Business Combination Transaction.

Interest income, net

| <i>(In thousands)</i> | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 | Change |
|-----------------------|---|---|--------|
| Interest income, net | \$ 224 | \$ 1,552 | (86%) |

Interest income, net primarily consists of interest earned on our cash, cash equivalents and restricted cash. The decrease in interest income, net, reflects a reduction in market interest rates and lower average comparative cash, cash equivalents and restricted cash balances.

Other Income (Expense), Net

The following table summarizes other income (expense), net for the years ended December 31, 2020 and 2019:

| <i>(In thousands)</i> | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 | Change |
|---|---|---|--------|
| Loss on fair value remeasurement of Equity Commitment | \$ (3,530) | \$ (51,562) | (93%) |
| Gain on fair value remeasurement of Share Purchase Option | 260 | 5,120 | (95%) |
| Other, net | (4) | 9 | (144%) |
| Other income (expense), net | \$ (3,274) | \$ (46,433) | (93%) |

For 2020 compared to 2019, other income (expense), net, primarily reflects the net changes related to the fair value remeasurement of the Equity Commitment and the Share Purchase Option.

For 2020, the change in fair value remeasurement of Equity Commitment reflects a \$5.5 million loss recognized on the partial settlement of the Equity Commitment liability in July 2020 upon the Bain Investor contributing an additional \$25.0 million in exchange for the issuance of convertible preferred and convertible common stock as well as a net gain of \$2.0 million related to the fair value remeasurement of the Equity Commitment through its termination.

For 2019, the change in the fair value remeasurement of Equity Commitment reflects the loss recognized upon the partial settlement of the Equity Commitment liability upon the issuance of Series A-1 Preferred Stock and Series A Common Stock in December 2019 as well as changes in fair value remeasurement of Equity Commitment and Share Purchase Option also reflect changes in the probability of exercise and timing of future expected funding required in settlement of the Equity Commitment and Share Purchase Option and increases in the fair value of our preferred and common stock expected to be exchanged for that additional funding.

For additional information on our Equity Commitment and Share Purchase Option, please read Note 7, *Equity Commitment and Share Purchase Option*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Liquidity and Capital Resources

Sources of Liquidity and Capital

We have incurred significant operating losses since our Inception and we expect to continue to incur significant and increasing expenses and operating losses for the foreseeable future. Our net losses totaled \$152.1 million and \$128.4 million for the years ended December 31, 2020 and 2019, respectively, and as of December 31, 2020, we had an accumulated deficit of \$390.9 million. We have not yet generated revenues.

Prior to the Business Combination, our operations were funded primarily from the issuance of convertible preferred stock, convertible common stock and common stock, as described above in Note 1, *Nature of Operations*, to our audited consolidated financial statements included elsewhere in this Annual Report. Upon the closing of the Business Combination Transaction in October 2020, we received net proceeds totaling approximately \$439.5 million.

Our cash and cash equivalents totaled \$383.6 million as of December 31, 2020. Until required for use in our business, we typically invest our cash in investments that are highly liquid, readily convertible to cash with original maturities of 90 days or less at the date of purchase. We attempt to minimize the risks related to our cash and cash equivalents by maintaining balances in accounts only with accredited financial institutions and, consequently, we do not believe we are subject to unusual credit risk beyond the normal credit risk associated with ordinary commercial banking relationships.

Future Funding Requirements

Our primary use of cash is to fund operating expenses, primarily related to our research and development activities. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable, accrued expenses and prepaid expenses.

We have incurred significant operating expenses since our Inception, and we expect to continue to incur significant and increasing expenses and operating losses for the foreseeable future. While we believe that our cash resources, inclusive of funds received upon closing of our Business Combination Transaction, will enable us to fund our operating expense and capital expenditure requirements into 2023, we will require additional capital to meet operational needs and capital requirements for clinical trials, other research and development expenditures, and business development activities.

Our future funding requirements will depend on many factors, including:

- the scope, progress, results and costs of researching and developing our current product candidates, as well as other additional product candidates we may develop and pursue in the future;
- the timing of, and the costs involved in, obtaining marketing approvals for our product candidates and any other additional product candidates we may develop and pursue in the future;
- the number of future product candidates that we may pursue and their development requirements;

- subject to receipt of regulatory approval, the costs of commercialization activities for our product candidates, to the extent such costs are not the responsibility of any future collaborators, including the costs and timing of establishing product sales, marketing, distribution and manufacturing capabilities;
- subject to receipt of regulatory approval, revenue, if any, received from commercial sales of our product candidates or any other additional product candidates we may develop and pursue in the future;
- the achievement of milestones that trigger payments under the Pfizer License Agreement;
- the royalty payments due under the Pfizer License Agreement;
- the extent to which we in-license or acquire rights to other products, product candidates or technologies;
- our ability to establish collaboration arrangements for the development of our product candidates on favorable terms, if at all;
- our headcount growth and associated costs as we expand our research and development and establish a commercial infrastructure;
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights, including enforcing and defending intellectual property related claims; and
- the costs of operating as a public company.

Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the total amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials and preclinical studies.

Our expectations with respect to our ability to fund current planned operations is based on estimates that are subject to risks and uncertainties. Our operating plan may change as a result of many factors currently unknown to us and there can be no assurance that the current operating plan will be achieved in the time frame anticipated by us, and we may need to seek additional funds sooner than planned. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate certain of our research, product development or future commercialization efforts, obtain funds through arrangements with collaborators on terms unfavorable to us, or pursue other merger or acquisition strategies, all of which could adversely affect the holdings or the rights of our stockholders.

For additional information on risks associated with our substantial capital requirements, please read the section entitled “*Risk Factors*” included elsewhere in this Annual Report.

Warrants

ARYA issued public warrants and private placement warrants (collectively, the warrants) in its IPO in June 2020. The warrants will become exercisable beginning on June 9, 2021. Warrants may only be exercised for a whole number of shares. No fractional shares will be issued upon exercise of the warrants. Each whole warrant entitles the holder to purchase one share of common stock at an exercise price of \$11.50 per share.

We will use our commercially reasonable efforts to maintain the effectiveness of our registration statement and a current prospectus relating to those common shares issuable upon exercise of the warrants until the warrants expire or are redeemed, as specified in the warrant agreement. If the common stock at the time of any exercise of a warrant is not listed on a national securities exchange, we may, at our option, require holders of the warrants who exercise their warrants to do so on a “cashless basis.” We are not required to file or maintain in effect a registration statement. In no event will the company be required to net cash settle any warrant.

Except as described in the warrant agreement, the private placement warrants have terms and provisions that are identical to those of the public warrants. If the private placement warrants are held by holders other than the Sponsor or its permitted transferees, the private placement warrants will be redeemable by us and exercisable by the holders on the same basis as the public warrants.

Once the warrants become exercisable, we may call the warrants for redemption:

- in whole and not in part;
- upon not less than 30 days’ prior written notice of redemption to each warrant holder; and

- if, and only if, the closing price of our common stock equals or exceeds \$18.00 per share (as adjusted for share splits, share capitalizations, reorganizations, recapitalizations and the like) for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date on which notice of the redemption is given to the warrant holder.

If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws. If we call the public warrants for redemption, as described above, we will have the option to require any holder that wishes to exercise the public warrants to do so on a “cashless basis,” as described in the warrant agreement.

Commencing ninety days after the warrants become exercisable, we may redeem the outstanding warrants:

- in whole and not in part;
- at \$0.10 per warrant upon a minimum of 30 days’ prior written notice of redemption, provided that holders will be able to exercise their warrants on a cashless basis prior to redemption and receive that number of shares determined by reference to the table included in the warrant agreement, based on the redemption date and the “fair market value” of our shares of common stock, except as otherwise described below;
- if, and only if, the closing price of the shares of common stock equals or exceeds \$10.00 per share (as adjusted for share subdivisions, share dividends, reorganizations, reclassifications, recapitalizations and the like) on the trading day before we send the notice of redemption to the warrant holders;
- if, and only if, the private placement warrants are also concurrently called for redemption on the same terms as the outstanding public warrants, as described above; and
- if, and only if, there is an effective registration statement covering the issuance of common stock issuable upon exercise of the warrants and a current prospectus relating thereto available throughout the 30-day period after written notice of redemption is given.

The warrants will expire five years after the completion of the Business Combination Transaction, or earlier upon redemption or liquidation.

Working Capital

The following table summarizes our total working capital, defined as current assets less current liabilities as of December 31, 2020 and 2019:

| <i>(In thousands)</i> | As of December 31, | | Change |
|-----------------------|--------------------|-----------|--------|
| | 2020 | 2019 | |
| Current assets | \$ 390,560 | \$ 87,077 | 349% |
| Current liabilities | (29,548) | (14,876) | 99% |
| Total working capital | \$ 361,012 | \$ 72,201 | 400% |

The change in working capital at December 31, 2020, from December 31, 2019, reflects net a net increase in total current assets of \$303.5 million partially off-set by a net increase in total current liabilities of \$14.7 million.

The net increase in total current assets was primarily driven by a net increase in our cash and cash equivalents following the completion of the Business Combination Transaction, partially offset by \$117.8 million of net cash flows used in operations and \$18.9 million of cash used for the purchase of property and equipment.

The net increase in current liabilities was primarily driven by an increase in accounts payable and increases in accrued expenses and other current liabilities related to compensation, external research and development services and construction-in-progress accruals related to the build-out of our Cambridge, Massachusetts headquarters.

Cash Flows

The following table summarizes our sources and uses of cash for the years ended December 31, 2020 and 2019:

| <i>(In thousands)</i> | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 | Change |
|--|---|---|-----------------|
| Net cash flows used in operating activities | \$ (117,802) | \$ (70,720) | 67% |
| Net cash flows used in investing activities | (18,892) | (1,099) | 1,619% |
| Net cash flows provided by financing activities | 440,835 | 60,058 | 634% |
| Net increase (decrease) in cash and cash equivalents | <u>\$ 304,141</u> | <u>\$ (11,761)</u> | <u>(2,686%)</u> |

Cash flows used in Operating Activities

Net cash flows used in operating activities represent the cash receipts and disbursements related to all of our activities other than investing and financing activities. We expect cash provided by financing activities will continue to be our primary source of funds to finance operating needs and capital expenditures for the foreseeable future.

Net cash flows used in operating activities is derived by adjusting our net loss for:

- non-cash operating items such as depreciation and amortization, non-cash rent expense, equity-based compensation, impairments and write-offs of deferred charges;
- changes in operating assets and liabilities reflect timing differences between the receipt and payment of cash associated with transactions and when they are recognized in results of operations; and
- changes in the fair value remeasurement of the Equity Commitment and the Share Purchase Option.

For 2020, cash used in operating activities primarily reflects our net loss for the period of \$152.1 million, adjusted for net non-cash charges totaling \$16.6 million and a net change of \$17.7 million in our net operating assets and liabilities. Our non-cash charges primarily consisted of \$10.5 million of equity-based compensation expense, net losses totaling \$3.3 million recognized in relation to the Equity Commitment and Share Purchase Option and a \$2.5 million charge related to the write-off of deferred financing costs directly associated with our previously anticipated IPO and other financing activities that were abandoned in June 2020 upon signing of the term sheet for our Business Combination Transaction. The net change in our operating assets and liabilities was primarily due to an increase in account payable and accrued expenses and other liabilities associated with compensation, external research and development services and an increase in operating lease liabilities resulting from landlord reimbursement for tenant improvements.

For 2019, net cash used in operating activities primarily reflected our net loss for the period of \$128.4 million, adjusted by non-cash charges totaling \$57.3 million and a net change of \$0.3 million in relation to our net operating assets and liabilities. Our non-cash charges primarily consisted of net losses totaling \$46.4 million recognized related to the Equity Commitment and Share Purchase Option, \$8.3 million of equity-based compensation expense and \$2.4 million of non-cash rent expense. The net change in our operating assets and liabilities was primarily due to an increase in accounts payable and accrued expenses and other current liabilities, partially offset by an increase in prepaid expenses, other current assets and other assets.

Cash flows used in Investing Activities

For 2020, cash used in investing activities reflected \$18.9 million used for purchases of property and equipment, primarily related to the build-out of our Cambridge, Massachusetts headquarters.

For 2019, cash used in investing activities reflected \$1.1 million used for purchases of property and equipment.

Cash flows provided by Financing Activities

For 2020, net cash provided by financing activities totaled \$440.8 million, which primarily consisted of net proceeds from the completion of the Business Combination Transaction.

For 2019, net cash provided by financing activities totaled \$60.1 million, which primarily consisted of net proceeds from the issuance of Series A-1 Preferred Stock and Series A Common Stock.

Management Agreement

In connection with the initial financing, on the Formation Transaction Date, Old Cerevel entered into an agreement with Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP, which are entities related to Bain Investor, whereby such entities provided certain management services to us for a fee of \$1.0 million per year, paid in quarterly, non-refundable installments, or the Management Agreement.

This agreement obligated the company to pay such entities, in the aggregate, a \$5.0 million fee upon the completion of a qualified public offering or change of control transaction, less any quarterly fees previously paid to such entities. Upon completion of the Business Combination Transaction, described in Note 3, *Business Combination*, of our audited consolidated financial statements included elsewhere in this Annual Report, we paid the remaining approximately \$3.0 million of management fees payable under the Management Agreement and no additional fees remain payable pursuant to this agreement. Inclusive of this final payment made under the Management Agreement, we incurred management fees to Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP totaling \$3.8 million and \$1.0 million during the years ended December 31, 2020 and 2019, respectively.

Following the closing of the Business Combination Transaction, we entered into a new management agreement with Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP providing for the expense reimbursement and indemnification of such entities.

Contractual Obligations and Other Commitments

Our contractual obligations primarily consist of our obligations under non-cancellable operating leases, contracts and other purchase obligations. We did not have any debt obligations as of December 31, 2020 or 2019, respectively.

Our most significant contracts relate to agreements with CROs for clinical trials and preclinical studies, CMOs and other service providers for operating purposes, which we enter into in the normal course of business. We have not included these payments in the table of contractual obligations below since these contracts are generally cancelable at any time by us following a certain period after notice and therefore, we believe that our non-cancelable obligations under these agreements are not material. In addition, we have obligations with respect to potential future royalties payable, contingent development, regulatory and commercial milestone payments and amounts related to uncertain tax positions. We have not included these amounts in the table of contractual obligations below, because the timing and amount of such obligations are unknown or uncertain as of December 31, 2020. For additional information on potential royalties and milestone payments payable to Pfizer, see “*Our Agreements with Licensors and Stockholders—Pfizer License Agreement*.”

The following table summarizes our contractual obligations as of December 31, 2020, excluding amounts related to CROs and CMOs, potential future royalties payable, contingent development, regulatory and commercial milestone payments and amounts related to uncertain tax positions:

| (In thousands) | Payments Due by Period | | | | |
|-----------------------------------|------------------------|--------------|--------------|-------------------|-----------|
| | Less than 1 year | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| Operating lease obligations(1) | \$ 5,737 | \$ 12,014 | \$ 12,745 | \$ 29,085 | \$ 59,581 |
| Purchase and other obligations(2) | 5,716 | — | — | — | \$ 5,716 |
| Total contractual obligations | \$ 11,453 | \$ 12,014 | \$ 12,745 | \$ 29,085 | \$ 65,297 |

- (1) Amounts in the table above reflect payments due under our lease for our current headquarters in Cambridge, Massachusetts, which expires in 2030. Amounts reflected within the table above detail future minimum rental commitments under non-cancelable operating leases as of December 31 for each of the periods presented. In addition to the minimum rental commitments, these leases may require us to pay additional amounts for taxes, insurance, maintenance and other operating expenses.

- (2) Purchase and other obligations due in less than 1 year, include approximately \$4.5 million of expenditures expected to be incurred related to the build out of our corporate headquarters. For additional information related to our lease for our future corporate headquarters in Cambridge, Massachusetts, please read Note 10, *Leases*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Contract Research and Manufacturing Organizations

As of December 31, 2020 and 2019, we recorded accrued expenses of approximately \$7.1 million and \$2.2 million, respectively, in our consolidated balance sheets for expenditures incurred by CROs and CMOs.

Tax Related Obligations

To date, we have not recognized any reserves related to uncertain tax positions. As of December 31, 2020 and 2019, we had no accrued interest or penalties related to uncertain tax positions.

Off-balance sheet arrangements

We have not entered into any off-balance sheet arrangements and do not have holdings in any variable interest entities.

Critical Accounting Policies and Estimates

This management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP.

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires us to make estimates, judgments and assumptions that may affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Other significant accounting policies are outlined in Note 4, *Summary of Significant Accounting Policies*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Fair Value Measurements

Certain of our assets and liabilities are carried at fair value under U.S. GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three categories:

- Level 1** Quoted prices in active markets for identical assets or liabilities.
- Level 2** Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3** Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies, and similar techniques.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by us in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying amounts reflected in our consolidated balance sheets for cash, cash equivalents and restricted cash, prepaid expenses and other current assets, accounts payable and accrued expenses approximate their fair values, due to their short-term nature.

Our cash, cash equivalents and restricted cash are comprised of funds held in an exchange traded money market fund, are measured at fair value on a recurring basis using quoted market prices for that fund and are classified as Level 1. As of December 31, 2020, we held \$387.8 million in money market funds (Level 1), inclusive of restricted cash balances, with no unrealized gains or losses. As of December 31, 2019, we held \$83.7 million in money market funds (Level 1), inclusive of restricted cash balances, with no unrealized gains or losses.

As of December 31, 2019, the Equity Commitment and Share Purchase Option approximated their fair value based on Level 3 inputs. In October 2020, the Equity Commitment and Share Purchase Option were terminated upon completion of the Business Combination Transaction. Immediately prior to the closing of the Business Combination Transaction, the closing of this transaction was considered certain to occur which reduced the fair value of the remaining Equity Commitment and Share Purchase Option to zero and as a result, we recognized a gain of \$7.8 million and \$0.9 million in relation to these instruments, respectively. We do not have any other financial or non-financial assets or liabilities that should be recognized or disclosed at fair value on a recurring basis at December 31, 2020 or 2019.

Fair Value of Equity Commitment and Share Purchase Option

The Equity Commitment and Share Purchase Option were free-standing financial instruments that may have required us to transfer equity upon settlement or exercise, respectively, and were recorded at fair value on the Formation Transaction Date. The fair value of each financial instrument on the Formation Transaction Date was allocated to the Series A-1 Preferred Stock, Series A-2 Preferred Stock and Series A Common Stock.

We utilized a hybrid methodology that combines both an income approach and a market approach, which incorporated a probability weighted expected return (PWERM) related to pre-IPO funding, to estimate the fair value of our Equity Commitment and Share Purchase Option during 2019 and throughout 2020, until the Equity Commitment and Share Purchase Option were terminated upon completion of the Business Combination Transaction. Under this methodology, these financial instruments were valued based upon a probability weighted-average of two separate models prepared following an income approach and a market approach. The fair value of the funding obligation under each model was estimated as the net present value of the anticipated future funding, reduced by the value of the additional shares of preferred and common stock that would be exchanged for future funding.

We revalued these financial instruments each reporting period, until the Equity Commitment and Share Purchase Option were terminated, utilizing models that are sensitive to changes in the unobservable inputs such as changes in the estimated future funding dates or fair value of our stock. Changes in the fair value of these instruments resulted from changes to one or multiple inputs, including adjustments to the discount rates and expected volatility and dividend yield as well as changes in the amount and timing of the anticipated future funding required in settlement of the Equity Commitment and Share Purchase Option and the fair value of our preferred and common shares expected to be exchanged for that additional funding. Discount rates in our valuation models represented a measure of the credit risk associated with settling the financial instruments. The expected dividend yield was assumed to be zero as we have never paid dividends and do not have current plans to pay any dividends on our common stock. Significant judgment was employed in determining these assumptions as of the Formation Transaction Date and for each subsequent period.

Changes in fair value of the Equity Commitment and Share Purchase Option were recognized as a component of other income (expense), net in our consolidated statements of operations and comprehensive loss. We classified the fair value of the remaining Equity Commitment and the fair value of the Share Purchase Option as an asset or liability within our consolidated balance sheets. Immediately prior to the closing of the Business Combination Transaction, these financial instruments were adjusted to their final fair value of zero and were terminated upon Closing.

Equity-Based Compensation

We determine the fair value of each award issued under our equity-based compensation plan on the date of grant. We recognize compensation expense for service-based awards on a straight-line basis over the requisite service period which generally approximates the vesting term. For service-based awards with performance or market conditions, we recognize compensation expense on a straight-line basis over the requisite service period for each separate vesting portion of the award, with the amount of compensation expense recognized at any date at least equaling the portion of the grant-date fair value of the award that is vested at that date. Equity-based compensation expense for awards with performance conditions are recognized to the extent we determine that the condition is considered probable to be met. We reassess the probability of achieving these performance conditions each reporting period until the date such conditions are settled. Cumulative adjustments are recorded each period to reflect the estimated outcome of the performance condition.

We elected to account prospectively for forfeitures as they occur rather than apply an estimated forfeiture rate to equity-based compensation expense. We classify equity-based compensation expense in our consolidated statements of operations and comprehensive loss in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified, as applicable.

Determination of the Fair Value – Preferred and Common Stock

Prior to the completion of the Business Combination Transaction, given the absence of an active market for our common stock, we were required to estimate the fair value of our common stock at the time of each grant of an equity-based award. We have utilized various valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants' Technical Practice Aid, Valuation of Privately-Held Company Equity Securities Issued as Compensation, to estimate the fair value of our common stock. Each valuation methodology includes estimates and assumptions that require judgment. These estimates and assumptions included a number of objective and subjective factors in determining the value of our common stock at each grant date, including the following factors:

- prices paid for our convertible preferred stock and common stock, and the rights, preferences, and privileges associated with our convertible preferred stock and common stock;
- the progress of our research and development efforts, including the status of preclinical studies and planned clinical trials for our investigational medicines;
- our stage of development and projected growth;
- the fact that the grants of equity-based awards involved illiquid securities in a private company;
- the likelihood of achieving a liquidity event for the common stock underlying the equity-based awards, such as an initial public offering, or IPO, given prevailing market conditions;
- the analysis of IPOs and the market performance of similar companies in the biotechnology and pharmaceutical industries;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors; and
- any external market conditions affecting the biotechnology industry, and trends within the biotechnology industry.

We used a hybrid methodology that combines both an income approach and a market approach to estimate the business enterprise value and our total equity value to calculate the fair value of our preferred stock and common stock during 2019 and throughout 2020, until completion of the Business Combination Transaction. A probability-weighted discounted cash flow analysis was first prepared reflecting multiple scenarios for future outcomes associated with the acquired product candidates in order to estimate the cash flows associated with estimated liquidity events (i.e., an IPO). We also used a PWERM to determine the fair value of pre-IPO funding scenarios. We then used a market approach to estimate the value as of each potential date of liquidity, resulting in an estimate of the total equity value, including the value of planned future funding. The value of the preferred stock and common stock was then estimated using an option pricing method, allocating total equity value based on an assumed future liquidity date, the liquidation preference of the preferred stock and the assumed funding in each scenario. Each of these scenarios was probability-weighted based on the expected outcomes to arrive at a final estimated fair value per share of the common stock.

Subsequent to the closing of the Business Combination Transaction, our board of directors determines the fair value of each share of common stock underlying stock-based awards based on the closing price of our common stock as reported by Nasdaq on the date of grant.

We believe our methodologies are reasonable based upon our internal peer company analyses and further supported by transactions involving our preferred stock. If different assumptions had been made, equity-based compensation expense, consolidated net loss and consolidated net loss per share could have been significantly different.

For financial reporting purposes, we performed common stock valuations, with the assistance of a third-party specialist, at various dates, which resulted in valuations of Old Cerevel common stock, unadjusted by the Exchange Ratio, of \$9.15 per share as of March 31, 2019, \$9.45 per share as of June 30, 2019, \$11.25 per share as of September 30, 2019, \$10.00 per share as of October 31, 2019, \$16.35 per share as of December 31, 2019, \$14.60 per share as of March 31, 2020, \$26.80 per share as of June 30, 2020, \$26.75 per share as of September 30, 2020 and \$28.54 immediately prior to the completion of the Business Combination Transaction. Subsequent to the closing of the Business Combination Transaction, our board of directors determines the fair value of each share of common stock underlying stock-based awards based on the closing price of our common stock as reported by Nasdaq on the date of grant.

Determination of Fair Value – Stock Option Awards

Subsequent to the closing of the Business Combination Transaction, we estimate the fair value of our stock option awards using the Black Scholes method utilizing the “simplified method,” for determining the expected life of the award, which is based on the mid-point between the vesting date and the end of the contractual term as all options granted after becoming a public entity will be granted “at-the-money.” We determine the volatility for options granted based on an analysis of reported data for a peer group of companies. The expected volatility of granted options has been determined using a weighted-average of the historical volatility measures of this peer group of companies. We will continue to apply this method until a sufficient amount of historical information regarding the volatility of our own stock price becomes available. The risk-free interest rate utilized in our calculations is based on a treasury instrument whose term is consistent with the expected life of the stock options. The expected dividend yield is assumed to be zero as we have never paid dividends and do not have current plans to pay any dividends on our common stock.

Prior to the closing of the Business Combination Transaction, we estimated the fair value of the stock option awards on the date of grant using the option pricing method, which is a variant of an income approach. The option pricing method was used given that a portion of the option awards have an exercise price that is considered to be “deeply out of the money.” The option pricing method incorporated the probability of the performance and market conditions being met and adjustments to the estimated life and value of the options to reflect the necessary growth in the common share value for such shares to become exercisable.

As there was no public market for our common stock prior to the closing of the Business Combination Transaction, we determined the volatility for options granted based on an analysis of reported data for a peer group of companies. The expected volatility of granted options were determined using a weighted-average of the historical volatility measures of this peer group of companies. The expected life of options for these awards were determined by probability-weighting the calculated expected life of the option at each month the option was eligible to be at- or in-the-money to estimate the overall adjusted expected life. We did not utilize the “simplified method” to determine expected life as this method is not valid for options that are “deeply out of the money.” The risk-free interest rate utilized in our calculations is based on a treasury instrument whose term is consistent with the expected life of the stock options. The expected dividend yield is assumed to be zero as we have never paid dividends and does not have current plans to pay any dividends on our common stock.

Our option awards granted through September 30, 2020, reflect multiple strike prices. In order to motivate our employees, a premium in exercise price was applied to 25% of each option award. Following the closing of the Business Combination Transaction, the strike price of our option awards reflects the closing price of our common stock as reported by Nasdaq on the date of grant.

Vesting Terms

Stock options granted to employees generally vest 25% on the first anniversary of the applicable vesting start date of each grant with the remainder vesting in 36 equal monthly installments thereafter, subject to continued employment. Stock options granted to our non-employee directors vesting in 36 monthly installments through the third anniversary of the grant date.

Restricted stock unit awards granted generally vest in three equal annual installments beginning on the first anniversary of the date of grant.

Conversion of Equity Awards

Pursuant to the terms of our Business Combination Agreement, the shareholders of Old Cerevel exchanged their shares of common stock in Old Cerevel for shares of Cerevel Therapeutics Holdings, Inc., based upon the Exchange Ratio. Awards under the company's previously existing equity incentive plans, including the 2020 Old Cerevel Equity Incentive Plan and the 2018 Old Cerevel Equity Incentive Plan, were also exchanged for awards issued under a new equity incentive plan adopted by Cerevel Therapeutics Holdings, Inc. at the same Exchange Ratio.

For additional information on the Business Combination and our equity-based incentive plans, please read Note 3, *Business Combination* and Note 12, *Equity-Based Compensation*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Accrued Research and Development

We have entered into various agreements with CROs, CMOs and other service providers. Our research and development accruals are estimated based on the level of services performed, progress of the studies, including the phase or completion of events, and contracted costs. The estimated costs of research and development provided, but not yet invoiced, are included in accrued liabilities on the balance sheet. If the actual timing of the performance of services or the level of effort varies from the original estimates, we will adjust the accrual accordingly. Payments made to third parties under these arrangements in advance of the performance of the related services are recorded as prepaid expenses and other current assets until the services are rendered. To date, our estimated accruals have not differed materially from actual costs incurred.

Emerging Growth Company and Smaller Reporting Company Status

We qualify as an "emerging growth company" as defined in Section 2(a)(19) of the Securities Act, as modified by the JOBS Act. As such, we are eligible for and intend to take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies for as long as we continue to be an emerging growth company, including (i) the exemption from the auditor attestation requirements with respect to internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act, (ii) the exemptions from say-on-pay, say-on-frequency and say-on-golden parachute voting requirements and (iii) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year (a) in which we are deemed to be a "large accelerated filer" under the Exchange Act, (b) in which we have total annual gross revenue of at least \$1.07 billion, or (c) following the fifth anniversary of the closing of ARYA's initial public offering; or (ii) the date on which we have issued more than \$1 billion in non-convertible debt in the prior three-year period. In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the exemption from complying with new or revised accounting standards provided in Section 7(a)(2)(B) of the Securities Act as long as we are an emerging growth company. We have elected to take advantage of this exemption and will therefore, for so long as we are an emerging growth company, delay the adoption of certain accounting standards until those standards would otherwise apply to private companies.

We are also a "smaller reporting company" meaning that the market value of our voting and non-voting common equity held by non-affiliates was less than \$700 million as of our most recently completed second fiscal quarter and our annual revenue was less than \$100 million during our most recently completed fiscal year. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Recent Accounting Pronouncements

For a discussion of new accounting standards and their expected impact on our consolidated financial statements or disclosures, please read Note 5, *Recent Accounting Guidance*, to our audited consolidated financial statements included elsewhere in this Annual Report.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The primary objectives of our investment activities are to ensure liquidity and to preserve capital. We are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities. We had cash and cash equivalents of \$383.6 million and \$79.6 million as of December 31, 2020 and 2019, respectively, which consisted of bank deposits and highly liquid money market funds. Furthermore, we had no outstanding debt as of December 31, 2020 and 2019.

Interest Rate Sensitivity

Historical fluctuations in interest rates have not been significant for us. Due to the short-term maturities of our cash equivalents, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents.

Foreign Currency Exchange Risk

We currently do not have significant exposure to foreign currencies as we hold no foreign exchange contracts, option contracts, or other foreign hedging arrangements. Further, our operating activities are predominately denominated in U.S. dollars.

We do not believe that inflation, interest rate changes or exchange rate fluctuations had a significant impact on our results of operations for any periods presented herein.

Item 8. Financial Statements and Supplementary Data.

The financial statements required to be filed pursuant to this Item 8 are appended to this Annual Report. An index of those financial statements is found in Item 15, Exhibits and Financial Statement Schedules, of this Annual Report.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain “disclosure controls and procedures” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act that are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, who serve as our principal executive officer and principal financial officer, respectively, has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2020. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2020.

Internal Control Over Financial Reporting

Management's Report on Internal Control Over Financial Reporting

This Annual Report does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our independent registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

Remediation of Prior Material Weakness

In connection with the audit of our consolidated financial statements for the year ended December 31, 2019, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting related to our cash disbursement process. Specifically, our cash disbursement process was not adequately designed to identify unauthorized payment requests. In the first quarter of 2020, we discovered a business email compromise caused by phishing, which led to the misappropriation of a portion of its funds in late 2019. We do not believe that this breach had a material adverse effect on our business, but a deficiency in our internal controls resulted in the inability to prevent and timely detect the unauthorized disbursement requests.

We have implemented measures designed to improve our internal control over financial reporting to remediate this material weakness, including continuing to evaluate cybersecurity risks, developing a priority list of critical information systems and designing and implementing control activities such as implementing additional security policies and processes, hiring and training additional personnel, strengthening supervisory reviews and further enhancing our processes and internal control documentation.

As of December 31, 2020, management concluded that the above material weakness in our internal controls over financial reporting related to our cash disbursement process was remediated as we implemented controls that were designed and operating effectively to ensure that cash disbursements were appropriately authorized prior to initiation.

Changes in Internal Control Over Financial Reporting

Other than changes described under “—*Remediation of Prior Material Weakness*” above, there was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the during the fiscal quarter ended December 31, 2020, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The following sets forth certain information, as of the date of this Annual Report, concerning our directors and executive officers.

| Name | Age | Position |
|------------------------------------|-----|--|
| N. Anthony Coles, M.D. | 60 | President, Chief Executive Officer, Chairperson and Class I Director |
| Mark Bodenrader | 48 | Chief Accounting Officer |
| Kenneth DiPietro | 62 | Chief Human Resources Officer |
| John Renger, Ph.D. | 52 | Chief Scientific Officer |
| Raymond Sanchez, M.D. | 60 | Chief Medical Officer |
| Kathleen Tregoning, M.A. | 50 | Chief Corporate Affairs Officer |
| Kathy Yi, M.B.A. | 49 | Chief Financial Officer |
| Deborah Baron, M.B.A. | 52 | Class II Director |
| Morris Birnbaum, M.D., Ph.D. | 69 | Class I Director |
| Marijn Dekkers, Ph.D. | 63 | Class III Director |
| Doug Giordano, M.B.A. | 58 | Class II Director |
| Christopher Gordon, M.B.A. | 48 | Class I Director |
| Adam Koppel, M.D., Ph.D. | 51 | Class II Director |
| Ruth McKernan, Ph.D., CBE, FMedSci | 63 | Class II Director |
| Deval Patrick, J.D. | 64 | Class III Director |
| Norbert Riedel, Ph.D. | 63 | Class III Director |
| Gabrielle Sulzberger, J.D., M.B.A. | 60 | Class III Director |

Executive Officers

N. Anthony Coles, M.D. has been our President and Chief Executive Officer since September 2019 and has served as the Chairperson of our board of directors since December 2018. From October 2014 to September 2019, Dr. Coles co-founded and served as the chairperson and chief executive officer of Yumanity Therapeutics, Inc., where he continues to serve as executive chair. Yumanity Therapeutics is a clinical-stage biopharmaceutical company targeting neurodegenerative diseases caused by protein misfolding. From October 2013 to October 2014, Dr. Coles served as the chairperson and chief executive officer of TRATE Enterprises, LLC, a privately-held company. Previously, Dr. Coles served as president, chief executive officer and chairperson of the board of Onyx Pharmaceuticals, Inc., from 2012 until its sale to Amgen in 2013, having served as its president, chief executive officer and a member of its board of directors from 2008 until 2012. Prior to joining Onyx Pharmaceuticals, Inc., Dr. Coles was president, chief executive officer and a member of the board of directors of NPS Pharmaceuticals, Inc. Before joining NPS Pharmaceuticals, Inc. in 2005, Dr. Coles was senior vice president of commercial operations at Vertex Pharmaceuticals Inc., and earlier, held several executive positions at Bristol-Myers Squibb Company and positions of increasing responsibility at Merck & Co., Inc. In addition to having previously served as a director of Onyx and NPS, Dr. Coles was formerly a director of CRISPR Therapeutics AG, Laboratory Corporation of America Holdings and Campus Crest Communities, Inc. Dr. Coles currently serves on the board of directors of McKesson Corporation and Regeneron Pharmaceuticals, Inc. and is a member of the Board of Trustees for Johns Hopkins University. He previously served as a member of the board of directors of CRISPR Therapeutics AG. He is also a member of the Council for the Smithsonian's National Museum of African American History and Culture in Washington, D.C.; a member of the Board of Trustees for The Metropolitan Museum of Art in New York City; a member of the Board of Directors of the Council on Foreign Relations, an independent, non-partisan membership organization, think tank, and publisher; and a member of the Harvard Medical School Board of Fellows. Dr. Coles earned a B.A. at Johns Hopkins University, a medical degree from Duke University, and a master's degree in public health from Harvard University. He completed his cardiology and internal medicine training at Massachusetts General Hospital and was a research fellow at Harvard Medical School. We believe Dr. Coles is qualified to serve on our board of directors because of his extensive executive experience in our industry and his service as our Chief Executive Officer.

Mark Bodenrader has served as our Vice President of Finance and Chief Accounting Officer since September 2019. Previously, from February 2007 to September 2019, Mr. Bodenrader held various roles of increasing responsibility at Biogen Inc., a publicly traded biotechnology company, most recently as corporate controller. Previously, he was head of internal audit at Heritage Property Investment Trust. From 2003 to 2004, Mr. Bodenrader served as manager, assurance and business advisory services at Grant Thornton LLP, after serving as assistant controller at Cabot Industrial Trust from 1998 to 2002. Mr. Bodenrader began his career in public accounting at Arthur Andersen, LLP. Mr. Bodenrader earned a B.S. in Finance and Accounting from Merrimack College, and is a Certified Public Accountant.

Kenneth DiPietro has served as our Chief Human Resources Officer since April 2019. Previously, Mr. DiPietro worked as the chief talent officer for Oak Hill Capital Partners from February 2018 to October 2018 and was also a senior advisor to several Polaris Ventures portfolio companies beginning in August 2017. Previously, he was a director at InVivo Therapeutics Holdings Corp. after serving as executive vice president of human resources at Biogen Inc. from February 2012 to September 2017. Earlier in his career, Mr. DiPietro held senior human resources roles with Lenovo Group Limited, Microsoft Corporation, and Dell Technologies. Mr. DiPietro also served in a range of human resource and general management positions over 19 years at PepsiCo. Mr. DiPietro earned a B.S. in Industrial and Labor Relations from Cornell University. He sits on the Dean's Advisory Board at Cornell, the Peer Roundtable, the Boston Posse Advisory Board and advises a small number of technology startups focused on human resource management.

John Renger, Ph.D. has served as our Chief Scientific Officer since May 2019. Previously, Dr. Renger served as vice president of research and development and regulatory affairs at Imbrium Therapeutics L.P. from April 2018 to April 2019 and as head of clinical research and translational medicine at Purdue Pharma L.P. from August 2016 to April 2018. Previously, Dr. Renger held roles of increasing responsibility at Merck & Co. between October 2001 and August 2016, most recently serving as associate vice president. Dr. Renger was a postdoctoral fellow at the Massachusetts Institute of Technology Center for Learning and Memory and previously worked at the RIKEN Brain Science Institute in Japan. Dr. Renger earned his Ph.D. in biological sciences with a focus on neurogenetics at the University of Iowa where he also completed his B.S. in biology.

Raymond Sanchez, M.D., has served as our Chief Medical Officer since January 2019. Previously, from November 2007 to January 2019, Dr. Sanchez held various roles of increasing responsibility at Otsuka Pharmaceutical Development and Commercialization, Inc., most recently as senior vice president, global clinical development. From June 2018 to January 2019, Dr. Sanchez served as the chief medical officer of Avanir Pharmaceuticals. Dr. Sanchez is currently the executive co-chair of the International Society for CNS Drug Development and trustee, member of the board of directors for the Connecticut Mental Health Center Foundation, Yale School of Medicine, as well as several other not-for-profit organizations. Dr. Sanchez received a bachelor's degree from the Weinberg College of Arts and Sciences at Northwestern University and a medical degree from the Feinberg School of Medicine at Northwestern. He completed his residency training and fellowship in psychiatry at the Yale University Medical School, where he was also appointed as an instructor.

Kathleen Tregoning, M.A. has served as our Chief Corporate Affairs Officer since July 2020. Previously, from February 2017 to March 2020, Ms. Tregoning served as Executive Vice President for External Affairs at Sanofi S.A., a French multinational pharmaceutical company, where she was responsible for leading an integrated organization that brought together market access, communications, public policy, government affairs, patient advocacy and corporate social responsibility. Prior to joining Sanofi, Ms. Tregoning spent more than a decade at Biogen Inc., a multinational biotechnology company, first as Vice President, Public Policy & Government Affairs, from 2006 to 2015, and then as Senior Vice President, Corporate Affairs, from December 2015 to February 2017. Previously, Ms. Tregoning served as a professional staff member in the United States Congress, where she held health policy roles with the Senate Budget Committee, the House Energy & Commerce Committee, and the House Ways & Means Committee. Ms. Tregoning began her career with Andersen Consulting, where she developed business strategies and processes for clients in a range of industries, and later served as an Assistant Deputy Mayor for Policy & Budget in the office of the Mayor of Los Angeles. Ms. Tregoning graduated from Stanford University with a B.A. in International Relations and holds an M.A. in Public Policy from the Kennedy School of Government at Harvard University.

Kathy Yi, M.B.A. has served as our Chief Financial Officer since June 2019. Ms. Yi has over 18 years of experience in corporate finance, including financial analysis in support of M&A transactions, licensing and other business development activities. Previously, Ms. Yi served as executive vice president, chief financial officer and secretary of Sangamo Therapeutics, Inc., from February 2017 to June 2019. Prior to Sangamo Therapeutics, Ms. Yi was head of finance at Novartis Pharmaceutical Corporation from February 2014 to February 2017. From 2007 to 2014, Ms. Yi held various financial management positions of increasing seniority at Life Technologies Corp., a biotech company that was acquired by Thermo Fisher Scientific in 2014, including finance leader, corporate FP&A from 2012 to 2014, director of finance, M&A/corporate development from 2010 to 2012 and director of finance, global manufacturing operations from 2007 to 2010. From 2001 to 2007, Ms. Yi held increasing roles of responsibilities in corporate finance at Intel Corporation. Ms. Yi earned her B.S. in Chemical Engineering from the University of California at Berkeley and an M.B.A. from Columbia Business School.

Directors

Deborah Baron, M.B.A. has served as a member of our board of directors since January 2021. Ms. Baron is currently a senior vice president in Pfizer Inc.'s Worldwide Business Development Group, which she joined in 2002. In this role, Ms. Baron leads all Pfizer business development activities, covering a wide range of transaction types including venture investments, research/development/commercial collaborations, license agreements, mergers and acquisitions and divestitures. Prior to this role, Ms. Baron held positions of increasing responsibility at Pfizer, including leading business development activities in Pfizer's Primary Care and Emerging Markets businesses. Before joining Pfizer in 2002, Ms. Baron was an associate principal at McKinsey & Co, a management consulting firm, and was previously a manufacturing engineer at The Stanley Works, now Stanley Black & Decker, Inc., a manufacturer of industrial tools and household hardware and provider of security products. Ms. Baron received her B.S. in Mechanical Engineering from the Massachusetts Institute of Technology and an M.B.A. from the Sloan School of Management at the Massachusetts Institute of Technology. We believe Ms. Baron is qualified to serve on our board of directors because of her extensive executive experience in our industry.

Morris Birnbaum, M.D., Ph.D. has served as a member of our board of directors since September 2018. Since 2017, Dr. Birnbaum has served as the senior vice president and chief scientific officer of internal medicine at Pfizer Inc., where he previously served as senior vice president and chief scientific officer of CVMET from 2014 to 2017. Previously, Dr. Birnbaum served as a professor of medicine at the University of Pennsylvania from December 1994 to June 2014. Dr. Birnbaum was elected to membership in the American Society for Clinical Investigation and Association of American Physicians and is a fellow of the American Association for the Advancement of Science. Dr. Birnbaum completed his undergraduate, graduate and medical training at Brown University. He carried out clinical training in internal medicine at Barnes Hospital of Washington University School of Medicine and then performed postdoctoral studies at the University of California, San Francisco and Sloan-Kettering Cancer Institute. We believe Dr. Birnbaum is qualified to serve on our board of directors because of his scientific and industry experience in our field.

Marijn Dekkers, Ph.D. has served as a member of our board of directors since September 2018. Since May 2017, Dr. Dekkers has served as a founder and the chairman of Novalis LifeSciences LLC, an investment and advisory firm for the life science industry. From October 2010 to April 2016, Dr. Dekkers served as chief executive officer of Bayer AG in Leverkusen, Germany, and from 2002 to 2009, he was chief executive officer of Thermo Fisher Scientific. Dr. Dekkers currently serves on the board of directors of the Foundation for the National Institutes of Health, Georgetown University and Quanterix Corporation and previously served on the board of directors of Unilever. Dr. Dekkers received his Ph.D. and M.S. in chemical engineering from the University of Eindhoven and his bachelor's degree in chemistry from the Radboud University, both in the Netherlands. We believe Dr. Dekkers is qualified to serve on our board of directors because of his extensive executive experience in our industry.

Doug Giordano, M.B.A. has served as a member of our board of directors since September 2018. Mr. Giordano formerly served as a senior vice president in Pfizer Inc.'s Worldwide Business Development Group, which he joined in 2007. Previously, Mr. Giordano held positions of increasing responsibility within Pfizer's U.S. Pharmaceuticals commercial strategy and business development team. Before his U.S. pharmaceuticals operating role, Mr. Giordano worked in a mergers and acquisitions role within Pfizer's Medical Technology Group. Prior to his role with the Medical Technology Group, Mr. Giordano held positions within Pfizer's U.S. Pharmaceutical

Group in finance and global manufacturing. Prior to joining Pfizer, Mr. Giordano was a consultant at Booz, Allen & Hamilton. From April 2017 to March 2019, Mr. Giordano served on the board of directors of ICU Medical, Inc. He also previously served on the board of directors of ViiV Healthcare Limited from 2012 to 2019. Mr. Giordano earned a bachelor's degree in biomedical engineering from Duke University and an M.B.A. from Cornell University's Johnson School of Business. We believe Mr. Giordano is qualified to serve on our board of directors because of his industry experience in our field.

Christopher Gordon, M.B.A. has served as a member of our board of directors since September 2018. Mr. Gordon is a managing director at Bain Capital. He joined the firm in 1997 and has significant experience in private equity investing, with a specialized focus in the healthcare sector. He currently co-leads Bain Capital's North American Private Equity business and leads Bain Capital's North American healthcare team. Mr. Gordon is also a member of the investment committee for the Bain Capital Life Sciences Fund. Prior to joining Bain Capital, he was a consultant at Bain & Company. Mr. Gordon has been actively involved in and served on the Board of Directors of a wide spectrum of prominent healthcare companies in which Bain Capital has made investments. These include HCA Inc., Quintiles Transnational Corporation, Grupo Notre Dame Intermedica, Air Medical Group Holdings Inc., Acadia Healthcare Company Inc., Beacon Health Options, Physio Control Inc., QuVa Pharmaceuticals, Waystar Inc., Aveanna and Surgery Partners. He is also a founding director of the Healthcare Private Equity Association. Mr. Gordon volunteers his time and support to a variety of charitable organizations and currently serves on the board of directors of Tenacity, Boston Medical Center Health Plan and Dana Farber Cancer Institute Board of Trustees. Mr. Gordon received a bachelor's degree in economics from Harvard College, graduating magna cum laude, and an M.B.A. from Harvard Business School, where he was a Baker Scholar. We believe Mr. Gordon is qualified to serve on our board of directors because of his experience as a director and public equity and growth private equity investor in pharmaceutical companies.

Adam Koppel, M.D., Ph.D. has served as a member of our board of directors since September 2018. Dr. Koppel is managing director of Bain Capital Life Sciences. He initially joined Bain Capital Public Equity in 2003, where he was a leader within the healthcare sector until 2014. From 2014 to 2016, Dr. Koppel was executive vice president of corporate development and chief strategy officer at Biogen, Inc. Prior to joining Bain Capital Public Equity in 2003, Dr. Koppel was an associate principal at McKinsey & Co in New Jersey where he served a variety of healthcare companies. Dr. Koppel sits on the board of directors of BCLS Acquisition Corp., Solid Biosciences, Inc., Dicerna Pharmaceuticals, Inc., Aptinyx Inc. and Foghorn Therapeutics, Inc. Dr. Koppel previously served on the board of directors of Trevena, Inc., PTC Therapeutics, Inc. and Viacyte, Inc. Dr. Koppel graduated magna cum laude from Harvard University with a bachelor's and master's degrees in history and science. He received an M.D. and Ph.D. in neuroscience from the University of Pennsylvania School of Medicine and an M.B.A. from The Wharton School at the University of Pennsylvania, where he was a Palmer Scholar. We believe Dr. Koppel is qualified to serve on our board of directors because of his background as an executive officer, director and public equity and growth private equity investor in pharmaceutical companies, as well as his scientific and medical background.

Ruth McKernan, Ph.D., CBE, FMedSci has served as a member of our board of directors since December 2020. Dr. McKernan has served as a venture partner at SV Health Investors, LLP, a global investment firm focused on the healthcare industry, since 2018. Previously, from 2015 to 2018, Dr. McKernan served as chief executive officer of Innovate UK, a non-departmental public body funded by a grant-in-aid from the UK government. From 2005 to 2015, Dr. McKernan held various roles of increasing responsibility at Pfizer Inc., a global pharmaceutical company, most recently as chief scientific officer. Prior to joining Pfizer, she served in multiple senior positions over 18 years at Merck & Co., a publicly traded pharmaceutical company. Dr. McKernan currently serves as chair of the board of directors of AstronauTx Ltd. and BioIndustry Association, a trade association for innovative life sciences in the UK, and as a trustee of Alzheimer's Research UK, and is a member of Cancer Research UK. Dr. McKernan earned her B.S. in Pharmacology and Biochemistry from King's College London, where she also obtained her Ph.D. in Neuroscience from the Institute of Psychiatry, Psychology and Neuroscience. Dr. McKernan was conferred with Honorary D.Sc. degrees from the University of Bradford and the University of Coventry. We believe Dr. McKernan is qualified to serve on our board of directors because of her scientific and industry experience in our field.

Deval Patrick, J.D. has served as a member of our board of directors since January 2021. Mr. Patrick has served as the founder and chairman of TogetherFUND, a political action committee that supports progressive politics and grassroots groups working to drive turnout and engagement among disenfranchised and marginalized voters, since May 2020. From April 2015 to December 2019, Mr. Patrick served as a managing director of Bain Capital LLC, where he founded and led a growth equity fund focused on delivering competitive financial returns and positive social impact. Previously, from January 2007 to January 2015, Mr. Patrick served as Massachusetts' first African-American governor. Prior to his tenure in government, from 2000 to 2004, Mr. Patrick served as the executive vice president and general counsel at The Coca-Cola Company. Previously, from 1998 to 1999, he served as vice president and general counsel at Texaco Inc., until its acquisition by Chevron Corporation. Mr. Patrick also previously served as a partner in two Boston law firms and, from 1994 to 1997, served as the Assistant Attorney General of the United States for Civil Rights in the Department of Justice. Since 2015, Mr. Patrick has served on the boards of directors of Global Blood Therapeutics, Inc., where he is also a member of its audit and compensation committees, and of American Well Corporation. Mr. Patrick also currently serves on the boards of directors of Twilio Inc. and a number of private companies. Mr. Patrick is a Rockefeller Fellow, a Crown Fellow of the Aspen Institute, and the author of two books, *A Reason to Believe: Lessons from an Improbable Life* and *Faith in the Dream: A Call to the Nation to Reclaim American Values*. Mr. Patrick received his B.A. in English and American Literature from Harvard University and a J.D. from Harvard Law School. We believe Mr. Patrick is qualified to serve on our board of directors because of his extensive public and private sector leadership experience and business management.

Norbert G. Riedel, Ph.D., has served as a member of our board of directors since December 2018. Since September 2015, Dr. Riedel has served as the president and chief executive officer of Aptinyx Inc., a biopharmaceutical company, where he also serves as a member of the board of directors. Dr. Riedel previously served as chief executive officer and president of Naurex Inc., the predecessor to Aptinyx Inc., from January 2014 to August 2015. From 2001 to January 2013, he served as corporate vice president and chief scientific officer of Baxter International Inc., a diversified healthcare company, where from 1998 to 2001, he also served as president and general manager of the recombinant therapeutic proteins business unit and vice president of research and development of the bioscience business unit. From 1996 to 1998, Dr. Riedel served as head of worldwide biotechnology and worldwide core research functions at Hoechst-Marion Roussel, now Sanofi, a global pharmaceutical company. Dr. Riedel served on the board of directors of Ariad Pharmaceuticals, Inc., an oncology company, from May 2011 until the company was acquired in February 2017. Dr. Riedel also serves on the board of directors of Jazz Pharmaceuticals plc, Eton Pharmaceuticals, Inc. and the Illinois Biotechnology Innovation Organization and is also a member of the Austrian Academy of Sciences. Dr. Riedel is an Adjunct Professor at Boston University School of Medicine and an Adjunct Professor of Medicine at Northwestern University's Feinberg School of Medicine. Dr. Riedel previously served as an associate professor of medicine at Boston University School of Medicine and a visiting associate professor at the Massachusetts Institute of Technology. Dr. Riedel holds a diploma in biochemistry and a Ph.D. in biochemistry from the University of Frankfurt. We believe Dr. Riedel is qualified to serve on our board of directors because of his significant scientific, drug discovery and development and commercial expertise with over 20 years of experience in the biotechnology and pharmaceutical industries.

Gabrielle Sulzberger, J.D., M.B.A. has served as a member of our board of directors since June 2019. Ms. Sulzberger currently serves as a strategic advisor to Two Sigma Impact and previously served as a partner at Fontis Partners, a private equity fund. Ms. Sulzberger also currently serves as the chairperson of the board of True Food Kitchen, as a member of the board of directors of Mastercard, Acorns Financial and Brixmor Property Group and as a board trustee of the Ford Foundation. Previously, Ms. Sulzberger served as the chairperson of the board of directors of Whole Foods Market and as a member of the board of directors of Teva Pharmaceuticals and Stage Stores. Ms. Sulzberger earned a bachelor's degree from Princeton University, a J.D. from Harvard Law School and an M.B.A. from Harvard Business School. We believe Ms. Sulzberger is qualified to serve on our board of directors because of her experience as a private equity investor as well as her experience as a director of a range of businesses and industries.

Director Independence

The Nasdaq listing rules require that a majority of our board of directors be independent. An “independent director” is defined generally as a person other than an executive officer or employee of us or any other individual having a relationship which, in the opinion of our board of directors, would interfere with the exercise of independent judgement in carrying out the responsibilities of a director. Our board of directors has determined that each individual who serves on our board of directors, other than Dr. Coles, qualifies as an independent director under Nasdaq listing standards.

Committees of the Board of Directors

Our board of directors has four standing committees: an audit committee, a compensation committee, a nominating and corporate governance committee and a science and technology committee. Copies of each committee’s charter are posted on our website at www.cerevel.com under the “Investor & Media” section. The information contained on or that can be accessed through our website is not incorporated by reference into this Annual Report, and you should not consider such information to be part of this Annual Report.

Audit Committee

The members of our audit committee are Ms. Sulzberger, Mr. Giordano and Dr. Riedel, and Ms. Sulzberger serves as the chairperson of the audit committee. Under the Nasdaq listing rules and applicable SEC rules, we are required to have at least three members of the audit committee. The Nasdaq listing rules and Rule 10A-3 of the Exchange Act require that the audit committee of a listed company be composed solely of independent directors for audit committee purposes, and each member of our audit committee qualifies as an independent director for audit committee purposes under applicable rules. Each of Ms. Sulzberger, Mr. Giordano and Dr. Riedel is financially literate and each of Ms. Sulzberger, Mr. Giordano and Dr. Riedel qualifies as an “audit committee financial expert” as defined in applicable SEC rules.

Compensation Committee

The members of our compensation committee are Dr. Dekkers, Dr. Koppel and Mr. Patrick, all of whom are independent directors, and Dr. Dekkers serves as the chairperson of the compensation committee.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are Mr. Gordon, Ms. Baron, Ms. Sulzberger and Mr. Giordano, all of whom are independent directors, and Mr. Gordon serves as the chairperson of the nominating and corporate governance committee.

Science and Technology Committee

The members of our science and technology committee are Dr. Riedel, Dr. Birnbaum, Dr. Koppel and Ms. McKernan, and Dr. Riedel serves as the chairperson of the science and technology committee.

Role of Our Board of Directors in Risk Oversight

One of the key functions of our board of directors is informed oversight of our risk management process. Our board of directors administers this oversight function directly through our board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure, and our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures. The audit committee also has the

responsibility to review with management the process by which risk assessment and management is undertaken, monitor compliance with legal and regulatory requirements, and review the adequacy and effectiveness of our internal controls over financial reporting. Our nominating and corporate governance committee is responsible for periodically evaluating our company's corporate governance policies and systems in light of the governance risks that our company faces and the adequacy of our company's policies and procedures designed to address such risks. Our compensation committee assesses and monitors whether any of our compensation policies and programs is reasonably likely to have a material adverse effect on our company.

Code of Business Conduct and Ethics

Our board of directors has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. The full text of our code of business conduct and ethics is available on our website at www.cerevel.com under the "Investors & Media" section.

We intend to disclose future amendments to certain provisions of our code of business conduct and ethics, or waivers of certain provisions as they relate to our directors and executive officers, at the same location on our website or in public filings. The information on our website is not intended to form a part of or be incorporated by reference into this Annual Report.

Item 11. Executive Compensation.

Executive Compensation Overview

Our approach to executive compensation directly supports the talent strategy we have employed to develop and grow a new organization that has experienced and will continue to experience significant growth in a short time period. With a pipeline of 11 small molecule programs, which includes five clinical-stage product candidates and seven clinical data readouts expected over the next three years, we believe our portfolio of product candidates is larger and more complex than that of most other development-stage biopharmaceutical companies, necessitating an elevated talent strategy and an executive compensation philosophy that will support our aspirations to maximize these opportunities for our stakeholders.

We have built a highly experienced team of senior leaders and neuroscience drug developers who combine a nimble, results-driven biotech mindset with the proven expertise of large pharmaceutical company drug discovery and development. Our people will be what differentiates us from our competitors through building deep and innovative capabilities and expertise. Constructing a leadership team to provide structure and direction will require retaining talent with proven leadership and results, extensive technical expertise, aggressive organizational expansion experience and the vision to take us to new heights. Attracting, recruiting and hiring talent who have the requisite skill set, background and track record to lead and manage a portfolio of our scale with the dexterity to operate in a start-up environment is a challenge.

Our named executive officers are identified in the 2020 summary compensation table below. Their compensation primarily consists of (1) base salary, (2) annual performance-based cash bonus plan awards and (3) equity incentive awards. Our named executive officers are also eligible to participate in the same retirement and health and welfare benefit plans as our other full-time employees.

Our compensation committee will continue to annually review and assess our compensation programs to ensure they align with our compensation philosophy and guiding principles. Our compensation committee will continue to engage a seasoned compensation consultant to provide tailored market guidance and best practices.

Our named executive officers are:

- N. Anthony Coles, M.D., our President, Chief Executive Officer and Chairperson;
- John Renger, Ph.D., our Chief Scientific Officer;

- Kathleen Tregoning, M.A., our Chief Corporate Affairs Officer; and
- Bryan Phillips, J.D., our former Chief Legal Officer

Our compensation philosophy is in part focused on assembling an experienced research and development team with a differentiated understanding of the complex neurocircuitry, receptor pharmacology and genetics that underlie neuroscience diseases to develop small molecules with target receptor selectivity and indication-appropriate pharmacology, which we believe are key to enhancing activity and improving tolerability in the treatment of these diseases. In 2020, Ms. Tregoning and Mr. Phillips joined us and received new hire equity grants that were intended to entice them to join Cerevel and/or leave respective prior employers and cover any pay forfeitures they experienced. These new hire equity grants caused their compensation, as calculated in accordance with SEC rules, to exceed the typical levels expected for their respective roles. For those reasons, Ms. Tregoning and Mr. Phillips are named executive officers for 2020. Other of our executive officers received their new hire equity grants in prior years and therefore, in accordance with SEC rules, these new hire equity grants were not factored into the determination of our 2020 named executive officers.

2020 Summary Compensation Table

The following table presents information regarding the total compensation awarded to, earned by and paid to our named executive officers for services rendered to us in all capacities in 2020.

| Name and Principal Position | Year | Salary (\$) | Bonus \$(2) | Option Awards \$(3) | Non-Equity Incentive Compensation \$(4) | All Other Compensation (\$) | Total (\$) |
|---|------|----------------|----------------|---------------------------|--|-----------------------------------|---------------|
| N. Anthony Coles M.D. <i>President, Chief Executive Officer and Chairperson</i> ⁽¹⁾ | 2020 | 600,000 | — | 1,499,999 | 444,000 | 198,000 ⁽⁵⁾ | 2,741,999 |
| | 2019 | 398,630 | — | 9,817,097 | 229,212 | 291,000 ⁽⁶⁾ | 10,735,939 |
| John Renger, Ph.D. <i>Chief Scientific Officer</i> | 2020 | 450,000 | — | 900,000 | 266,400 | 228,675 ⁽⁷⁾ | 1,845,075 |
| | 2019 | 330,411 | 130,000 | 1,489,792 | 151,989 | 26,716 ⁽⁸⁾ | 2,128,908 |
| Kathleen Tregoning, M.A. <i>Chief Corporate Affairs Officer</i> | 2020 | 193,205 | 100,000 | 3,322,419 | 114,378 ⁽⁹⁾ | — | 3,730,002 |
| Bryan Phillips, J.D. <i>Former Chief Legal Officer</i> ⁽¹⁰⁾ | 2020 | 410,000 | — | 2,543,628 | 242,720 | 239,599 ⁽¹¹⁾ | 3,435,947 |

- (1) Dr. Coles serves as our Chairperson but receives no additional compensation for his service in this role.
- (2) The amounts reflect signing bonuses paid to the applicable named executive officer at his or her time of hire. All other cash bonuses, which were based upon the achievement of performance goals under our annual performance-based cash bonus plan, are disclosed under the “Non-Equity Incentive Compensation” column.
- (3) The amounts reflect the aggregate grant date fair value of stock option awards granted in 2020 and 2019, as computed in accordance with ASC Topic 718. Such grant date fair values do not take into account any estimated forfeitures. The assumptions used in calculating the grant date fair value of the stock options reported in this column are set forth in Note 12, *Equity-Based Compensation*, to our consolidated financial statements for the year ended December 31, 2020 included in this Annual Report. The amounts reported in this column reflect the accounting cost for these stock options and do not correspond to the actual economic value that may be received by the named executive officers upon the exercise of the stock options or any sale of the underlying shares of common stock.
- (4) The amounts reported reflect the annual performance-based cash bonus plan amounts awarded to our named executive officers for their service. See “—Annual Performance-Based Cash Bonus Plan” below.
- (5) The amount reported for Dr. Coles represents \$198,000 paid by us for Dr. Coles’ housing allowances.
- (6) The amount reported for Dr. Coles represents \$216,000 paid by us for Dr. Coles’ housing allowances and \$75,000 for legal fees he incurred in connection with the negotiation of his compensatory agreements.

- (7) The amount reported for Dr. Renger represents \$150,000 paid by us for Dr. Renger's relocation reimbursement, \$17,100 for matching contributions made by us under our 401(k) plan and \$61,575 paid by us for tax-gross ups for relocation reimbursements.
- (8) The amount reported for Dr. Renger represents \$12,000 paid by us for living expense reimbursement, \$7,875 for matching contributions made by us under our 401(k) plan, \$4,590 for legal fees he incurred in connection with the negotiation of his compensatory agreements and \$2,251 paid by the Company for tax-gross ups for living expense reimbursement.
- (9) Ms. Tregoning's annual performance-based cash bonus plan award was prorated based on the number of days she was in active service during fiscal year 2020.
- (10) Mr. Phillips resigned as Chief Legal Officer, effective on December 18, 2020, and provided transitional services through January 8, 2021.
- (11) The amount reported for Mr. Phillips represents \$203,133 paid by us for relocation reimbursement (\$125,000 of which was repaid in connection with Mr. Phillips' resignation), \$134,899 paid by us for tax-gross ups for relocation, \$17,100 for matching contributions made by us under our 401(k) plan and \$9,468 paid by us for legal fees associated with negotiation of his employment agreement paid on behalf of Mr. Phillips.

Narrative Disclosure to the Summary Compensation Table

2020 Base Salaries

The employment agreement with each named executive officer, described below, establishes a base salary, which is subject to discretionary increases that factors into consideration market competitiveness, his or her skill set, experience, performance, role and responsibilities and budget. As of December 31, 2020, the base salaries for Drs. Coles and Renger, Ms. Tregoning and Mr. Phillips were \$600,000, \$450,000, \$410,000 and \$410,000 respectively.

Annual Performance-Based Cash Bonus

Our annual performance-based cash bonus plan is designed to align, motivate and reward our executive team for strong company performance based on the attainment of certain pre-identified short-term business priorities. During the year ended December 31, 2020, the target annual bonuses for Drs. Coles and Renger, Ms. Tregoning and Mr. Phillips were equal to 50%, 40%, 40% and 40%, respectively, of their respective annual base salaries. Early in 2020, our board of directors determined a number of company performance goals for fiscal 2020 pertaining to (i) research and development progress of certain clinical assets, (ii) finance and (iii) people and culture, with a pre-determined assigned weight of 50%, 40% and 10%, respectively.

In 2021, our board of directors evaluated our 2020 performance against these earlier established performance goals. For research and development, we achieved 146% of target, and, for each of finance and people and culture, we achieved 150% of target. The overall result was an aggregate achievement of 148%, or the Company Multiplier. Each named executive officer's target bonus (prorated, if applicable) was then multiplied by such Company Multiplier to determine his or her bonus payment for 2020. The amounts earned under our annual performance-based cash bonus plan with respect to the fiscal year ended December 31, 2020 are reported under the "Non-Equity Incentive Compensation" column in the 2020 Summary Compensation Table above.

Equity Incentive Compensation

In order to appropriately balance the achievement of short-term results through our annual performance-based cash bonus plan, we also grant stock options to our executives to emphasize the importance of long-term value creation by aligning the long-term interests of our executives with that of our stakeholders. These stock options only increase in value when our enterprise value increases. The outstanding option awards generally vest over four years, with 25% vesting on the first anniversary of the vesting start date of each grant and in 36 equal monthly installments thereafter, generally subject to continued service. The stock options awarded to the named executive officers during the fiscal year ended December 31, 2020 are reflected in the Outstanding Equity Awards Table below.

Employment Agreements with Our Named Executive Officers

We are party to employment agreements with each of our named executive officers. The material terms of these agreements with each named executive officer are described below.

N. Anthony Coles, M.D. On November 23, 2018, we entered into an employment agreement with Dr. Coles for the position of Executive Chairperson, Chairperson of our board of directors and his future appointment to Chief Executive Officer. In accordance with his employment agreement, as amended, on November 27, 2018, Dr. Coles was appointed to the position of Executive Chairperson and Chairperson of our board of directors with a base salary of \$300,000. Dr. Coles' agreement also provided for him to become Chief Executive Officer no later than March 31, 2019; however, his agreement was subsequently amended to provide for his appointment to be effective as of September 3, 2019. In connection with taking on the Chief Executive Officer role, Dr. Coles' base salary increased to \$600,000. Under his employment agreement, Dr. Coles is eligible to earn an annual target bonus equal to 50% of his base salary. His salary is subject to increase from time to time by our board of directors within its discretion. Dr. Coles was promised an equity award of stock options, a portion of which was contingent upon him becoming Chief Executive Officer no later than March 31, 2019, which deadline was extended by subsequent amendments to September 4, 2019. Dr. Coles' employment agreement provides that his stock option awards that are subject to time-based vesting and outstanding as of the date of a sale event (as defined in his employment agreement) will be accelerated and vest in connection with such sale event if (i) he is in continuous service through the date of such sale event or (ii) within the 12 month period following a sale event his employment is (A) terminated by us without cause (as defined in, and modified for severance purposes, in his employment agreement) or (B) he resigns for good reason (as defined in his employment agreement). Dr. Coles is also eligible to receive reimbursement of up to \$18,000 per month in reasonable living and commuting expenses and applicable taxes, through November 28, 2020, subject to repayment of up to 50% of such amounts if Dr. Coles' employment is terminated by us for cause or he resigns without good reason within 24 months of the effective date of his employment agreement. Dr. Coles' agreement provided for the reimbursement by us of up to \$75,000 of legal fees incurred in connection with the negotiation of his employment agreement and related agreements. Dr. Coles is eligible to participate in the employee benefit plans generally available to all our full-time employees, subject to the terms of those plans.

Dr. Coles' employment has no specified term but can be terminated at will by either party. If Dr. Coles' employment is terminated by us without cause or by him for good reason, Dr. Coles will be entitled to certain payments and benefits in addition to accrued obligations. These payments and benefits include (i) twenty-four (24) months of salary continuation, (ii) a prorated amount of his target bonus, (iii) acceleration of an additional 12 months of vesting for his stock options and any other stock awards granted to him under our equity incentive plan and (iv) up to twenty-four (24) months (dependent on COBRA eligibility for such period) of company-sponsored benefits continuation. In the event his employment is terminated within twelve (12) months following a sale event (as defined in the agreement), in addition to the accelerated vesting of his stock option award and any other time-based equity awards described above, subject to certain limitations, he will be entitled to receive (i) twenty-four (24) months of salary plus two times (2x) his target bonus payable in a lump sum, and (ii) up to eighteen (18) months (dependent on COBRA eligibility for such period) of company-sponsored benefits continuation.

John Renger, Ph.D. On March 16, 2019, we entered into an employment agreement with Dr. Renger for the position of Chief Scientific Officer effective as of April 8, 2019. Pursuant to his employment agreement, Dr. Renger is entitled to a base salary of \$450,000 and an annual target bonus equal to 40% of his annual base salary. His salary is subject to increase from time to time by our board of directors in its discretion. Dr. Renger is eligible to participate in our employee benefit plans generally available to our executive employees, subject to the terms of those plans. The employment agreement also provided for a \$130,000 signing bonus, relocation expenses up to \$150,000 (grossed up for any taxes imposed on the amounts reimbursed) and up to \$3,000 monthly for living expenses for the first four months of his employment. Under his employment agreement, Dr. Renger was also promised an equity award of stock options subject to the terms of an award agreement and our equity incentive plan.

Dr. Renger's employment has no specified term but can be terminated at will by either party. If Dr. Renger's employment is terminated by us without cause, or if Dr. Renger terminates his employment for good reason (as such terms are defined in his employment agreement), Dr. Renger will be entitled to certain payments and benefits in addition to accrued obligations. These payments and benefits include (i) twelve (12) months of salary continuation, (ii) a prorated amount of his target annual bonus for the year of such termination based on the number of days of Dr. Renger's service during the year his employment is terminated and (iii) up to twelve (12) months (dependent on COBRA eligibility for such period) of company-sponsored benefits continuation.

Kathleen Tregoning, M.A. On July 7, 2020, we entered into an employment agreement with Ms. Tregoning for the position of Chief Corporate Affairs Officer effective as of July 13, 2020. Pursuant to her employment agreement, Ms. Tregoning is entitled to a base salary of \$410,000 and an annual target bonus equal to 40% of her annual base salary (for 2020 only, the annual bonus is subject to proration based on the number of days she was in active service during fiscal year 2020). Her salary is subject to increase from time to time by our board of directors in its discretion. Ms. Tregoning is eligible to participate in our employee benefit plans generally available to our executive employees, subject to the terms of those plans. The employment agreement also provided for a \$100,000 signing bonus, a promised equity award of stock options subject to the terms of an award agreement and our equity incentive plan and eligibility to participate in a co-invest program for other similarly situated executives.

Ms. Tregoning's employment has no specified term but can be terminated at will by either party. If Ms. Tregoning's employment is terminated by us without cause, or if Ms. Tregoning terminates her employment for good reason (as such terms are defined in her employment agreement), Ms. Tregoning will be entitled to certain payments and benefits in addition to accrued obligations. These payments and benefits include (i) twelve (12) months of salary continuation, (ii) a prorated amount of her target annual bonus for the year of such termination based on the number of days of Ms. Tregoning's service during the year her employment is terminated and (iii) up to twelve (12) months (dependent on COBRA eligibility for such period) of company-sponsored benefits continuation.

Bryan Phillips, J.D. On November 8, 2019, we entered into an employment agreement with Mr. Phillips for the position of Chief Legal Officer effective as of December 2, 2019. As described above, Mr. Phillips resigned as Chief Legal Officer, effective on December 18, 2020, and provided transitional services through January 8, 2021. Pursuant to his employment agreement, Mr. Phillips was entitled to a base salary of \$410,000 and an annual target bonus equal to 40% of his annual base salary. His salary was subject to increase from time to time by our board of directors in its discretion. Mr. Phillips was eligible to participate in our employee benefit plans generally available to our executive employees, subject to the terms of those plans. The employment agreement also provided for a \$170,000 signing bonus, \$200,000 in relocation and commuting expenses (grossed up for any taxes imposed on the amounts reimbursed). Under his employment agreement, Mr. Phillips was also promised an equity award of stock options subject to the terms of an award agreement and our equity incentive plan and eligibility to participate in a co-invest program for other similarly situated executives.

Mr. Phillips's employment had no specified term but could be terminated at will by either party. If Mr. Phillips's employment was terminated by us without cause, or if Mr. Phillips terminated his employment for good reason (as such terms are defined in his employment agreement), Mr. Phillips would be entitled to certain payments and benefits in addition to accrued obligations. These payments and benefits include (i) twelve (12) months of salary continuation, (ii) a prorated amount of his target annual bonus for the year of such termination based on the number of days of Mr. Phillip's service during the year his employment is terminated and (iii) up to twelve (12) months (dependent on COBRA eligibility for such period) of company-sponsored benefits continuation. Mr. Phillips' resignation did not constitute a termination without cause or for good reason and he did not receive the severance payments and benefits described above.

Outstanding Equity Awards at 2020 Fiscal Year-End

The following table sets forth information concerning outstanding equity awards held by each of our named executive officers as of December 31, 2020.

| Name | Option Awards ⁽¹⁾⁽²⁾ | | | | |
|---------------------------------------|---------------------------------|-------------------------------------|---------------------------------------|----------------------------------|------------------------|
| | Number of Securities Underlying | | | | |
| | Vesting Start Date | Unexercised Options Exercisable (#) | Unexercised Options Unexercisable (#) | Option Exercise Price (\$/share) | Option Expiration Date |
| N. Anthony Coles, M.D. ⁽⁵⁾ | 11/27/2018 | 1,615,842 | 1,486,575 | 3.50 | 12/24/2028 |
| | 11/27/2018 | 538,613 | 495,525 | 10.28 | 12/24/2028 |
| | 10/28/2020 ⁽³⁾ | — | 196,335 | 9.88 | 10/28/2030 |
| John Renger, Ph.D. | 4/8/2019 | 200,364 | 280,511 | 3.50 | 04/02/2029 |
| | 4/8/2019 | 66,787 | 93,504 | 10.28 | 04/02/2029 |
| | 10/28/2020 ⁽³⁾ | — | 117,801 | 9.88 | 10/28/2030 |
| Kathleen Tregoning, M.A. | 7/29/2020 | — | 258,232 | 10.05 | 7/29/2030 |
| | 7/29/2020 | — | 86,077 | 14.44 | 7/29/2030 |
| | 12/4/2020 ⁽⁴⁾ | — | 78,229 | 15.45 | 12/4/2030 |
| Bryan Phillips, J.D. | 1/2/2020 ⁽⁵⁾ | — | 349,022 | 4.92 | 02/27/2029 |
| | 1/2/2020 ⁽⁵⁾ | — | 116,340 | 14.44 | 02/27/2029 |

- (1) Unless otherwise noted, shares of stock subject to option awards will vest, if at all, as follows: 25% of the shares subject to the option will vest on the first anniversary of the vesting start date, with the remaining 75% of the shares subject to the option to vest ratably in 36 equal monthly installments thereafter (rounded down to the nearest whole number of shares on each such date) until the award fully vests upon the fourth anniversary of the vesting start date, subject to the named executive officer's continued service.
- (2) With respect to awards granted prior to the consummation of the Business Combination Transaction, vesting of the option awards granted to each of the named executive officers accelerates upon the consummation of a sale event. In addition, Dr. Coles' awards provide that if he is terminated by us without cause or resigns for good reason, then the number of stock options that would have vested during the twelve (12) month period following such termination of employment will become vested as of the date of such termination of employment.
- (3) This award vests with respect to 50% of the option on the second anniversary of the vesting start date, with the remainder vesting in two equal installments thereafter.
- (4) Represents an additional portion of Ms. Tregoning's new hire equity grant.
- (5) Mr. Phillips resigned as Chief Legal Officer, effective on December 18, 2020, and provided transitional services through January 8, 2021. The portion of this option award that was unvested as of the conclusion of Mr. Phillips' transitional services was forfeited and became void.

Other Compensation Arrangements

Severance Policy

We maintain a Severance Benefits Policy for Specified C-Suite Executives, or the Severance Policy, under which each senior executive officer that directly reports to our Chief Executive Officer other than on a temporary basis, or an Eligible Employee, is eligible to receive cash, equity acceleration and benefit continuation severance benefits.

Under the Severance Policy, if an Eligible Employee's employment is terminated by us for a reason other than cause, death or disability, or resigns for good reason within the period that begins three months prior to the occurrence of the first event constituting a sale event and ends on the first anniversary of such event (as such terms are defined in the Severance Policy), then, subject to a release requirement, the Eligible Employee will be entitled to receive the following severance benefits:

- an amount equal to the sum of 12 months of such Eligible Employee's base salary and target bonus in the year the termination of employment occurs, payable in 12 equal monthly installments following such termination;
- acceleration of the vesting of such Eligible Employee's outstanding time-based vesting equity awards; and
- payment continued health coverage required under applicable law for the Eligible Employee and any eligible dependents that were covered under the Company's health care plans immediately prior to the termination date for up to 12 months.

Indemnification Agreements

We entered into indemnification agreements with each of our directors and executive officers. Each indemnification agreement provides for indemnification and advancements by us of certain expenses and costs relating to claims, suits or proceedings arising from his or her service to us or, at our request, service to other entities, as officers or directors to the maximum extent permitted by applicable law.

401(k) Plan

We maintain a tax-qualified retirement plan that provides eligible employees, including our named executive officers, with an opportunity to save for retirement on a tax-advantaged basis. Plan participants are able to defer eligible compensation subject to applicable annual Code limits. Employees' pre-tax or Roth contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. Employees are immediately and fully vested in their contributions. We match each participant's contribution up to a maximum of 6% of their eligible compensation. Our 401(k) plan is intended to be qualified under Section 401(a) of the Code with our 401(k) plan's related trust intended to be tax exempt under Section 501(a) of the Code.

Health and Welfare Benefits

Our named executive officers are eligible to participate in our health and welfare plans that are generally available to all of our employees, including medical, dental and vision benefits, short-term and long-term disability insurance and life insurance.

Compensation Risk Assessment

We believe that although a portion of the compensation provided to our executive officers is performance-based, our executive compensation program does not encourage excessive or unnecessary risk taking. This is primarily because our compensation programs are designed to create a greater focus on long-term value creation while balancing the need to meet shorter-term goals. The framework and goals of our annual performance-based incentive plan are consistent for all employees with a maximum cap for all payouts. Furthermore, all compensation decisions for our executive officers are approved by our compensation committee.

In addition, our compensation committee is responsible for reviewing and approving the design, goals and payouts under our annual bonus plan and equity incentive program for our executive officers. Our compensation committee directly engages an independent compensation consultant who advises on market competitive and best practices, as well as any potential risks related to our compensation programs. This includes pay mix, compensation vehicles, pay for performance alignment, performance measures and goals, payout maximums, vesting periods and compensation committee oversight and independence. Based on all the factors mentioned, we believe our compensation policies, programs and practices do not create risks that are reasonably likely to have a material adverse effect on the company.

Director Compensation

Retainers, Meeting Fees and Expenses

Dr. Coles, our Chief Executive Officer, does not receive any compensation from us for his services on our board of directors as Chairperson. Dr. Coles' compensation during fiscal year 2020, for his service as Executive Chairperson and then as Chief Executive Officer, is set forth above in "Executive Compensation—2020 Summary Compensation Table." Each of our remaining non-employee directors is eligible to receive any of the following forms of compensation, as applicable, under our non-employee director compensation policy.

Non-Employee Director Compensation Policy

Pursuant to our non-employee director compensation policy, as amended, each non-employee director will receive an annual retainer of \$50,000, an additional annual retainer of \$25,000 for serving as the lead independent director, a \$15,000 annual retainer for serving as the chair of the audit, compensation, nominating and corporate governance or science and technology committee and a \$7,500 annual retainer for serving on each such committee, to be paid quarterly in arrears and prorated based on the number of actual days served on the board of directors or applicable committee. In addition, each non-employee director will receive, on the date of our annual meeting of stockholders, an annual grant of a stock option to purchase up to 46,000 shares of common stock that vests in full on the earlier of the one-year anniversary of the grant date or the next annual meeting of stockholders, and each new non-employee director will receive a stock option to purchase up to 92,000 shares of common stock, vesting in 36 monthly installments through the third anniversary of the grant date. The aggregate amount of compensation, including both equity compensation and cash compensation, paid to any non-employee director in a calendar year period shall not exceed \$750,000 (or \$1,000,000 for the calendar year in which the non-employee director is initially elected or appointed to the board of directors).

2020 Director Compensation Table

The following table presents the total compensation for each person who served as a non-employee director of our board of directors during fiscal year 2020.

| Name | Fees Paid or Earned in Cash (\$)(1) | Total (\$) |
|---------------------------------------|-------------------------------------|------------|
| Morris Birnbaum, M.D., Ph.D. | 10,156 | 10,156 |
| Marijn Dekkers, Ph.D.(2) | 65,000 | 65,000 |
| Doug Giordano, M.B.A. | 11,481 | 11,481 |
| Christopher Gordon, M.B.A. | 11,481 | 11,481 |
| Adam Koppel, M.D., Ph.D. | 11,481 | 11,481 |
| Norbert Riedel, Ph.D.(3) | 76,916 | 76,916 |
| Gabrielle Sulzberger, J.D., M.B.A.(4) | 66,325 | 66,325 |
| Ruth McKernan, Ph.D.(5) | 4,375 | 4,375 |

(1) Amounts reflected cash retainers prorated for services following the Business Combination Transaction.

(2) As of December 31, 2020, Dr. Dekkers held 14,270 unvested restricted stock units.

(3) As of December 31, 2020, Dr. Riedel held 28,540 unvested restricted stock units.

(4) As of December 31, 2020, Ms. Sulzberger held 28,540 unvested restricted stock units.

(5) Dr. McKernan joined our board of directors on December 4, 2020, and her cash retainer and fees were prorated based on her service during 2020. In connection with her appointment, in accordance with the non-employee director compensation policy, Dr. McKernan was awarded an initial grant of 80,945 stock options. However, although this grant was deemed to be granted in respect of Dr. McKernan's commencement of service in 2020, this grant was not effective until January 4, 2021, the first trading day of the following month, and accordingly, will be reflected in the director compensation table for 2021. These options vest and become exercisable in thirty-six (36) monthly installments over three (3) years and are subject to full acceleration upon the occurrence of a change in control (as such term is defined in the 2020 Plan).

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Security ownership of certain beneficial owners

The following table sets forth certain information known to us regarding the beneficial ownership of our common stock as of March 15, 2021 for each of our named executive officers, executive officers, directors, all executive officers and directors as a group and each person known by us to be the beneficial owner of more than 5% of our common stock. Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power over that security. Under those rules, beneficial ownership includes securities that the individual or entity has the right to acquire, such as through the exercise of warrants or stock options or the vesting of restricted stock units, within 60 days of March 15, 2021. Shares subject to warrants or options that are currently exercisable or exercisable within 60 days of March 15, 2021 or subject to restricted stock units that vest within 60 days of March 15, 2021 are considered outstanding and beneficially owned by the person holding such warrants, options or restricted stock units for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Except as noted by footnote, and subject to community property laws where applicable, based on the information provided to us, we believe that the persons and entities named in the table below have sole voting and investment power with respect to all shares shown as beneficially owned by them. Unless otherwise noted, the business address of each of our directors and executive officers is 222 Jacobs Street, Suite 200, Cambridge, MA 02141. The percentage of beneficial ownership of our shares of common stock is calculated based on 127,277,270 shares of common stock outstanding as of March 15, 2021.

| Name and Address of Beneficial Owners | Number of Shares | % |
|---|------------------|-------------|
| N. Anthony Coles, M.D.(1) | 2,499,167 | 2.0% |
| Mark Bodenrader(1) | 30,699 | * |
| Kenneth DiPietro(2) | 229,714 | * |
| Bryan Phillips, J.D.(1) | 116,340 | * |
| John Renger, Ph.D.(1) | 333,939 | * |
| Raymond Sanchez, M.D.(1) | 434,337 | * |
| Kathleen Tregoning, M.A. | — | — |
| Kathy Yi, M.B.A.(1) | 272,537 | * |
| Deborah Baron, M.B.A. | — | — |
| Morris Birnbaum, M.D., Ph.D. | — | — |
| Marijn Dekkers, Ph.D.(4) | 661,890 | * |
| Doug Giordano, M.B.A. | — | — |
| Christopher Gordon, M.B.A.(5) | — | — |
| Adam Koppel, M.D., Ph.D.(6) | — | — |
| Ruth McKernan, Ph.D., CBE, FMedSci(1) | 8,993 | * |
| Deval Patrick, J.D.(1) | 7,532 | * |
| Norbert Riedel, Ph.D.(3) | 28,540 | * |
| Gabrielle Sulzberger, J.D., M.B.A.(3) | 14,270 | * |
| <i>All directors and officers as a group (17 persons)</i> | <i>4,521,618</i> | <i>3.6%</i> |
| <i>Five Percent Holders:</i> | | |
| BC Perception Holdings, LP(7) | 60,632,356 | 47.6% |
| Pfizer Inc.(8) | 27,349,211 | 21.5% |

* Less than 1%

(1) Consists solely of options exercisable within 60 days of March 15, 2021.

(2) Consists of (i) 215,444 options exercisable within 60 days of March 15, 2021 and (ii) 14,270 shares of common stock.

(3) Consists solely of shares of common stock.

- (4) Consists of 28,540 shares of common stock held directly by Dr. Dekkers and 633,350 shares of common stock held by Novalis LifeSciences Investments I, L.P., or Novalis LifeSciences. Dr. Dekkers, the Manager of the general partner of Novalis LifeSciences, has sole voting and dispositive power over the shares held by Novalis LifeSciences and, as a result, may be deemed to share beneficial ownership of the shares held by Novalis LifeSciences. The address of Novalis LifeSciences is 1 Liberty Lane E, Suite 100, Hampton, New Hampshire 03842.
- (5) Does not include shares of common stock held by Bain Investor. Mr. Gordon, who is a member of our board of directors, is a managing director of Bain Capital Investors, LLC, or BCI, the ultimate general partner of Bain Investor, and as a result, and by virtue of the relationships described in footnote 7 below, may be deemed to share beneficial ownership of the shares held by Bain Investor. The address for Mr. Gordon is c/o Bain Capital Private Equity, LP, 200 Clarendon Street, Boston, MA 02116.
- (6) Does not include shares of common stock held by Bain Investor. Dr. Koppel, who is a member of our board of directors, is a managing director of Bain Capital Life Sciences Investors, LLC, or BCLSI, which is the general partner of Bain Capital Life Sciences Fund, LP, or BCLSF, and, as a result, may be deemed to share beneficial ownership of the shares held by Bain Investor. The address for Dr. Koppel is c/o Bain Capital Life Sciences, LP, 200 Clarendon Street, Boston, MA 02116.
- (7) Bain Capital Investors, LLC, or BCI, is the ultimate general partner of Bain Investor. As a result, BCI may be deemed to exercise voting and dispositive power with respect to the shares reported in the table above. Voting and investment decisions with respect to securities held by Bain Investor are made by the managing directors of BCI, of whom there are three or more and none of whom individually has the power to direct such decisions. The address of Bain Investor is c/o Bain Capital Private Equity, LP, 200 Clarendon Street, Boston, Massachusetts 02116.
- (8) Ms. Baron and Dr. Birnbaum, each of whom is a member of our board of directors, are each employed by Pfizer. Neither Ms. Baron nor Dr. Birnbaum has voting or dispositive power over the shares held by Pfizer and each of them disclaims beneficial ownership of all such shares. The address of Pfizer is 235 East 42nd Street, New York, New York 10017.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth information as of December 31, 2020 regarding shares of common stock that may be issued under our equity compensation plans.

| | Number of securities to be issued upon exercise of outstanding options and vesting of outstanding restricted stock units (#) | Weighted-average exercise price of outstanding options (\$) | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column) |
|---|--|---|---|
| Equity compensation plans approved by security holders ⁽¹⁾ | 12,536,018 | (2)\$ 6.37 | 13,170,585 ^{(3) (4)} |
| Equity compensation plans not approved by security holders | — | — | — |
| Total | 12,536,018 | \$ 6.37 | 13,170,585 |

- (1) Includes the Cerevel Therapeutics Holdings, Inc. 2020 Equity Incentive Plan, or the 2020 Plan, and the Cerevel Therapeutics Holdings, Inc. Employee Stock Purchase Plan, or the ESPP.
- (2) Includes 12,464,668 shares of common stock issuable upon the exercise of outstanding stock options and 71,350 shares of common stock issuable upon settlement of outstanding restricted stock units.
- (3) As of December 31, 2020, there were 11,514,661 shares available for grant under the 2020 Plan and 1,655,924 shares available for grants under the ESPP.

- (4) The 2020 Plan provides that the number of shares of common stock reserved and available for issuance under the 2020 Plan shall be cumulatively increased on January 1 of each year. The number of shares of common stock increased each year will be equal to the lesser of: (i) 4% of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or (ii) such lesser amount as determined by our board of directors. The ESPP provides that the number of shares of common stock reserved and available for issuance under the ESPP shall be cumulatively increased on January 1 of each year. The number of shares of common stock increased each year will be equal to the lesser of: (i) 1% of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or (ii) such lesser amount as determined by our board of directors.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Other than the compensation agreements and other arrangements described under the sections entitled “*Executive Compensation*” and “*Director Compensation*” in this Annual Report and the transactions described below, since our inception, there has not been and there is not currently proposed, any transaction or series of similar transactions to which:

- we were, or will be, a participant;
- the amount involved exceeded, or will exceed, \$120,000; and
- in which any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

Amended and Restated Registration and Shareholder Rights Agreement

On the Closing Date, Perceptive Shareholders, Jake Bauer, Chad Robins, Todd Wider, Bain Investor and Pfizer entered into an Amended and Restated Registration and Shareholder Rights Agreement, as amended by that certain Waiver, dated as of January 20, 2021, or the Registration and Shareholder Rights Agreement, pursuant to which, among other things, the Perceptive Shareholders, Bain Investor and Pfizer agreed not to effect any sale or distribution of any of our equity securities held by any of them during the lock-up period described therein and will be granted certain registration rights and will be granted certain preemptive rights with respect to their respective shares of common stock, and Bain Investor and Pfizer agree to cast their votes such that our board of directors is constituted as set forth in the Business Combination Agreement and the Registration and Shareholder Rights Agreement and will have certain rights to nominate directors to serve on our board of directors, in each case, on the terms and subject to the conditions therein.

In particular, the Registration and Shareholder Rights Agreement provides for the following registration rights:

- *Demand registration rights.* At any time after the Closing Date, we will be required, upon the written request of Bain Investor, Pfizer or the Perceptive Shareholders, or the Sponsor Holders, to file a registration statement and use reasonable best efforts to effect the registration of all or part of their registrable securities. We are not obligated to effect any demand registration if a demand registration or piggyback registration was declared effective or an underwritten shelf takedown was consummated within the preceding 90-day period.
- *Shelf registration rights.* At any time after the Closing Date, we will be required, upon the written request of any Sponsor Holder, to file a shelf registration statement pursuant to Rule 415 of the Securities Act and use reasonable best efforts to effect the registration of all or a portion of their registrable securities, provided that the Perceptive Shareholders shall be deemed to have given such a request as of the date of the Registration and Shareholder Rights Agreement, Messrs. Bauer, Robins and Wider shall be entitled to include their registrable securities on a shelf registration statement filed in connection with such request and we may satisfy such request by including such registrable securities on the registration statement to be filed in respect of the PIPE Financing. Promptly upon receipt of a shelf registration request, we shall deliver a written notice to all other Sponsor Holders and shall offer each such Sponsor Holder the opportunity to include its registrable securities in such shelf registration statement. At any time we have

an effective shelf registration statement with respect to a Sponsor Holder's registrable securities, such Sponsor Holder may make a written request to effect a public offering, including pursuant to an underwritten shelf takedown, provided that we are not obliged to effect any underwritten shelf takedown if a demand registration or piggyback registration was declared effective or an underwritten shelf takedown was consummated within the preceding 90-day period.

- *Piggyback registration rights.* At any time after the Closing Date, if we propose to file a registration statement to register any of our equity securities under the Securities Act or to conduct a public offering, either for our own account or for the account of any other person, subject to certain exceptions, the Sponsor Holders are entitled to include their registrable securities in such registration statement.
- *Expenses and indemnification.* All fees, costs and expenses of underwritten registrations will be borne by us and underwriting discounts and selling commissions will be borne by the holders of the shares being registered. The Registration and Shareholder Rights Agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and holders of registrable securities are obligated to indemnify us for material misstatements or omissions attributable to them.
- *Registrable securities.* Our securities shall cease to be registrable securities when a registration statement with respect to the sale of such securities shall have become effective under the Securities Act and such securities shall have been disposed of in accordance with such registration statement, such securities shall have been transferred pursuant to Rule 144 of the Securities Act or such securities shall have ceased to be outstanding.
- *Lock-up.* Notwithstanding the foregoing, each Sponsor Holder and Messrs. Bauer, Robins and Wider shall not transfer any of our securities for 180 days following the Closing Date, subject to certain customary exceptions, and each Sponsor Holder, we and our directors and officers shall, if requested, deliver a customary lock-up agreement in connection with any underwritten public offering, subject to certain customary exceptions.

Moreover, under the Registration and Shareholder Rights Agreement, each of Bain Investor and Pfizer agrees to cast all votes to which such entities are entitled such that our board of directors shall consist of eleven (11) directors, which will be divided into three classes (Class I, II and III) with Class I consisting of three (3) directors and Class II and III each consisting of four (4) directors. For so long as Bain Investor holds an amount of our equity securities that is equal to 50% or more of the amount of securities it held at the Closing, it shall be entitled to nominate four (4) directors, with such right (i) decreasing to three directors at such time when Bain Investor holds equal to or greater than 35% but less than 50% of the amount of securities it held at the Closing; (ii) decreasing to two directors at such time when Bain Investor holds equal to or greater than 20% but less than 35% of the amount of securities it held at the Closing; (iii) decreasing to one director at such time when Bain Investor holds equal to or greater than 5% but less than 20% of the amount of securities it held at the Closing; and (iv) terminating at such time when Bain Investor holds less than 5% of the amount of securities it held at the Closing. For so long as Pfizer holds an amount of our equity securities that is equal to 50% or more of the amount of securities it held at the Closing, it shall be entitled to nominate two directors, with such right (i) decreasing to one director at such time when Pfizer holds equal to or greater than 20% but less than 50% of the amount of securities it held at the Closing; and (ii) terminating at such time when Pfizer holds less than 20% of the amount of securities it held at the Closing. Additionally, for so long as Bain Investor holds an amount of our equity securities that is equal to 60% or more of the amount of securities it held at the Closing, it shall be entitled, with the prior written consent of Pfizer (which consent may not be unreasonably withheld, conditioned or delayed), to nominate two unaffiliated directors to our board of directors. Finally, for so long as Pfizer holds at least 20% of the amount of securities it held at the Closing, Pfizer has the right to designate one non-voting observer to attend each meeting of our board of directors or its committees. As of the date of this Annual Report, Dr. Coles was nominated to serve on our board of directors as our chief executive officer; Ms. Baron and Dr. Birnbaum were nominated to serve on our board of directors by Pfizer; Mr. Gordon, Dr. Koppel, Dr. McKernan and Ms. Sulzberger were nominated to serve on our board of directors by Bain Investor; Drs. Dekkers and Riedel were nominated to serve on our board of directors as unaffiliated directors by Bain Investor, subject to the prior written consent of Pfizer; and Mr. Giordano was nominated to serve on our board of directors as the director mutually agreed by us and Sponsor pursuant to the Business Combination Agreement.

In addition, under the Registration and Shareholder Rights Agreement, in the event that we propose to issue any capital stock, subject to certain customary exceptions, or the New Securities, each Sponsor Holder has the right to purchase, in lieu of the person to whom we proposed to issue such New Securities, its pro rata proportion of such New Securities. Such preemptive rights will terminate on the earlier to occur of the seventh anniversary of the Closing and (i) in the case of Bain Investor, the date on which Bain Investor beneficially owns less than 50% of the amount of securities it held at the Closing, (ii) in the case of Pfizer, the date on which Pfizer beneficially owns less than 50% of the amount of securities it held at the Closing or Bain Investor beneficially owns less than 50% of the amount of securities it held at the Closing and (iii) in the case of the Perceptive Shareholders, the date on which the Perceptive Shareholders beneficially own less than 80% of the amount of securities they held at the Closing or Bain Investor beneficially owns less than 50% of the amount of securities it held at the Closing.

Finally, pursuant to the Registration and Shareholder Rights Agreement, to the fullest extent permitted by law, the doctrine of corporate opportunity and any analogous doctrine will not apply to (i) any Sponsor Holder, (ii) any member of our board of directors, non-voting observer or any officer who is not our or any of our subsidiaries' full-time employee or (iii) any affiliate, partner, advisory board member, director, officer, manager, member or shareholder of any Sponsor Holder who is not our or any of our subsidiaries' full-time employee (any such person listed in (i), (ii) or (iii) being referred to herein as an External Party). Therefore, we will renounce any interest or expectancy in, or being offered an opportunity to participate in, business opportunities that are from time to time presented to any External Party.

Certain Relationships and Related Person Transactions—ARYA

Class B Ordinary Shares

On March 2, 2020, the Sponsor paid \$25,000 to cover certain offering costs of ARYA in consideration of 3,593,750 Class B ordinary shares. On June 4, 2020, ARYA effected share capitalization resulting in the initial shareholders holding 3,737,500 Class B ordinary shares. All shares and the associated amounts have been retroactively restated to reflect the share capitalization. The Sponsor has agreed to forfeit up to 487,500 Class B ordinary shares to the extent that the over-allotment option was not exercised in full by the underwriters in the initial public offering. The forfeiture would have been adjusted to the extent that the over-allotment option was not exercised in full by the underwriters in the initial public offering so that the Class B ordinary shares would represent 20.0% of ARYA's issued and outstanding ordinary shares (excluding the private placement shares and assuming the initial shareholders did not purchase any units in the initial public offering) after the initial public offering. On June 9, 2020, the underwriters in the initial public offering exercised their over-allotment option; thus, these Class B ordinary shares were no longer subject to forfeiture.

The initial shareholders agreed, subject to limited exceptions, not to transfer, assign or sell any of their Class B ordinary shares until the earlier to occur of: (A) one year after the completion of an initial business combination and (B) subsequent to the initial business combination, (x) if the closing price of ARYA's Class A ordinary shares equals or exceeds \$12.00 per share (as adjusted for share splits, share capitalizations, reorganizations, recapitalizations and the like) for any 20 trading days within any 30-trading day period commencing at least 150 days after the initial Business Combination, or (y) the date on which ARYA completes a liquidation, merger, share exchange, reorganization or other similar transaction that results in all of the Public Shareholders having the right to exchange their ordinary shares for cash, securities or other property.

Private Placement Units

Simultaneously with the closing of the initial public offering, the Sponsor purchased an aggregate of 499,000 private placement units at a price of \$10.00 per private placement unit in a private placement, generating gross proceeds of approximately \$5.0 million.

The private placement units (including the private placement shares, the private placement warrants (as defined below) and Class A ordinary shares issuable upon exercise of such warrants) will not be transferable or salable until 30 days after the completion of an initial business combination.

Each whole private placement warrant is exercisable for one whole Class A ordinary share at a price of \$11.50 per share. The proceeds from the private placement units were added to the proceeds from the initial public offering held in the Trust Account. If ARYA does not complete an initial business combination within the Combination Period, the private placement units and the underlying securities will expire worthless. The private placement warrants will be non-redeemable and exercisable on a cashless basis so long as they are held by the Sponsor or its permitted transferees.

Related Party Loans

On March 2, 2020, Sponsor agreed to loan ARYA an aggregate of up to \$300,000 to cover expenses related to ARYA's initial public offering pursuant to a promissory note, or the Note. This loan was non-interest bearing and payable on the earlier of December 31, 2020 or the completion of the initial public offering. Sponsor paid an aggregate of approximately \$250,000 to cover for expenses on ARYA's behalf under the Note. On June 8, 2020, ARYA repaid the Note in full.

Administrative Services Agreement

Effective June 4, 2020, ARYA entered into an agreement to pay monthly expenses of \$10,000 for office space, administrative services and support services to Sponsor. The agreement terminates upon the earlier of the completion of a business combination or the liquidation of ARYA. ARYA incurred approximately \$39,000 in general and administrative expenses for the period from February 20, 2020 (inception) through September 30, 2020 pursuant to this agreement. As of October 27, 2020, ARYA completed the Business Combination and at that time ceased paying administrative support fees.

ARYA Registration and Shareholder Rights Agreement

ARYA has previously entered into a registration and shareholder rights agreement pursuant to which its initial shareholders and their permitted transferees, if any, were entitled to certain registration rights with respect to the private placement units, the private placement shares, the private placement warrants, the securities issuable upon conversion of working capital loans (if any) and the Class A ordinary shares issuable upon exercise of the foregoing and upon conversion of the founder shares. This agreement was amended and restated upon the signing of the Registration and Shareholder Rights Agreement.

PIPE Financing

At Closing, Perceptive PIPE Investor purchased \$30,000,000 of our common stock in a private placement. The funds from such private placement were used as part of the consideration to our equityholders in connection with the Business Combination.

Certain Relationships and Related Person Transactions—Cerevel

Pfizer License Agreement

On August 13, 2018, Cerevel entered into the Pfizer License Agreement with Pfizer, a holder of 5% or more of its capital stock, pursuant to which Cerevel was granted an exclusive, sublicensable, worldwide license under certain Pfizer patent rights, and a non-exclusive, sublicensable, worldwide license under certain Pfizer know-how, to develop, manufacture and commercialize certain compounds and products, which currently constitute the entirety of its asset portfolio, subject to the terms and conditions of the Pfizer License Agreement. See the section entitled "*Business—Pfizer License Agreement*" for additional details on the Pfizer License Agreement.

As partial consideration for the licensed assets, Cerevel issued Pfizer 3,833,333.33 shares of Series A-2 Preferred Stock with an estimated fair value of \$100.4 million, or \$26.20 per share. See the section entitled "*—Series A-1 Preferred Stock, Series A-2 Preferred Stock and Series A Common Stock Financing*" below. Cerevel also reimbursed \$11.0 million of direct expenses related to the Pfizer License Agreement, bringing the total initial consideration to \$111.4 million.

Series A-1 Preferred Stock, Series A-2 Preferred Stock and Series A Common Stock Financing

On August 13, 2018, in connection with the Pfizer License Agreement, Cerevel entered into the Stock Purchase Agreement pursuant to which Cerevel sold (i) Bain Investor an aggregate of (x) 6,900,000 shares of Series A-1 Preferred Stock at a purchase price of \$10.00 per share and (y) 4,600,000 shares of Series A Common Stock at a purchase price of \$10.00 per share, and (ii) Pfizer 3,833,333.33 shares of Series A-2 Preferred Stock in consideration for the transactions contemplated by the Pfizer License Agreement (see the section entitled “—*Pfizer License Agreement*” above). In July 2019, Cerevel issued and sold an aggregate of 3,450 shares of its Series A-1 Preferred Stock and 2,300 shares of its Series A Common Stock to Bain Investor at a purchase price of \$10.00 per share, for aggregate consideration of \$57,500. In December 2019, Cerevel issued and sold an aggregate of 4,204,075 shares of Series A-1 Preferred Stock and 1,795,925 shares of Series A Common Stock to Bain Investor at a purchase price of \$10.00 per share, for aggregate consideration of \$60.0 million. In July 2020, Cerevel issued and sold an aggregate of 1,750,000 shares of Series A-1 Preferred Stock and 750,000 shares of Series A Common Stock to Bain Investor at a purchase price of \$10.00 per share, for aggregate consideration of \$25.0 million.

Upon the closing of the Business Combination Transaction, Pfizer’s 3,833,333.33 shares of Series A-2 Preferred Stock were converted into 26,149,211 shares of common stock after giving effect to the anti-dilution protections and the Exchange Ratio established by the Business Combination and Bain Investors’ Series A-1 Preferred Stock and Series A-1 Common Stock were converted into 52,461,943 shares of Common Stock after giving effect to the exchange feature that was redeemed related to the July Additional Financing Shares and the Exchange Ratio established in the Business Combination.

Stock Purchase Agreement

The Stock Purchase Agreement that Cerevel entered into in connection with its initial financing provided, among other things, that:

- if Cerevel has not received \$350.0 million in aggregate gross cash proceeds in exchange for equity interests, which such amount includes the proceeds received in the initial financing, subsequent financings and from this transaction and is referred to as the Financing Threshold, by September 24, 2022, Bain Investor shall be required to purchase that amount of shares of its common stock such that the Financing Threshold is met;
- at any time prior to the Financing Threshold having been met, its cash balance is equal to or less than \$10.0 million, Bain Investor shall be required to purchase an amount of additional shares of its Series A-1 Preferred Stock and Series A Common Stock that allows Cerevel to maintain a reasonable level of cash to fund its operations in accordance with the previously agreed development plan for at least six months; and
- until the time the Financing Threshold is met, Bain Investor has the right to purchase up to that amount of shares of Series A-1 Preferred Stock and Series A Common Stock at a purchase price of \$10.00 per share that results in the Financing Threshold having been met.

Pursuant to the Business Combination Agreement, Cerevel, Bain Investor and Pfizer terminated the Stock Purchase Agreement at the Closing.

Stockholders’ Agreement

In connection with its initial financing, Cerevel entered into a stockholders’ agreement with Bain Investor and Pfizer, or the Stockholders’ Agreement. The Stockholders’ Agreement, among other things, provided for the appointment of Cerevel directors by Bain Investor and Pfizer and certain waivers of the doctrine of corporate opportunity. Pursuant to the Business Combination Agreement, Cerevel, Bain Investor and Pfizer terminated the Stockholders’ Agreement at the Closing.

Registration Rights Agreement

In connection with the initial financing, Cerevel entered into a registration rights agreement with Bain Investor and Pfizer, or the Registration Rights Agreement. The Registration Rights Agreement provided certain registration rights to Bain Investor and Pfizer. Pursuant to the Business Combination Agreement, Cerevel, Bain Investor and Pfizer terminated the Registration Rights Agreement at the Closing.

Management Agreement

In connection with the initial financing, Cerevel entered into a management agreement, or the Management Agreement, with Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP, which are entities related to Bain Investor. The Management Agreement, among other things:

- obligated Cerevel to pay such entities a non-refundable quarterly fee of \$250,000; and
- obligated Cerevel to pay such entities, in the aggregate, a \$5.0 million fee upon the completion of a qualified public offering or change of control transaction, less any quarterly fees previously paid to such entities.

Cerevel paid the remaining approximately \$3.0 million of management fees payable under the Management Agreement upon the closing of the Business Combination. No additional fees shall be payable pursuant to the Management Agreement following the closing of the Business Combination. Following the Closing of the Business Combination, New Cerevel entered into a new management agreement with Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP providing for the expense reimbursement and indemnification of such entities.

Consulting Agreement

Prior to his joining Cerevel as its Chief Human Resources Officer, Cerevel was party to a consulting agreement with Ken DiPietro pursuant to which Cerevel paid Mr. DiPietro approximately \$250,000 in fees for services and expense reimbursement and granted him 5,000 options to purchase its common stock in consideration for human resources planning services. Such consulting agreement terminated automatically once Mr. DiPietro joined Cerevel as an employee in April 2019.

Policies and Procedures for Related Person Transactions

Our written related person transaction policy sets forth the following policies and procedures for the review and approval or ratification of related person transactions.

A “Related Person Transaction” is a transaction, arrangement or relationship in which we or any of our subsidiaries was, is or will be a participant, the amount of which involved exceeds \$120,000, and in which any related person had, has or will have a direct or indirect material interest. A “Related Person” means:

- any person who is, or at any time during the applicable period was, one of our officers or one of our directors;
- any person who is known by us to be the beneficial owner of more than five percent (5%) of our voting stock;
- any immediate family member of any of the foregoing persons, which means any child, stepchild, parent, stepparent, spouse, sibling, mother-in-law, father-in-law, daughter-in-law, brother-in-law or sister-in-law of a director, officer or a beneficial owner of more than five percent (5%) of its voting stock, and any person (other than a tenant or employee) sharing the household of such director, officer or beneficial owner of more than five percent (5%) of its voting stock; and
- any firm, corporation or other entity in which any of the foregoing persons is a partner or principal or in a similar position or in which such person has a ten percent (10%) or greater beneficial ownership interest.

We have policies and procedures designed to minimize potential conflicts of interest arising from any dealings we may have with our affiliates and to provide appropriate procedures for the disclosure of any real or potential conflicts of interest that may exist from time to time. Specifically, pursuant to its charter, the audit committee has the responsibility to review related person transactions.

Item 14. Principal Accounting Fees and Services.

The information required by this Item 14 will be included in our Definitive Proxy Statement to be filed with the SEC with respect to our 2021 Annual Meeting of Stockholders and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

- (a)(1) For a list of the financial statements included herein, see Index to the Consolidated Financial Statements on page F-1 of this Annual Report, incorporated into this Item by reference.
- (2) Financial statement schedules have been omitted because they are either not required or not applicable or the information is included in the consolidated financial statements or the notes thereto. Those financial statement schedules required to be filed by Item 8 of this form, and by paragraph (b) below.

(3) Exhibits

The exhibits required by Item 601 of Regulation S-K and Item 15(b) of this Annual Report are listed in the Exhibit Index below. The exhibits listed in the Exhibit Index are incorporated by reference herein.

(b) Exhibit Index

| Exhibit Number | Description |
|-------------------|---|
| 2.1*† | <u>Business Combination Agreement, dated as of July 29, 2020, by and among ARYA Sciences Acquisition Corp II, Cassidy Merger Sub 1, Inc. and Cerevel Therapeutics, Inc.</u> |
| 2.2* | <u>Amendment No. 1 to Business Combination Agreement, dated as of October 2, 2020, by and between ARYA Sciences Acquisition Corp II and Cerevel Therapeutics, Inc.</u> |
| 3.1* | <u>Certificate of Incorporation of Cerevel Therapeutics Holdings, Inc.</u> |
| 3.2* | <u>By-laws of Cerevel Therapeutics Holdings, Inc.</u> |
| 4.1 | <u>Warrant Agreement between Continental Stock Transfer & Trust Company and ARYA Sciences Acquisition Corp II, dated June 9, 2020 (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed by the Registrant on June 9, 2020).</u> |
| 4.2 | <u>Specimen Warrant Certificate (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-1 filed by the Registrant on May 29, 2020).</u> |
| 4.3* | <u>Description of the Registrant's securities registered pursuant to Section 12 of the Securities and Exchange Act of 1934, as amended.</u> |
| 10.1* | <u>Form of Subscription Agreement</u> |
| 10.2 | <u>Subscription Agreement, by and between ARYA Sciences Acquisition Corp II and BC Perception Holdings, LP, dated July 29, 2020 (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed by the Registrant on July 30, 2020).</u> |
| 10.3 | <u>Amended and Restated Registration and Shareholder Rights Agreement, dated October 27, 2020, by and among Cerevel Therapeutics Holdings, Inc. and the stockholders party thereto (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020).</u> |
| 10.4 | <u>Waiver, dated January 20, 2021, by and among Cerevel Therapeutics Holdings, Inc. and the investors party thereto (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Registrant on January 21, 2021).</u> |
| 10.5†† | <u>License Agreement, by and between Cerevel Therapeutics, LLC (f/k/a Perception OpCo, LLC) and Pfizer Inc., dated August 13, 2018 (incorporated by reference to Exhibit 10.10 to the Registration Statement on Form S-4 filed by the Registrant on October 2, 2020).</u> |

- 10.6 [Lease Agreement, by and between Cerevel Therapeutics, LLC and DW Propco JK, LLC, dated July 3, 2019, as amended on September 1, 2020 \(incorporated by reference to Exhibit 10.6 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.7*# [Cerevel Therapeutics Holdings, Inc. 2020 Equity Incentive Plan.](#)
- 10.8# [Forms of Award Agreements under the Cerevel Therapeutics Holdings, Inc. 2020 Equity Incentive Plan \(incorporated by reference to Exhibit 10.8 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.9# [Cerevel Therapeutics Holdings, Inc. 2020 Amended and Restated Employee Stock Purchase Plan \(incorporated by reference to Exhibit 99.3 to the Registration Statement on Form S-8 filed by the Registrant on January 4, 2021\).](#)
- 10.10# [Employment Agreement, dated November 23, 2018, by and between Cerevel Therapeutics, LLC and N. Anthony Coles, and amendments thereto \(incorporated by reference to Exhibit 10.10 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.11# [Employment Agreement, dated November 26, 2018, by and between Cerevel Therapeutics, LLC and Ramiro Sanchez, and amendment thereto \(incorporated by reference to Exhibit 10.11 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.12# [Employment Agreement, dated March 16, 2019, by and between Cerevel Therapeutics, LLC and John Renger \(incorporated by reference to Exhibit 10.12 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.13# [Senior Executive Cash Incentive Bonus Plan \(incorporated by reference to Exhibit 10.13 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.14# [Severance Benefits Policy for Specified C-Suite Executives \(incorporated by reference to Exhibit 10.14 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.15# [Non-Employee Director Compensation Policy, as amended \(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Registrant on December 9, 2020\).](#)
- 10.16# [Form of Indemnification Agreement \(Directors\) \(incorporated by reference to Exhibit 10.16 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.17# [Form of Indemnification Agreement \(Officers\) \(incorporated by reference to Exhibit 10.17 to the Current Report on Form 8-K filed by the Registrant on November 2, 2020\).](#)
- 10.18# [Offer Letter, dated August 18, 2019, by and between Cerevel Therapeutics, LLC and Mark Bodenrader \(incorporated by reference to Exhibit 10.18 to the Quarterly Report on Form 10-Q filed by the Registrant on November 16, 2020\).](#)
- 10.19# [Employment Agreement, dated April 1, 2019, by and between Cerevel Therapeutics, LLC and Kenneth DiPietro \(incorporated by reference to Exhibit 10.19 to the Quarterly Report on Form 10-Q filed by the Registrant on November 16, 2020\).](#)
- 10.20# [Employment Agreement, dated June 25, 2019, by and between Cerevel Therapeutics, LLC and Orly Mishan \(incorporated by reference to Exhibit 10.20 to the Quarterly Report on Form 10-Q filed by the Registrant on November 16, 2020\).](#)
- 10.21# [Employment Agreement, dated November 8, 2019, by and between Cerevel Therapeutics, LLC and Bryan Phillips \(incorporated by reference to Exhibit 10.21 to the Quarterly Report on Form 10-Q filed by the Registrant on November 16, 2020\).](#)
- 10.22# [Employment Agreement, dated July 7, 2020, by and between Cerevel Therapeutics, LLC and Kathleen Tregoning \(incorporated by reference to Exhibit 10.22 to the Quarterly Report on Form 10-Q filed by the Registrant on November 16, 2020\).](#)

| | |
|----------|---|
| 10.23# | <u>Employment Agreement, dated May 9, 2019, by and between Cerevel Therapeutics, LLC and Kathy Yi (incorporated by reference to Exhibit 10.23 to the Quarterly Report on Form 10-Q filed by the Registrant on November 16, 2020).</u> |
| 16.1 | <u>Letter dated November 20, 2020 from Withum to the SEC (incorporated by reference to Exhibit 16.1 to the Current Report on Form 8-K filed by the Registrant on November 20, 2020).</u> |
| 21.1 | <u>List of subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 to the Registration Statement on Form S-1 filed by the Registrant on November 25, 2020).</u> |
| 23.1* | <u>Consent of Ernst & Young LLP, independent registered public accounting firm.</u> |
| 24.1* | <u>Power of Attorney (included on signature page).</u> |
| 31.1* | <u>Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u> |
| 31.2* | <u>Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u> |
| 32.1*††† | <u>Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u> |
| 32.2*††† | <u>Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u> |
| 101.INS* | XBRL Instance Document |
| 101.SCH* | XBRL Taxonomy Extension Schema Document |
| 101.CAL* | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF* | XBRL Taxonomy Extension Definition Linkbase Document |
| 101.LAB* | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE* | XBRL Taxonomy Extension Presentation Linkbase Document |

* Filed herewith.

Indicates a management contract or any compensatory plan, contract or arrangement.

† Schedules and exhibits to this Exhibit omitted pursuant to Regulation S-K Item 601(b)(2). The Registrant agrees to furnish supplementally a copy of any omitted schedule or exhibit to the SEC upon request.

†† Certain confidential portions (indicated by brackets and asterisks) have been omitted from this exhibit.

††† These certifications will not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act except to the extent specifically incorporated by reference into such filing.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Exchange Act the Registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

CEREVEL THERAPEUTICS HOLDINGS, INC.

Date: March 24, 2021

By: /s/ N. Anthony Coles

N. Anthony Coles
President and Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY AND SIGNATURES

Each person whose individual signature appears below hereby authorizes and appoints each of N. Anthony Coles, Kathy Yi and Mark Bodenrader with full power of substitution and resubstitution and full power to act as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this Annual Report and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorney-in-fact and agent or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Exchange Act this Annual Report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

| Signature | Title | Date |
|--|---|----------------|
| <u>/s/ N. Anthony Coles</u> N. Anthony Coles | Chairman, Director, President and Chief Executive Officer <i>(Principal Executive Officer)</i> | March 24, 2021 |
| <u>/s/ Kathy Yi</u> Kathy Yi | Chief Financial Officer <i>(Principal Financial Officer)</i> | March 24, 2021 |
| <u>/s/ Mark Bodenrader</u> Mark Bodenrader | Chief Accounting Officer <i>(Principal Accounting Officer)</i> | March 24, 2021 |
| <u>/s/ Deborah Baron</u> Deborah Baron | Director | March 24, 2021 |
| <u>/s/ Morris Birnbaum</u> Morris Birnbaum | Director | March 24, 2021 |
| <u>/s/ Marijn Dekkers</u> Marijn Dekkers | Director | March 24, 2021 |
| <u>/s/ Doug Giordano</u> Doug Giordano | Director | March 24, 2021 |
| <u>/s/ Christopher Gordon</u> Christopher Gordon | Director | March 24, 2021 |
| <u>/s/ Adam Koppel</u> Adam Koppel | Director | March 24, 2021 |
| <u>/s/ Ruth McKernan</u> Ruth McKernan | Director | March 24, 2021 |
| <u>/s/ Deval Patrick</u> Deval Patrick | Director | March 24, 2021 |
| <u>/s/ Norbert Riedel</u> Norbert Riedel | Director | March 24, 2021 |
| <u>/s/ Gabrielle Sulzberger</u> Gabrielle Sulzberger | Director | March 24, 2021 |

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Cerevel Therapeutics Holdings, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Cerevel Therapeutics Holdings, Inc. (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the two years in the period ended December 31, 2020, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2019.

Boston, Massachusetts
March 24, 2021

CEREVEL THERAPEUTICS HOLDINGS, INC.

CONSOLIDATED BALANCE SHEETS
(In thousands, except share amounts and per share data)

| | As of December 31, | |
|--|--------------------|------------|
| | 2020 | 2019 |
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | \$ 383,623 | \$ 79,551 |
| Prepaid expenses and other current assets | 6,937 | 7,526 |
| Total current assets | 390,560 | 87,077 |
| Property and equipment, net | 24,165 | 1,476 |
| Operating lease assets | 24,459 | 26,015 |
| Restricted cash | 4,200 | 4,131 |
| Other long-term assets | 1,889 | 2,107 |
| Total assets | \$ 445,273 | \$ 120,806 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable | \$ 4,993 | \$ 2,109 |
| Accrued expenses and other current liabilities | 22,519 | 10,175 |
| Operating lease liabilities, current portion | 2,036 | 2,592 |
| Total current liabilities | 29,548 | 14,876 |
| Operating lease liabilities, net of current portion | 30,969 | 25,819 |
| Other long-term liabilities | 236 | 2,288 |
| Total liabilities | 60,753 | 42,983 |
| Commitments and contingencies (Notes 10, 15 and 16) | | |
| Stockholders' equity: | | |
| Preferred Stock, \$0.0001 par value: 10,000,000 shares authorized; no shares issued and outstanding as of December 31, 2020 and 2019 | — | — |
| Common Stock, \$0.0001 par value: 500,000,000 shares authorized; 127,123,954 and 60,930,932 shares issued and outstanding as of December 31, 2020 and 2019, respectively | 13 | 6 |
| Additional paid-in capital | 775,417 | 322,115 |
| Accumulated deficit | (390,910) | (244,298) |
| Total stockholders' equity | 384,520 | 77,823 |
| Total liabilities and stockholders' equity | \$ 445,273 | \$ 120,806 |

The accompanying notes are an integral part of these consolidated financial statements.

CEREVEL THERAPEUTICS HOLDINGS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(In thousands, except share amounts and per share data)

| | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 |
|--|--|--|
| Operating expenses: | | |
| Research and development | \$ 103,303 | \$ 50,294 |
| General and administrative | 45,813 | 33,169 |
| Total operating expenses | 149,116 | 83,463 |
| Loss from operations | (149,116) | (83,463) |
| Interest income, net | 224 | 1,552 |
| Other income (expense), net | (3,274) | (46,433) |
| Loss before income taxes | (152,166) | (128,344) |
| Income tax benefit (provision), net | 24 | (45) |
| Net loss and comprehensive loss | \$ (152,142) | \$ (128,389) |
| Reconciliation of net loss attributable to common stockholders: | | |
| Net loss | \$ (152,142) | \$ (128,389) |
| Benefit related to the redemption of Series A-1 redeemable convertible preferred stock at less than the carrying value | 3,871 | — |
| Net loss attributable to common stockholders | \$ (148,271) | \$ (128,389) |
| Net loss per share attributable to common stockholders, basic and diluted | \$ (2.01) | \$ (2.90) |
| Weighted-average shares used in calculating net loss per share, basic and diluted | 73,643,315 | 44,209,264 |

The accompanying notes are an integral part of these consolidated financial statements.

CEREVEL THERAPEUTICS HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share amounts)

| | Series A-1 Preferred Stock | | Series A-2 Preferred Stock | | Series A Common Stock | | Common stock | | Additional paid-in capital | Accumulated deficit | Total stockholders' equity (deficit) |
|---|-------------------------------|-------------|-------------------------------|-------------|--------------------------|-------------|--------------------|--------------|----------------------------------|------------------------|---|
| | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount | | | |
| Balance at December 31, 2018 (as previously reported) | 6,900,000 | \$ 78,937 | 3,833,333 | \$ 98,132 | 4,600,000 | \$ — | — | \$ — | \$ 38,533 | \$ (115,909) | \$ (77,376) |
| Retroactive application of the recapitalization due to the Business Combination | | | | | | | | | | | |
| Transaction (refer to Note 3) | (6,900,000) | (78,937) | (3,833,333) | (98,132) | (4,600,000) | — | 43,761,799 | 4 | 177,065 | — | 177,069 |
| Balance at December 31, 2018, effect of Business Combination Transaction (refer to Note 3) | — | \$ — | — | \$ — | — | \$ — | 43,761,799 | \$ 4 | \$ 215,598 | \$ (115,909) | \$ 99,693 |
| Issuance of Series A-1 preferred stock and Series A common stock and common stock in exchange for cash | — | — | — | — | — | — | 17,140,593 | 2 | 60,056 | — | 60,058 |
| Issuance of common stock under equity incentive plans | — | — | — | — | — | — | 28,540 | — | — | — | — |
| Partial settlement of Equity Commitment liability upon issuance of Series A-1 preferred stock and Series A common stock | — | — | — | — | — | — | — | — | 38,150 | — | 38,150 |
| Equity-based compensation expense | — | — | — | — | — | — | — | — | 8,311 | — | 8,311 |
| Net loss | — | — | — | — | — | — | — | — | — | (128,389) | (128,389) |
| Balance at December 31, 2019, effect of Business Combination Transaction (refer to Note 3) | — | \$ — | — | \$ — | — | \$ — | 60,930,932 | \$ 6 | \$ 322,115 | \$ (244,298) | \$ 77,823 |
| Issuance of Series A-1 preferred stock and Series A common stock in exchange for cash (refer to Note 3) | — | — | — | — | — | — | 2,500,000 | — | 25,000 | — | 25,000 |
| Partial settlement of Equity Commitment liability upon issuance of Series A-1 preferred stock and Series A common stock (refer to Note 3) | — | — | — | — | — | — | — | — | 5,530 | — | 5,530 |
| Redemption of Series A-1 preferred stock with exchange (refer to Note 3) | — | — | — | — | — | — | — | — | (3,871) | 3,871 | — |
| Redemption of Series A common stock with exchange (refer to Note 3) | — | — | — | — | — | — | — | — | (1,659) | 1,659 | — |
| Issuance of additional common stock related to anti-dilution provisions of Series A-2 preferred stock (refer to Note 3) | — | — | — | — | — | — | 15,208,762 | 2 | (2) | — | — |
| Issuance of common stock, net of offering costs upon Business Combination Transaction (refer to Note 3) | — | — | — | — | — | — | 48,441,450 | 5 | 417,783 | — | 417,788 |
| Issuance of common stock under equity incentive plans | — | — | — | — | — | — | 42,810 | — | - | — | - |
| Equity-based compensation expense | — | — | — | — | — | — | — | — | 10,521 | — | 10,521 |
| Net loss | — | — | — | — | — | — | — | — | - | (152,142) | (152,142) |
| Balance at December 31, 2020 | <u>—</u> | <u>\$ —</u> | <u>—</u> | <u>\$ —</u> | <u>—</u> | <u>\$ —</u> | <u>127,123,954</u> | <u>\$ 13</u> | <u>\$ 775,417</u> | <u>\$ (390,910)</u> | <u>\$ 384,520</u> |

The accompanying notes are an integral part of these consolidated financial statements.

CEREVEL THERAPEUTICS HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

| | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 |
|---|--|--|
| Cash flows from operating activities: | | |
| Net loss | \$ (152,142) | \$ (128,389) |
| Adjustments to reconcile net loss to net cash flows used in operating activities: | | |
| Depreciation and amortization | 397 | 177 |
| Non-cash rent expense under operating leases | (88) | 2,396 |
| Equity-based compensation | 10,521 | 8,311 |
| Change in fair value of Equity Commitment | 3,530 | 51,562 |
| Change in fair value of Share Purchase Option | (260) | (5,120) |
| Write-off of deferred offering costs | 2,533 | — |
| Changes in operating assets and liabilities, net: | | |
| Prepaid expenses and other current assets | 78 | (6,810) |
| Operating lease asset | (342) | — |
| Other assets | (715) | (1,372) |
| Accounts payable | 1,417 | 607 |
| Accrued expenses and other liabilities | 10,690 | 7,918 |
| Operating lease liability | 6,579 | — |
| Net cash flows used in operating activities | (117,802) | (70,720) |
| Cash flows from investing activities: | | |
| Purchases of property and equipment | (18,892) | (1,099) |
| Net cash flows used in investing activities | (18,892) | (1,099) |
| Cash flows from financing activities: | | |
| Proceeds from issuance of common and preferred stock, net of offering costs | — | 60,058 |
| Proceeds from Business Combination Transaction, net of offering costs paid (see Note 3) | 442,617 | — |
| Deferred costs related to abandoned initial public offering and other financing activities | (1,782) | — |
| Net cash flows provided by financing activities | 440,835 | 60,058 |
| Net increase (decrease) in cash, cash equivalents, and restricted cash | 304,141 | (11,761) |
| Cash, cash equivalents and restricted cash, beginning of the period | 83,682 | 95,443 |
| Cash, cash equivalents and restricted cash, end of the period | \$ 387,823 | \$ 83,682 |
| Non-cash operating, investing, and financing activities | | |
| Fixed asset additions included in accounts payable and other current liabilities | \$ 4,488 | \$ 463 |
| Unpaid offering costs included in accounts payable and other current liabilities | \$ 140 | \$ — |
| Operating lease assets obtained in exchange for operating lease liabilities | \$ 445 | \$ 27,303 |
| Settlement of Equity Commitment liability upon issuance of Series A-1 Preferred Stock and Series A Common Stock | \$ 5,530 | \$ 38,150 |

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Operations

Unless the context otherwise requires, references in these notes to “Cerevel,” “the company,” “we,” “us” and “our” and any related terms are intended to mean Cerevel Therapeutics Holdings, Inc. and its consolidated subsidiaries.

We are a clinical-stage biopharmaceutical company pursuing a targeted approach to neuroscience that combines a deep understanding of disease-related biology and neurocircuitry of the brain with advanced chemistry and central nervous system, or CNS, target receptor selective pharmacology to discover and design new therapies. We seek to transform the lives of patients through the development of new therapies for neuroscience diseases, including schizophrenia, epilepsy and Parkinson’s disease.

Business Combination Transaction

On October 27, 2020, ARYA Sciences Acquisition Corp II (ARYA) completed the acquisition of Cerevel Therapeutics, Inc., a private company, pursuant to the Business Combination Agreement dated July 29, 2020, as amended on October 2, 2020.

ARYA was incorporated as a Cayman Islands exempted company on February 20, 2020, and was formed for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses.

Cerevel Therapeutics, Inc. was incorporated in Delaware on July 23, 2018, referred to as Inception, under the name Perception Holdco, Inc. which was subsequently changed to Cerevel Therapeutics, Inc. on October 23, 2018.

Our principal operations commenced on September 24, 2018 (Formation Transaction Date), when Cerevel Therapeutics, Inc. (Old Cerevel) acquired licensed technology to a portfolio of pre-commercial neuroscience assets from Pfizer in exchange for the issuance of Series A-2 Preferred Stock of Old Cerevel and obtained a \$350.0 million equity commitment, or the Equity Commitment, from Bain Investor, an affiliate of Bain Capital, to develop the in-licensed assets in exchange for the issuance of Series A-1 Preferred Stock and Series A Common Stock of Old Cerevel, which we refer to collectively as the Formation Transaction. Bain Investor also received the option to purchase up to an additional 10.0 million shares of Old Cerevel at \$10.00 per share, subject to Pfizer’s participation rights (Share Purchase Option). On the Formation Transaction Date, we received an initial investment of \$115.0 million in equity funding from Bain Investor to begin operations. During 2019 we received an additional investment of \$60.1 million in equity funding from Bain Investor. Bain Investor contributed an additional \$25.0 million in equity funding in July 2020 (the Additional Financing Shares).

Upon the closing of the Business Combination Transaction, Old Cerevel became a wholly owned subsidiary of ARYA and ARYA was renamed Cerevel Therapeutics Holdings, Inc and the Stock Purchase Agreement, the Equity Commitment and the Share Purchase Option related to Old Cerevel were terminated. Upon completion of the Business Combination Transaction, and pursuant to the terms of the Business Combination Agreement, the existing shareholders of Old Cerevel exchanged their interests for shares of common stock of Cerevel Therapeutics Holdings, Inc. (New Cerevel). Net proceeds from this transaction totaled approximately \$439.5 million.

For additional information on the Business Combination Transaction and the Additional Financing Shares, please read Note 3, *Business Combination*, to these consolidated financial statements. For additional information on our license arrangement with Pfizer, please read Note 6, *Pfizer License Agreement*, to these consolidated financial statements. For additional information on the Equity Commitment and the Share Purchase Option, please read Note 7, *Equity Commitment and Share Purchase Option*, to these consolidated financial statements. For additional information on our Stockholders’ Equity, please read Note 11, *Stockholders’ Equity*, to these consolidated financial statements.

2. Risks and Liquidity

We are subject to risks and uncertainties common to clinical-stage companies in the biopharmaceutical industry. These risks include, but are not limited to, the introduction of new products, therapies, standards of care or new technological innovations, our ability to obtain and maintain adequate protection for our licensed technology, data or other intellectual property and proprietary rights and compliance with extensive government regulation and oversight. In addition, we are dependent upon the services of our employees, including key personnel, consultants, third-party contract research organizations and other third-party organizations.

Our product candidates, currently under development or that we may develop, will require significant additional research and development efforts, including extensive clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel infrastructure and extensive compliance and reporting capabilities. There can be no assurance that our research and development activities will be successfully completed, that adequate protection for our licensed or developed technology will be obtained and maintained, that products developed will obtain necessary government regulatory approval or that any approved products will be commercially viable.

Our consolidated financial statements have been prepared on the basis of continuity of operations, the realization of assets and the satisfaction of liabilities in the ordinary course of business. Since Inception, we have incurred significant operating losses and, as of December 31, 2020, we had an accumulated deficit of \$390.9 million and had not yet generated revenues. We anticipate that our expenses will increase significantly in connection with our ongoing activities to support our research, discovery and clinical development efforts and we expect to continue to incur significant expenses and operating losses for the foreseeable future.

Prior to the Business Combination, our operations were funded primarily with the proceeds received from the issuance of convertible preferred stock, convertible common stock and common stock, as described above in Note 1, *Nature of Operations*. We believe that our available cash resources as of December 31, 2020, of \$383.6 million will enable us to fund our operating expense and capital expenditure requirements at least up to the next twelve months from the issuance date of these financial statements. For additional information on the Business Combination Transaction, please read Note 3, *Business Combination*, to these consolidated financial statements.

Impact of the COVID-19 Pandemic

In March 2020 the World Health Organization declared the COVID-19 outbreak a pandemic. The COVID-19 pandemic is evolving, and to date has led to the implementation of various responses, including government-imposed quarantines, travel restrictions and other public health safety measures.

We are closely monitoring the impact of the pandemic of COVID-19 on all aspects of our business, including how it will impact our operations and the operations of our suppliers, vendors and business partners. We have taken steps to identify and mitigate the adverse impacts on, and risks to, our business posed by its spread and actions taken by governmental and health authorities to address this pandemic; however, the spread of COVID-19 has caused us to modify our business practices, including implementing a temporary work-from-home policy for all employees who are able to perform their duties remotely and temporarily restricting all non-essential travel and discouraged employee attendance at industry events and in-person work-related meetings. We expect to continue to take actions as may be required or recommended by government authorities or as we determine are in the best interests of our employees and other business partners in light of COVID-19.

More specifically, the onset of the COVID-19 pandemic caused brief pauses in patient screening and enrollment in our Phase 3 trials of tavapadon for the treatment of Parkinson's (which we subsequently resumed in the second half of 2020), and we remain particularly vigilant about patient safety given the elderly nature of this population. While we have taken measures to revise clinical trial protocols, the ultimate extent to which COVID-19 impacts our business, results of operation and financial condition will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, new information that may emerge concerning the severity of COVID-19 or the effectiveness of actions to contain COVID-19 or treat its impact, among others.

In addition, recurrences or additional waves of COVID-19 cases could cause other widespread or more severe impacts depending on where infection rates are highest. We cannot presently predict the scope and severity of any potential business shutdowns or disruptions, but if we or any of the third parties with whom we engage were to experience prolonged business shutdowns or other disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively affected, which could have a material adverse impact on our business, results of operation and financial condition. The estimates of the impact on our business may change based on new information that may emerge concerning COVID-19 and the actions to contain it or treat its impact and the economic impact on local, regional, national and international markets.

We have not incurred any significant impairment losses in the carrying values of our assets as a result of the pandemic and we are not aware of any specific related event or circumstance that would require us to revise our estimates reflected in our consolidated financial statements.

3. Business Combination

On October 27, 2020, ARYA completed the acquisition of Old Cerevel pursuant to the Business Combination Agreement with Old Cerevel surviving the merger as a wholly owned subsidiary of ARYA. Net proceeds from this transaction totaled approximately \$439.5 million. These proceeds were comprised of funds held in ARYA's trust account and funds received from the completion of a concurrent private investment in public equity financing (PIPE Financing), which included the \$25.0 million received from Bain Investor in July 2020 (the Additional Financing Shares).

Pursuant to the terms of the Business Combination Agreement, the existing shareholders of Old Cerevel exchanged their interests for shares of common stock of New Cerevel. In addition, ARYA issued public warrants and private placement warrants (collectively, the warrants) in its IPO in June 2020, and upon the consummation of the Business Combination Transaction, each outstanding warrant of ARYA become one warrant to purchase one share of New Cerevel. None of the terms of the warrants were modified as a result of the Business Combination Transaction. Immediately after giving effect to the Business Combination Transaction, there were 127,123,954 shares of common stock issued and outstanding and 5,149,647 warrants outstanding to purchase shares of common stock of New Cerevel.

We accounted for the Business Combination Transaction as a reverse recapitalization, which is the equivalent of Old Cerevel issuing stock for the net assets of ARYA, accompanied by a recapitalization, with ARYA treated as the acquired company for accounting purposes. The determination of ARYA as the "acquired" company for accounting purposes was primarily based on the fact that subsequent to the business combination, Cerevel has a majority of the voting power of the combined company, Cerevel will comprise all of the ongoing operations of the combined entity, a majority of the governing body of the combined company and Cerevel's senior management will comprise all of the senior management of the combined company. The net assets of ARYA were stated at historical cost with no goodwill or other intangible assets recorded. Reported results from operations included herein prior to the Business Combination are those of Old Cerevel. The shares and corresponding capital amounts and loss per share related to Old Cerevel's outstanding redeemable convertible preferred stock, redeemable convertible common stock and common stock prior to the Business Combination Transaction have been retroactively restated to reflect the exchange ratio established in the Business Combination Agreement (1.00 Old Cerevel share for 2.854 shares of New Cerevel), or the Exchange Ratio.

In connection with the Business Combination Transaction, we incurred underwriting fees and other costs considered direct and incremental to the transaction totaling \$24.6 million, consisting of legal, accounting, financial advisory and other professional fees. These amounts are reflected within additional paid-in capital in our consolidated balance sheet as of December 31, 2020. In addition, upon completion of our Business Combination Transaction, we also paid the remaining management fees payable under the agreement with Bain Investor to provide management services (Management Agreement), of approximately \$3.0 million, which have been reflected in general and administrative expense in our consolidated statement of operations along with other incremental costs not considered directly attributable to the Business Combination Transaction for the year ended December 31, 2020.

PIPE Financing (Private Placement)

Concurrent with the execution of the Business Combination Agreement, we entered into subscription agreements (the Subscription Agreements) with certain investors, including, among others, Perceptive Life Sciences Master Fund Ltd, a fund managed by Perceptive Advisors, an affiliate of ARYA, as well as certain equity holders of Cerevel, including Pfizer and Bain Investor (collectively, the PIPE Investors). Pursuant to the Subscription Agreements, on October 27, 2020, each PIPE Investor subscribed for and purchased, and we issued and sold to such investors an aggregate of 32,000,000 shares of ARYA Common Stock for a purchase price of \$10.00 per share, for aggregate gross proceeds of \$320.0 million (the PIPE Financing).

Additional Financing Shares

Pursuant to the Subscription Agreement entered into with the Bain Investor (the Bain Subscription Agreement), Bain Investor, pre-funded a portion of its subscription amount by purchasing equity securities of Cerevel prior to Closing, the proceeds of which were used to fund Cerevel's ongoing operations prior to completion of the Business Combination. In July 2020, Bain Investor pre-funded \$25.0 million of its \$100.0 million subscription amount in exchange for 1,750,000 Series A-1 Preferred Stock and 750,000 Series A Common Stock. The Additional Financing Shares contained a redemption feature whereby these shares were required to be redeemed for a number of newly issued shares identical to the shares issued in a private placement, including a private investment in public equity in connection with a business combination between the company and a special purpose acquisition company or a Series B financing, in an aggregate amount equal to \$25.0 million divided by the per share price paid by the other purchasers.

Upon the closing of the Business Combination Transaction, which satisfied the condition allowing for redemption as described above, the Additional Financing Shares were exchanged for 2,500,000 shares of New Cerevel common stock at the fair value of the New Cerevel common stock on the Closing Date. As a result of this exchange, we recognized a decrease to accumulated deficit related to the difference between the initial carrying value of the shares issued of Old Cerevel in July and the fair value of New Cerevel common stock of \$3.9 million and \$1.7 million for the Series A-1 Preferred Stock and Series A Common Stock, respectively.

Summary of Net Proceeds

The following table summarizes the elements of the net proceeds from the Business Combination Transaction as of December 31, 2020:

| <i>(In thousands)</i> | Recapitalization |
|---|-------------------------|
| Cash - ARYA Trust and cash (net of redemptions) | \$ 147,122 |
| Cash - PIPE Financing (including proceeds from Bain Investor July Additional Financing Shares) | 320,000 |
| Less: Underwriting fees and other offering costs paid prior to year end | (24,505) |
| Proceeds from Business Combination Transaction, net of offering costs paid per the Cash Flows from Financing Activities | \$ 442,617 |
| Less: Other offering costs included in accounts payable and other current liabilities | (140) |
| Less: Acceleration of Cerevel management fees paid to Bain Investor included in G&A expense | (2,984) |
| Net proceeds from the Business Combination Transaction | \$ 439,493 |

In addition to the net proceeds disclosed above, we also assumed \$0.3 million of prepaid assets of ARYA upon closing of the Business Combination Transaction.

Summary of Shares Issued

The following table summarizes the number of shares of common stock outstanding immediately following the consummation of the Business Combination Transaction:

| | Number of Shares |
|---|------------------|
| ARYA shares outstanding prior to the Business Combination Transaction | 19,186,500 |
| Less: redemption of ARYA shares prior to the Business Combination Transaction | (245,050) |
| Common stock of ARYA | 18,941,450 |
| Shares issued pursuant to the PIPE Financing (including Bain Investor July 2020 Additional Financing Shares) | 32,000,000 |
| Business Combination and PIPE Financing shares | 50,941,450 |
| Conversion of Old Cerevel Series A-1 preferred shares for common stock | 31,701,214 |
| Conversion of Old Cerevel Series A common stock for common stock | 18,260,729 |
| Conversion of Old Cerevel Series A-2 preferred shares for common stock | 10,940,449 |
| Issuance of additional common stock related to anti-dilution protections of Old Cerevel Series A-2 preferred shares | 15,208,762 |
| Conversion of Old Cerevel common stock under the equity incentive plans for common stock | 71,350 |
| Total shares of New Cerevel common stock outstanding immediately following the Business Combination Transaction | 127,123,954 |

4. Summary of Significant Accounting Policies

The following is a summary of significant accounting policies followed in the preparation of these financial statements.

Basis of Presentation

The accompanying consolidated financial statements include those of the company and its subsidiaries, Cerevel Therapeutics Inc., Cerevel Therapeutics LLC and Cerevel MA Securities Corporation, after elimination of all intercompany accounts and transactions. The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification ("ASC") and Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB").

As a result of the Business Combination Transaction, the shares and corresponding capital amounts and loss per share related to Old Cerevel's outstanding redeemable convertible preferred stock, redeemable convertible common stock and common stock prior to the Business Combination Transaction have been retroactively restated to reflect the Exchange Ratio established in the Business Combination Agreement.

For additional information on the Business Combination Transaction and the Exchange Ratio, please read Note 3, *Business Combination*, to these consolidated financial statements.

Segment Information

Operating segments are defined as components of an entity for which separate financial information is available and that is regularly reviewed by the Chief Operating Decision Maker (CODM) in deciding how to allocate resources to an individual segment and in assessing performance. Our CODM is our Chairperson of the Board of Directors and Chief Executive Officer. We have determined that we operate as a single operating segment and have one reportable segment. All of our long-lived assets are held in the United States.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of expenses during the reporting periods. Significant estimates and assumptions made in the accompanying consolidated financial statements include, but are not limited to, the fair value of preferred and common stock, the fair value of the Equity Commitment, the fair value of the Share Purchase Option, the fair value of stock options, the recoverability of the Company's net deferred tax assets and the related valuation allowance and our accruals for research and development expense. We evaluate our estimates and assumptions on an ongoing basis using historical experience and other factors and adjust those estimates and assumptions when facts and circumstances change. Actual results could differ materially from those estimates.

Cash and Cash Equivalents

We consider all short-term, highly liquid investments with original maturities of 90 days or less at the date of purchase to be cash equivalents. As of December 31, 2020 and 2019, our cash equivalents consist primarily of amounts invested in money market accounts.

Restricted Cash

In connection with our entering into the lease agreement for our headquarters in Cambridge, MA, in July 2019 we were required to provide a security deposit in the form of a letter of credit. We have classified this amount as restricted cash within our consolidated balance sheet as of December 31, 2020 and 2019. Restricted cash was classified as a non-current asset as the associated lease term expires more than 12 months from December 31, 2020.

A reconciliation of the cash, cash equivalents and restricted cash reported within our consolidated balance sheets that sum to the total of the amounts shown in the consolidated statements of cash flows is as follows:

| <i>(In thousands)</i> | As of December 31, 2020 | As of December 31, 2019 |
|--|-------------------------------|-------------------------------|
| Cash and cash equivalents | \$ 383,623 | \$ 79,551 |
| Restricted cash | 4,200 | 4,131 |
| Total cash, cash equivalents and restricted cash | <u>\$ 387,823</u> | <u>\$ 83,682</u> |

Concentration of Credit Risk

Financial instruments that potentially expose us to concentrations of credit risk consist primarily of cash, cash equivalents and restricted cash. All of our cash deposits are maintained at a large, creditworthy financial institution. Our deposits at times may significantly exceed federally insured limits. We do not believe that we are subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships. We do not have any significant off-balance sheet risk, such as foreign exchange contracts, option contracts, or other foreign hedging arrangements.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation and amortization, subject to review for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Purchased assets that are not yet in service are recorded to construction-in-process and no depreciation expense is recorded. Once the assets are placed in service, they are reclassified to the appropriate asset class.

Depreciation and amortization expense is recognized using the straight-line method over the following estimated useful lives:

| Asset Category | Estimated Useful Life |
|---------------------------------|--|
| Computer equipment and software | 3 years |
| Furniture and fixtures | 5 years |
| Laboratory equipment | 5 years |
| Leasehold improvements | Shorter of useful life or remaining lease term |

Costs of major additions and improvements are capitalized and amortized on a straight-line basis over the shorter of the lease term or the estimated useful life of the asset. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation and amortization are removed from the accounts and any resulting gain or loss is included in the determination of net income or loss. The cost of normal, recurring, or periodic repairs and maintenance activities are expensed as incurred.

Impairment of Long-Lived Assets

Our long-lived assets consist primarily of property and equipment. Long-lived assets to be held and used are tested for recoverability whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that we consider in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset group for recoverability, we compare forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset group to its carrying value. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of an asset group are less than its carrying amount. The impairment loss would be based on the excess of the carrying value of the impaired asset group over its fair value, determined based on discounted cash flows. To date, we have not recorded any impairment losses on long-lived assets.

Leases

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, issued to increase transparency and comparability among organizations related to their leasing activities. This standard established a right-of-use model that requires all lessees to recognize right-of-use assets and lease liabilities on their balance sheet that arise from leases as well as provide disclosures with respect to certain qualitative and quantitative information related to a company's leasing arrangements to meet the objective of allowing users of financial statements to assess the amount, timing and uncertainty of cash flows arising from leases. We adopted this standard effective at Inception.

We determine if an arrangement is a lease at contract inception. Operating lease assets represent our right to use an underlying asset for the lease term and operating lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease assets and liabilities are recognized at the commencement date of the lease based upon the present value of lease payments over the lease term. When determining the lease term, we include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. We use the implicit rate when readily determinable and use our incremental borrowing rate when the implicit rate is not readily determinable based upon the information available at the commencement date of the respective leases in determining the present value of the lease payments. Our incremental borrowing rate is determined using a secured borrowing rate for the same currency and term as the associated lease.

The lease payments used to determine our operating lease assets may include lease incentives, stated rent increases and escalation clauses linked to rates of inflation when determinable and are recognized in our operating lease assets in our consolidated balance sheets.

Our operating leases are reflected in operating lease assets and operating lease liabilities, current portion and operating lease liabilities, net of current portion in our consolidated balance sheets. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term and included in operating expenses in our consolidated statements of operations and comprehensive loss.

For additional information on the adoption of the new leasing standards, please read Note 10, *Leases*, to these consolidated financial statements.

Fair Value Measurements

Certain of our assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three categories:

- Level 1 Quoted prices in active markets for identical assets or liabilities.
- Level 2 Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies, and similar techniques.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by us in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying amounts reflected in our consolidated balance sheets for cash and cash equivalents, prepaid expenses and other current assets, accounts payable, and accrued expenses approximate their fair values, due to their short-term nature. We believe that the carrying value of the Equity Commitment and Share Purchase Option approximated their fair value based on Level 3 inputs throughout 2020 until these instruments were terminated upon closing of the Business Combination Transaction.

Fair Value of Equity Commitment and Share Purchase Option

The Equity Commitment and Share Purchase Option were free-standing financial instruments that may have required us to transfer equity upon settlement or exercise, respectively, and were recorded at fair value on the Formation Transaction Date. The fair value of each financial instrument on the Formation Transaction Date was allocated to the Series A-1 Preferred Stock, Series A-2 Preferred Stock and Series A Common Stock.

We revalued these financial instruments each reporting period until the Equity Commitment and Share Purchase Option were terminated upon completion of the Business Combination Transaction. Changes in fair value of the Equity Commitment and Share Purchase Option were recognized as a component of other income (expense), net in our consolidated statements of operations and comprehensive loss through their termination upon closing of the Business Combination Transaction. We classified the fair value of the remaining Equity Commitment and the Share Purchase Option as an asset or a liability in our consolidated balance sheets.

Changes in the fair value of these instruments resulted from changes to one or multiple inputs, including adjustments to the discount rates, expected volatility and dividend yield as well as changes in the amount and timing of the anticipated future funding required in settlement of the Equity Commitment and upon exercise of the Share Purchase Option and the fair value of our preferred and common shares expected to be exchanged for that additional funding. Immediately prior to the closing of the Business Combination Transaction, these financial instruments were adjusted to their final fair value of zero and were terminated upon Closing.

For additional information on the Business Combination Transaction, please read Note 3, *Business Combination*, to these consolidated financial statements. For additional information on the valuation methodology for the Equity Commitment and Share Purchase Option, please read Note 7, *Equity Commitment and Share Purchase Option*, to these consolidated financial statements.

Offering Costs

We capitalize certain underwriting, legal, professional accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until such financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' (deficit) equity as a reduction of additional paid-in capital generated as a result of the offering. Should the in-process equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in our consolidated statements of operations and comprehensive loss.

Revenues

Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred and title has passed, the price is fixed or determinable, and collectability is reasonably assured. We are a clinical stage company and have had no revenues to date.

Research and Development Expense

Research and development expenses include costs incurred in connection with the preclinical and clinical development of our product candidates including employee-related expenses, consisting of salaries, benefits and equity-based compensation for personnel engaged in our research and development activities, fees paid to other entities that conduct certain research and development activities on our behalf, as well as certain indirect costs incurred in support of overall research and development activities including facilities, depreciation and technology expenses.

Payments we make for research and development services prior to the services being rendered are recorded as prepaid assets in our consolidated balance sheets and are expensed as the services are provided. We estimate and accrue the value of goods and services received from CROs and other third parties each reporting period based on estimates of the level of services performed and progress in the period when we have not received an invoice from such organizations. When evaluating the adequacy of the accrued liabilities, we analyze progress of the studies or clinical trials, including the phase or completion of events, invoices received and contracted costs. Significant judgments and estimates are made in determining the accrued balances at the end of any reporting period. We reassess and adjust our accruals as actual costs become known or as additional information becomes available. Our historical accrual estimates have not been materially different from the actual costs.

Patent Costs

All patent-related costs incurred in connection with filing and prosecuting patent applications are recorded as general and administrative expenses in our accompanying statement of operations and comprehensive loss.

Equity-Based Compensation

We determine the fair value of each award issued under our equity-based compensation plan on the date of grant. We recognize compensation expense for service-based awards on a straight-line basis over the requisite service period which generally approximates the vesting term. For service-based awards with performance or market conditions, we recognize compensation expense on a straight-line basis over the requisite service period for each separate vesting portion of the award, with the amount of compensation expense recognized at any date at least equaling the portion of the grant-date fair value of the award that is vested at that date. Equity-based compensation expense for awards with performance conditions are recognized to the extent we determine that the condition is considered probable to be met. We reassess the probability of achieving these performance conditions each reporting period until the date such conditions are settled. Cumulative adjustments are recorded each period to reflect the estimated outcome of the performance condition.

We elected to account prospectively for forfeitures as they occur rather than apply an estimated forfeiture rate to equity-based compensation expense. We classify equity-based compensation expense in our consolidated statements of operations and comprehensive loss in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified, as applicable.

Determination of the Fair Value – Preferred and Common Stock

Prior to the completion of the Business Combination Transaction, given the absence of an active market for our common stock, we were required to estimate the fair value of the company's common stock at the time of each grant of an equity-based award. We utilized various valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants' Technical Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation, to estimate the fair value of our common stock. Each valuation methodology includes estimates and assumptions that require judgment. These estimates and assumptions included a number of objective and subjective factors in determining the value of our common stock at each grant date, including the following factors:

- prices paid for our convertible preferred stock and common stock, and the rights, preferences, and privileges associated with our convertible preferred stock and common stock;
- the progress of our research and development efforts, including the status of preclinical studies and planned clinical trials for our investigational medicines;
- our stage of development and projected growth;
- the fact that the grants of equity-based awards involved illiquid securities in a private company;
- the likelihood of achieving a liquidity event for the common stock underlying the equity-based awards, such as an initial public offering (IPO), given prevailing market conditions;
- the analysis of IPOs and the market performance of similar companies in the biotechnology and pharmaceutical industries;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors; and
- any external market conditions affecting the biotechnology industry, and trends within the biotechnology industry.

We used a hybrid methodology that combines both an income approach and a market approach to estimate the business enterprise value and our total equity value to calculate the fair value of our preferred stock and common stock during 2019 and throughout 2020, until completion of the Business Combination Transaction. A probability-weighted discounted cash flow analysis was first prepared reflecting multiple scenarios for future outcomes associated with the acquired product candidates in order to estimate the cash flows associated with estimated liquidity events (i.e., an IPO). We also used a PWERM to determine the fair value of pre-IPO funding scenarios. We then used a market approach to estimate the value as of each potential date of liquidity, resulting in an estimate of the total equity value, including the value of planned future funding. The value of the preferred stock and common stock was then estimated using an option pricing method, allocating total equity value based on an assumed future liquidity date, the liquidation preference of the preferred stock and the assumed funding in each scenario. Each of these scenarios was probability-weighted based on the expected outcomes to arrive at a final estimated fair value per share of the common stock.

Subsequent to the closing of the Business Combination Transaction, our board of directors determines the fair value of each share of common stock underlying stock-based awards based on the closing price of our common stock as reported by Nasdaq on the date of grant.

We believe our methodologies are reasonable based upon our internal peer company analyses and further supported by transactions involving our preferred stock. If different assumptions had been made, equity-based compensation expense, consolidated net loss and consolidated net loss per share could have been significantly different.

Determination of Fair Value – Stock Option Awards

Subsequent to the closing of the Business Combination Transaction, we estimate the fair value of our stock option awards using the Black Scholes method utilizing the "simplified method," for determining the expected life of the award, which is based on the mid-point between the vesting date and the end of the contractual term as all options granted after becoming a public entity will be granted "at-the-money." We determine the volatility for options granted based on an analysis of reported data for a peer group of companies. The expected volatility of granted options has been determined using a weighted-average of the historical volatility measures of this peer group of companies. We will continue to apply this method until a sufficient amount of historical information regarding the volatility of our own stock price becomes available. The risk-free interest rate utilized in our calculations is based on a treasury instrument whose term is consistent with the expected life of the stock options. The expected dividend yield is assumed to be zero as we have never paid dividends and do not have current plans to pay any dividends on our common stock.

Prior to the closing of the Business Combination Transaction, we estimated the fair value of the stock option awards on the date of grant using the option pricing method, which is a variant of an income approach. The option pricing method was used given that a portion of the option awards have an exercise price that is considered to be “deeply out of the money.” The option pricing method incorporated the probability of the performance and market conditions being met and adjustments to the estimated life and value of the options to reflect the necessary growth in the common share value for such shares to become exercisable. Given that the common stock represented a non-marketable equity interest in a private enterprise, an adjustment was made to account for the lack of liquidity that a stockholder would experience. This adjustment is commonly referred to as a discount for lack of marketability.

As there was no public market for our common stock prior to the closing of the Business Combination Transaction, we determined the volatility for options granted based on an analysis of reported data for a peer group of companies. The expected volatility of granted options were determined using a weighted-average of the historical volatility measures of this peer group of companies. The expected life of options for these awards were determined by probability-weighting the calculated expected life of the option at each month the option was eligible to be at- or in-the-money to estimate the overall adjusted expected life. We did not utilize the “simplified method” to determine expected life as this method is not valid for options that are “deeply out of the money.” The risk-free interest rate utilized in our calculations is based on a treasury instrument whose term is consistent with the expected life of the stock options. The expected dividend yield is assumed to be zero as we have never paid dividends and does not have current plans to pay any dividends on our common stock.

In June 2018, the FASB issued an ASU No. 2018-07 *Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*. This standard expanded the scope of ASC Topic 718, *Compensation—Stock Compensation*, to include share-based payment transactions for acquiring goods and services from nonemployees. Prior to the adoption of this standard, the measurement date for non-employee awards was generally the date the services are completed, resulting in financial reporting period adjustments to stock-based compensation during the vesting terms for changes in the fair value of the awards. We adopted this standard effective January 1, 2019. Upon adoption, the measurement date for non-employee awards is the date of grant without changes in the fair value of the award.

For additional information on the assumptions used in determining the grant date fair value of equity-based awards granted, as well as a summary of the equity-based award activity under our equity-based compensation plans for the years ended December 31, 2020 and 2019, please read Note 12, *Equity-Based Compensation* to these consolidated financial statements.

Common Stock Warrants and Derivative Financial Instruments

We review any common stock purchase warrants and other freestanding derivative financial instruments at each balance sheet date and account for them based on an assessment of the specific terms of the instrument and applicable authoritative guidance in accordance with ASC 480, *Distinguishing Liabilities from Equity (ASC 480)*.

The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, whether the warrants meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815, including whether the warrants are indexed to the Company’s own common stock and whether the warrant holders could potentially require “net cash settlement” in a circumstance outside of the Company’s control, among other conditions for equity classification. This assessment, which requires the use of professional judgment, is conducted at the time of warrant issuance and as of each subsequent quarterly period end date while the warrants are outstanding.

We classify freestanding derivative financial instruments that are indexed in our own stock as:

- a) Equity if they (i) require physical settlement or net-share settlement, or (ii) give the Company a choice of net-cash settlement or settlement in its own shares (physical settlement or net-share settlement), or
- b) Assets or liabilities if they (i) require net-cash settlement (including a requirement to net cash settle the contract if an event occurs and if that event is outside the Company’s control), or (ii) give the counterparty a choice of net-cash settlement or settlement in shares (physical settlement or net-share settlement)

We assess classification of our common stock warrants and other freestanding derivatives at each reporting date to determine whether a change in classification is required. Warrants to purchase an aggregate of 5,149,666 shares were issued by ARYA as part of the units sold in its IPO in June 2020. We determined that our 4,983,314 outstanding public common stock purchase warrants satisfied the criteria for classification as equity instruments at December 31, 2020. Our 166,333 private placement warrants were determined to be immaterial as of December 31, 2020. For additional information related to our warrants, please read Note 11, *Stockholders' Equity*, to these consolidated financial statements.

Income Taxes

We account for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the consolidated financial statements or in our tax returns. Deferred tax assets and liabilities are determined based on the difference between the financial statement carrying amounts and the tax basis of existing assets and liabilities and for loss and credit carryforwards using enacted tax rates in effect in the years in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes.

We assess the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax benefit (provision), net. Potential for recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

We account for uncertain tax positions recognized in the consolidated financial statements by prescribing a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Income tax benefit (provision), net includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

Comprehensive Loss

Comprehensive loss is comprised of two components: net loss and other comprehensive loss, which includes other changes in stockholders' deficit that result from transactions and economic events other than those with stockholders. There were no items qualifying as other comprehensive loss; accordingly, comprehensive loss equaled total net loss for the years ended December 31, 2020 and 2019.

Net Loss per Share

We calculate earnings per share in accordance with ASC 260, *Earnings per Share*. The two-class method of computing earnings per share is required for entities that have participating securities. Under the two-class method, net income is allocated between ordinary shares and participating securities based on dividends declared (or accumulated) and participating rights in undistributed earnings as if all the earnings for the reporting period had been distributed.

Basic net loss per share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, without consideration for common stock equivalents.

Diluted net loss per share is calculated by adjusting the net loss of the company for cumulative preferred stock dividends. Diluted net loss per share is calculated by adjusting the weighted average shares outstanding for the dilutive effect of common stock equivalents outstanding for the period. For purposes of the dilutive net loss per share applicable to common stockholders calculation, warrants, stock options and unvested restricted stock are considered to be common stock equivalents but are excluded from the calculation of diluted net loss per share applicable to common stockholders, as their effect would be anti-dilutive due to the fact that we were in a net loss position for the periods presented; therefore, basic and diluted net loss per share applicable to common stockholders were the same for the period presented.

Subsequent Event Considerations

We consider events or transactions that occur after the balance sheet date but prior to the issuance of the consolidated financial statements to provide additional evidence for certain estimates or to identify matters that require additional disclosure. Subsequent events have been evaluated as required. For additional information on our evaluation of subsequent events, please read Note 19, *Subsequent Events*, to these consolidated financial statements.

Emerging Growth Company Status

We are an “emerging growth company” (EGC), as defined in the Jumpstart Our Business Startups Act (JOBS Act) and we may choose to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not EGCs. We may take advantage of these exemptions until the company is no longer an EGC under Section 107 of the JOBS Act, which provides that an EGC can take advantage of the extended transition period afforded by the JOBS Act for complying with new or revised accounting standards. We have elected to use the extended transition period for complying with new or revised accounting standards and as a result of this election, our consolidated financial statements may not be comparable to companies that comply with public company effective dates. We may take advantage of these exemptions until we no longer qualify as an EGC.

5. Recent Accounting Guidance

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by us as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our financial position or results of operations upon adoption.

Financial Instruments

In July 2017, the FASB issued ASU No. 2017-11, *Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480), Derivatives and Hedging (Topic 815) I. Accounting for Certain Financial Instruments with Down Round Features II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception (ASU 2017-11)*. Part I of this standard addresses complexities associated with the accounting for financial instruments that contain down-round features. Part II addresses the difficulty of navigating Topic 480, *Distinguishing Liabilities from Equity*, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements for certain mandatorily redeemable noncontrolling interests and mandatorily redeemable financial instruments of nonpublic entities. We adopted this standard as of December 31, 2020. The adoption of this standard did not have a material impact to our consolidated financial statements.

Fair Value Measurements

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement (ASU 2018-13)*, which modifies the disclosure requirements on fair value measurements with respect to Level 3 rollforwards, timing of liquidation of investments in certain entities that calculate net asset value, and measurement uncertainty. We adopted this standard effective January 1, 2020. The adoption of this standard did not have a material impact on our consolidated financial statements.

Collaborative Arrangements

In November 2018, the FASB issued ASU No. 2018-18, *Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606*. This standard clarifies that certain transactions between collaborative arrangement participants should be accounted for as revenue under Topic 606 when the collaborative arrangement participant is a customer for a promised good or service that is distinct within the collaborative arrangement. The guidance also precludes entities from presenting amounts related to transactions with a collaborative arrangement participant that is not a customer as revenue, unless those transactions are directly related to third-party sales.

The amendments to ASU No. 2018-18 became effective for us effective January 1, 2021. The adoption of this standard did not have a material impact on our consolidated financial statements as we have had no transactions applicable to this guidance; however, the standard may impact how we account for certain business transactions in the future.

Credit Losses

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Statements (ASU 2016-13)*. The new standard requires that expected credit losses relating to financial assets measured on an amortized cost basis and available-for-sale debt securities be recorded through an allowance for credit losses. It also limits the amount of credit losses to be recognized for available-for-sale debt securities to the amount by which carrying value exceeds fair value and also requires the reversal of previously recognized credit losses if fair value increases. We adopted this standard on January 1, 2021. The adoption of this standard did not have a material impact on our consolidated financial statements.

Income Taxes

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740)—Simplifying the Accounting for Income Taxes*. The standard simplifies various aspects of the income tax accounting guidance in Topic 740, including the elimination of exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. We adopted this standard effective January 1, 2021. The adoption of this standard did not have a material impact on our consolidated financial statements.

6. Pfizer License Agreement

In August 2018 we entered into the Pfizer License Agreement pursuant to which we were granted an exclusive, sublicensable, worldwide license under certain Pfizer patent rights, and a non-exclusive, sublicensable, worldwide license under certain Pfizer know-how to develop, manufacture and commercialize certain compounds and products, which currently constitute the entirety of our asset portfolio, in the field of treatment, prevention, diagnosis, control and maintenance of all diseases and disorders in humans, subject to the terms and conditions of the Pfizer License Agreement. Additionally, Pfizer has an exclusive right of first negotiation in the event that we seek to enter into any significant transaction with a third party with respect to a product either globally or in certain designated countries. Significant transactions include exclusive licenses, assignments, sales, exclusive co-promotion arrangements, and other transfers of all commercial rights to a product globally or in certain designated countries, as well as exclusive distribution agreements globally or in certain designated countries.

Under the Pfizer License Agreement, we are solely responsible for the development, manufacture, regulatory approval and commercialization of compounds and products in the field. We are also required to use commercially reasonable efforts to develop and seek regulatory approval for a product that contains or incorporates one of certain scheduled compounds to exert a therapeutic effect on certain targets in each of the following countries: United Kingdom, Germany, France, Italy, Spain, China, Japan and the United States, each a major market country. We are also required to use commercially reasonable efforts to commercialize each such product, if approved, in each major market country in which regulatory approval for such product has been obtained.

As partial consideration for the licensed assets, we issued Pfizer 3,833,333.33 shares of Old Cerevel Series A-2 Preferred Stock with an estimated fair value of \$100.4 million, or \$26.20 per share. We also reimbursed Pfizer for \$11.0 million of direct transaction costs related to the Pfizer License Agreement, bringing the total consideration to \$111.4 million, which was recorded as a charge to research and development expense as these assets had not yet reached technological feasibility and held no alternative future use at the time of the Transaction. The fair value of the Series A-2 Preferred Stock was established using an income approach for the valuation of the company's business enterprise value at the Formation Transaction Date, and the option pricing method for the fair value of all shares subject to the Formation Transaction. Upon the closing of the Business Combination Transaction, Pfizer's 3,833,333.33 shares of Series A-2 Preferred Stock were converted into 26,149,211 shares of common stock after giving effect to the anti-dilution protections and the Exchange Ratio established by the Business Combination.

We accounted for the acquisition of the Pfizer License Agreement as an asset acquisition. The Pfizer License Agreement is limited to the intellectual property and rights to develop certain non-commercially approved compounds with no existing revenues and we did not acquire an organized workforce of Pfizer employees nor any third-party arrangements that constitute a substantive process capable of developing the compounds. The assets acquired were measured based on the fair value of the Series A-2 Preferred Stock issued to Pfizer and direct transaction costs of \$11.0 million, as the fair value of the equity given was more readily determinable than the fair value of the assets received.

Under the terms of the Pfizer License Agreement, we are also required to make regulatory approval milestone payments to Pfizer, ranging from \$7.5 million to \$40.0 million, on a compound-by-compound basis, upon the first regulatory approval in the United States for the first product containing or comprised of a given compound, with the amount of the payments determined by which designated group the compound falls into and with each such group generally characterized by the compounds' stage of development. Each such regulatory approval milestone is payable only once per compound. If all of our disclosed product candidates currently under development are approved in the United States, the total aggregate amount of such regulatory approval milestones payable to Pfizer would be approximately \$220.0 million. No regulatory approval milestone payments were made or became due during the years ended December 31, 2020 and 2019.

In addition, we are required to pay Pfizer commercial milestone payments up to an aggregate of \$170.0 million per product, when aggregate net sales of products under the Pfizer License Agreement in a calendar year first reach various thresholds ranging from \$500.0 million to \$2.0 billion. Each commercial milestone payment is payable only once upon first achievement of the applicable commercial milestone. If all of our disclosed product candidates currently under development achieve all of the commercial milestones, the total aggregate amount of such commercial milestones payable to Pfizer would total approximately \$1.7 billion. No Pfizer commercial milestone payments were made or became due during the year ended December 31, 2020 and 2019.

We are also required to pay Pfizer tiered royalties on the aggregate net sales, during each calendar year, determined on a product-by-product basis, with respect to products under the Pfizer License Agreement, at percentages ranging from the low-single to mid-teens, with the royalty rate determined by which designated group the applicable compound for such product falls into and with each such group generally characterized by the compounds' stage of development, and subject to certain royalty deductions for the expiration of patent, regulatory and data exclusivity, generic competition and third-party royalty payments as set forth in the Pfizer License Agreement. The royalty term expires, on a product-by-product and country-by-country basis, on the later of (1) expiration of all regulatory or data exclusivity for such product in such country, (2) the date upon which the manufacture, use, sale, offer for sale or importation of such product in such country would no longer infringe, but for the license granted in the Pfizer License Agreement, a valid claim of the licensed patents and (3) 12 years following the first commercial sale of such product in such country. No royalty payments were made or became due in the years ended December 31, 2020 and 2019.

Pfizer can terminate the Pfizer License Agreement in its entirety upon a material breach by the company, subject to specified notice and cure provisions. However, if such material breach is with respect to one or more, but not all, products, targets or countries, Pfizer's right to terminate is only with respect to such products, targets or countries. Either party may terminate the Pfizer License Agreement in its entirety upon event of a bankruptcy, insolvency or other similar proceeding of the other party or a force majeure event that prohibits the other party from performing for a period of time. Absent early termination, the term of the Pfizer License Agreement will continue on a country-by-country basis and product-by-product basis, until the expiration of the royalty term for the country and the product. Upon Pfizer's termination of the Pfizer License Agreement for our material breach or either party's termination for bankruptcy, insolvency or other similar proceeding or force majeure, we would grant Pfizer an exclusive, sublicensable, royalty-free, worldwide, perpetual license under certain intellectual property we develop during the term of the Pfizer License Agreement.

7. Equity Commitment and Share Purchase Option

Equity Commitment

In connection with the Formation Transaction, we entered into a Stock Purchase Agreement with Pfizer and Bain Investor pursuant to which Bain Investor contributed \$115.0 million in exchange for 6,900,000 shares of Old Cerevel Series A-1 Preferred Stock and 4,600,000 shares of Old Cerevel Series A Common Stock. Additionally, Bain Investor had the ability, pursuant to conditions set forth in more detail below, to purchase a combination of additional shares of Series A-1 Preferred Stock and Series A Common Stock at a price of \$10.00 per share. The Stock Purchase Agreement, among other things, provided that if we had not received \$350.0 million in aggregate gross cash proceeds in exchange for equity interests, which such amount includes the proceeds received in the initial financing and subsequent financings and is referred to as the Financing Threshold, by September 24, 2022, Bain Investor would have been required to purchase that amount of shares of our common stock such that the Financing Threshold would have been met;

- if any time, prior to the Financing Threshold having been met, our cash balance was equal to or less than \$10.0 million, Bain Investor would have been required to purchase an amount of additional shares of our Series A-1 Preferred Stock and Series A Common Stock that allowed us to maintain a reasonable level of cash to fund our operations in accordance with the previously agreed development plan for at least six months; and
- until the time the Financing Threshold was met, Bain Investor had the right to purchase up to that amount of shares of Series A-1 Preferred Stock and Series A Common Stock at a purchase price of \$10.00 per share that results in the Financing Threshold having been met.

In June 2019, pursuant to the Stock Purchase Agreement, Bain Investor contributed an additional \$0.1 million in exchange for additional shares of Series A-1 Preferred Stock and shares of Series A Common Stock. In December 2019, pursuant to the Stock Purchase Agreement, Bain Investor contributed an additional \$60.0 million in exchange for additional shares of Series A-1 Preferred Stock and shares of Series A Common Stock. In July 2020, pursuant to the Stock Purchase Agreement, Bain Investor contributed an additional \$25.0 million in exchange for additional shares of Series A-1 Preferred Stock and shares of Series A Common Stock. As a result of these transactions, the remaining Equity Commitment as of September 30, 2020 was \$149.9 million.

Upon closing of the Business Combination Transaction, the remaining Equity Commitment of \$149.9 million was considered satisfied and the Equity Commitment liability was remeasured to its final fair value of zero.

Share Purchase Option

Under the terms of the Stock Purchase Agreement entered into in connection with the Formation Transaction, Bain Investor retained an option to purchase a combination of shares of Series A-1 Preferred Stock and Common Stock at \$10.00 per share up to an aggregate amount of \$100.0 million, exercisable any time after the Equity Commitment is fulfilled and prior to the earlier of the company completing an IPO or the company receiving aggregate cash proceeds of \$450.0 million from the issuance of equity securities inclusive of any proceeds received pursuant to the Share Purchase Option. Pfizer has rights to participate in the purchase of shares of Series A-1 Preferred Stock and Series A Common Stock upon exercise of the Share Purchase Option; however, any such participation would not increase the number of shares available under the Share Purchase Option.

Upon closing of the Business Combination Transaction, the remaining Share Purchase Option liability was remeasured to its final fair value of zero.

Fair Value of Equity Commitment and Share Purchase Option

During 2020 and 2019, a hybrid methodology that combines both an income approach and a market approach was used to estimate the fair value of these financial instruments and incorporated a probability weighted expected return (PWERM) related to pre-IPO funding. As of December 31, 2019, and throughout 2020, until the Equity Commitment and Share Purchase Option were terminated upon completion of the Business Combination Transaction, these financial instruments were valued based upon a probability weighted-average of two separate models prepared following an income approach and a market approach. The fair value of the funding obligation under each model was estimated as the net present value of the anticipated future funding, reduced by the value of the additional shares of preferred and common stock that would be exchanged for future funding.

Discount rates in our valuation models represented a measure of the credit risk associated with settling the financial instruments. The expected dividend yield is assumed to be zero as we have never paid dividends and do not have current plans to pay any dividends on our common stock. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period.

The following table represents the key inputs used in the fair value calculation for the financial instruments:

| | As of December 31, | |
|--|-----------------------|-----------------|
| | 2020 | 2019 |
| Risk free interest rate | — | 1.57% - 1.59% |
| Expected term (in years) | — | 0.36 - 1.42 |
| Expected volatility | — | 105.0% - 135.0% |
| Expected dividend yield | — | 0.0% |
| Fair value of Series A-1 Preferred Stock per share | \$ — | \$ 16.35 |
| Fair value of Series A Common Stock per share | \$ — | \$ 16.35 |

8. Fair Value Measurements

The following table presents information about our financial assets and liabilities measured at fair value on a recurring basis and indicates the level of fair value hierarchy utilized to determine such fair values:

| | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) | Total |
|---|---|---|--|-------------------|
| As of December 31, 2020 (In thousands) | | | | |
| Assets: | | | | |
| Cash equivalents—money market funds | \$ 383,623 | \$ — | \$ — | \$ 383,623 |
| Restricted cash—money market funds | 4,200 | — | — | 4,200 |
| Total Assets | <u>\$ 387,823</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 387,823</u> |
| Liabilities: | | | | |
| Equity Commitment | \$ — | \$ — | \$ — | \$ — |
| Share Purchase Option | — | — | — | — |
| Total Liabilities | <u>\$ —</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ —</u> |
| As of December 31, 2019 (In thousands) | | | | |
| Assets: | | | | |
| Cash equivalents—money market funds | \$ 79,551 | \$ — | \$ — | \$ 79,551 |
| Restricted cash—money market funds | 4,131 | — | — | 4,131 |
| Total Assets | <u>\$ 83,682</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 83,682</u> |
| Liabilities: | | | | |
| Equity Commitment | \$ — | \$ — | \$ (2,000) | \$ (2,000) |
| Share Purchase Option | — | — | (260) | (260) |
| Total Liabilities | <u>\$ —</u> | <u>\$ —</u> | <u>\$ (2,260)</u> | <u>\$ (2,260)</u> |

As described in Note 7, *Equity Commitment and Share Purchase Option*, to these consolidated financial statements, the Equity Commitment and Share Purchase Option represent the only Level 3 assets and liabilities carried at fair market value as of December 31, 2019. The fair value measurements of the Equity Commitment and Share Purchase Option were sensitive to changes in the unobservable inputs used to value the financial instruments. Changes in the estimated future funding dates or fair value of the company's stock could result in changes to the fair value of each financial instrument. There were no transfers between Level 1, Level 2 and Level 3 during the year ended December 31, 2020 and 2019.

An analysis of the changes in the Equity Commitment and Share Purchase Option are summarized as follows:

| <i>Equity Commitment (In thousands)</i> | 2020 | 2019 |
|---|-------------|-------------------|
| Beginning (liability) asset balance | \$ (2,000) | \$ 11,412 |
| Change in fair value | (3,530) | (51,562) |
| Partial settlement of Equity Commitment liability upon issuance of Series A-1 Preferred Stock and Series A Common Stock | 5,530 | 38,150 |
| Ending asset (liability) balance | <u>\$ —</u> | <u>\$ (2,000)</u> |
| <i>Share Purchase Option (In thousands)</i> | 2020 | 2019 |
| Beginning liability balance | \$ (260) | \$ (5,380) |
| Change in fair value | 260 | 5,120 |
| Ending liability balance | <u>\$ —</u> | <u>\$ (260)</u> |

9. Financial Statement Components

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following:

| <i>(In thousands)</i> | As of December 31, | |
|---|-----------------------|-----------------|
| | 2020 | 2019 |
| Prepaid clinical trial services | \$ 172 | \$ 4,421 |
| Prepaid research and development expenses | 1,650 | 1,876 |
| Prepaid insurance | 3,675 | 142 |
| Other prepaid expenses | 1,280 | 1,018 |
| Other current assets | 160 | 69 |
| Prepaid expenses and other current assets | <u>\$ 6,937</u> | <u>\$ 7,526</u> |

Property and Equipment, Net

Property and equipment, net consisted of the following:

| <i>(In thousands)</i> | As of December 31, | |
|--------------------------------|-----------------------|-----------------|
| | 2020 | 2019 |
| Computer equipment | \$ 96 | \$ 96 |
| Furniture and fixtures | 322 | 29 |
| Laboratory equipment | 101 | — |
| Leasehold improvements | — | 328 |
| Construction-in-progress | 23,728 | 1,205 |
| Less: Accumulated depreciation | (82) | (182) |
| Property and equipment, net | <u>\$ 24,165</u> | <u>\$ 1,476</u> |

Construction-in-progress primarily relates to the fit-out of our new headquarters in Cambridge, Massachusetts. Depreciation expense totaled \$0.2 million for the years ended December 31, 2020 and 2019.

Other Long-Term Assets

Other long-term assets consisted of the following:

| <i>(In thousands)</i> | As of December 31, | |
|--|-----------------------|-----------------|
| | 2020 | 2019 |
| Deferred expenses associated with financing activities | \$ — | \$ 1,485 |
| Other prepaid expenses, net of current portion | 1,389 | — |
| Other | 500 | 622 |
| Other long-term assets | <u>\$ 1,889</u> | <u>\$ 2,107</u> |

As of December 31, 2020, other prepaid expenses, net of current portion primarily consists of deposits paid under certain CRO agreements that will be held until the completion of the related clinical trials which are anticipated to end more than twelve months from the balance sheet date.

As of December 31, 2019, other long-term assets include approximately \$1.5 million of deferred expenses for professional fees incurred directly associated with our previously anticipated IPO. In June 2020, upon signing of the term sheet for our Business Combination Transaction, we abandoned our previously anticipated IPO and other financing activities and wrote-off approximately \$2.5 million deferred financing costs directly associated with those efforts.

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following:

| <i>(In thousands)</i> | As of December 31, | |
|--|-----------------------|------------------|
| | 2020 | 2019 |
| External research and development services | \$ 8,893 | \$ 3,257 |
| Accrued compensation and personnel costs | 9,489 | 3,111 |
| Accrued construction-in-progress | 2,618 | 433 |
| Accrued deferred expenses associated with financing activities | 96 | 515 |
| Professional fees and consulting services | 1,150 | 2,785 |
| Other | 273 | 74 |
| Accrued expenses and other current liabilities | <u>\$ 22,519</u> | <u>\$ 10,175</u> |

Other Long-Term Liabilities

Other long-term liabilities consisted of the following:

| <i>(In thousands)</i> | As of December 31, | |
|---------------------------------|-----------------------|-----------------|
| | 2020 | 2019 |
| Equity Commitment liability | \$ — | \$ 2,000 |
| Share Purchase Option liability | — | 260 |
| Other | 236 | 28 |
| Other long-term liabilities | <u>\$ 236</u> | <u>\$ 2,288</u> |

Other Income (Expense), net

Other income (expense), net consisted of the following:

| <i>(In thousands)</i> | As of December 31, | |
|---|-----------------------|--------------------|
| | 2020 | 2019 |
| Loss on fair value remeasurement of Equity Commitment | \$ (3,530) | \$ (51,562) |
| Gain on fair value remeasurement of Share Purchase Option | 260 | 5,120 |
| Other, net | (4) | 9 |
| Other income (expense), net | <u>\$ (3,274)</u> | <u>\$ (46,433)</u> |

10. Leases

We lease certain office space and equipment. At the inception of an arrangement, we determine whether the arrangement is or contains a lease based on the unique facts and circumstances present. Leases with a term greater than one year are recognized on the balance sheet as operating lease assets, operating lease liabilities, current portion and operating lease liabilities, net of current portion. We have elected not to recognize leases with terms of one year or less on our balance sheets. We have also elected to account for the lease and non-lease components as a combined lease component for real estate leases. For non-real estate leases, the lease component and non-lease component will be accounted for as separate components, with the contract consideration being allocated based on the fair values of the components. Operating lease liabilities and their corresponding operating lease assets are recorded based on the present value of lease payments over the expected remaining lease term. The interest rate implicit in lease contracts is typically not readily determinable. As a result, we utilize our incremental borrowing rates, which are the rates incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment.

In January 2019 we entered into an operating lease for office space at 131 Dartmouth Street, Boston, Massachusetts. The lease commenced in April 2019 and terminated on November 30, 2020.

In July 2019 we entered into an operating lease with a ten-year term located at 222 Jacobs Street, Cambridge Massachusetts. This space serves as our corporate headquarters and is comprised of office and laboratory space. Under the terms of the lease, we have the option to extend for two five-year terms and we have assessed whether to include the renewal periods as part of the lease term based on a variety of factors, such as the fair market value rental rate, the economic life of leasehold improvements, as well as the current and anticipated stages of the company at the inception and conclusion of the original lease term. The renewal options have been excluded from the lease term and will be reassessed, as necessary.

In September 2020 we amended the lease to add approximately 1,000 square feet to bring the total space to approximately 61,000 square feet. Operating leases are amortized over the lease term and included in costs and expenses in the consolidated statements of operations and comprehensive loss. Variable lease costs are recognized in costs and expenses in the consolidated statements of operations and comprehensive loss as incurred.

The following table contains a summary of the lease costs recognized under ASC 842 and other information pertaining to our operating leases for the years ended December 31, 2020 and 2019:

| <i>(In thousands)</i> | For the year ended December 31, 2020 | For the year ended December 31, 2019 |
|--|---|---|
| Lease cost ⁽¹⁾ | | |
| Operating lease cost | \$ 6,132 | \$ 3,467 |
| Total lease cost | <u>\$ 6,132</u> | <u>\$ 3,467</u> |
| Other information | | |
| Operating cash flows used for operating leases | \$ 6,044 | \$ 1,070 |
| Weighted-average remaining lease term (in years) | 9.17 | 9.76 |
| Weighted-average discount rate | 9.90% | 9.85% |

(1) Short-term lease costs and variable lease costs incurred for the years ended December 31, 2020 and 2019, were \$1.5 million and \$0.0 million, respectively.

As of December 31, 2020, future minimum commitments under our operating leases were as follows:

| <i>(In thousands)</i> | As of December 31, 2020 |
|---|-------------------------------|
| Maturity of lease liabilities | |
| Fiscal year ended December 31, 2021 | \$ 5,737 |
| Fiscal year ended December 31, 2022 | 5,918 |
| Fiscal year ended December 31, 2023 | 6,096 |
| Fiscal year ended December 31, 2024 | 6,289 |
| Fiscal year ended December 31, 2025 | 6,457 |
| Thereafter | 29,084 |
| Total future lease payments | \$ 59,581 |
| Less: Tenant improvement allowance receivable | (5,595) |
| Less: Effect of discounting | (20,981) |
| Present value of lease liabilities | \$ 33,005 |

The following table summarizes the presentation of our operating leases in our consolidated balance sheets as of December 31, 2020 and 2019:

| <i>(In thousands)</i> | As of December 31, 2020 | As of December 31, 2019 |
|------------------------------|-------------------------------|-------------------------------|
| Assets | | |
| Operating lease assets | \$ 24,459 | \$ 26,015 |
| Total lease assets | \$ 24,459 | \$ 26,015 |
| Liabilities | | |
| Current lease liabilities | \$ 2,036 | \$ 2,592 |
| Noncurrent lease liabilities | 30,969 | 25,819 |
| Total lease liabilities | \$ 33,005 | \$ 28,411 |

11. Stockholders' Equity

The consolidated statement of stockholders' equity has been retroactively adjusted for all periods presented to reflect the Business Combination and reverse recapitalization as defined in Note 3, *Business Combination*.

Preferred Stock

Upon closing of the Business Combination Transaction, pursuant to the terms of the Amended and Restated Certificate of Incorporation, the Company authorized 10,000,000 shares of preferred stock with a par value \$0.0001 per share. Our board of directors has the authority, without further action by the stockholders to issue such shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, and to fix the dividend, voting, and other rights, preferences and privileges of the shares. There were no issued and outstanding shares of preferred stock as of December 31, 2020.

In connection with the closing of the Business Combination Transaction, all previously issued and outstanding Series A-1 Convertible Preferred Stock and Series A-2 Convertible Preferred Stock were exchanged for common stock in Cerevel pursuant to the Exchange Ratio established in the Business Combination Agreement, subject to certain anti-dilution protections related to the Series A-2 Convertible Preferred Stock and the redemption feature that was redeemed related to the July Additional Financing Shares issued to Bain Investor. All fractional shares were rounded down.

Common Stock

Pursuant to the terms of the Amended and Restated Certificate of Incorporation, we authorized 500,000,000 shares of common stock with a par value \$0.0001. Immediately following closing of the Business Combination Transaction and as of December 31, 2020, there were 127,123,954 shares of common stock issued and outstanding.

As discussed in Note 3, *Business Combination*, we have retroactively adjusted the shares issued and outstanding prior to October 27, 2020 to give effect to the Exchange Ratio established in the Business Combination Agreement to determine the number of shares of common stock into which they were converted.

Voting

The holders of our common stock are entitled to one vote for each share of common stock held at all meetings of stockholders (and written actions in lieu of meetings), and there is no cumulative voting.

Dividends

Common stockholders are entitled to receive dividends whenever funds are legally available and when declared by the board of directors. No dividends have been declared to date.

Warrants

ARYA issued public warrants and private placement warrants (collectively, the warrants) in its Initial Public Offering in June 2020. Upon the consummation of the Business Combination Transaction each outstanding warrant of ARYA become one warrant to purchase one share of Cerevel Therapeutics Holdings, Inc. Pursuant to the agreement, no fractional warrants were issued upon separation of the units and only whole warrants will trade. If a holder would be entitled to receive a fractional warrant, we rounded down to the nearest whole number of warrants to be issued to the warrant holder. None of the terms of the warrants were modified as a result of the Business Combination Transaction. Immediately following the Business Combination and as of December 31, 2020, there were 4,983,314 public warrants and 166,333 private placement warrants outstanding.

These warrants will become exercisable beginning on June 9, 2021. Each whole warrant entitles the holder to purchase one share of common stock at an exercise price of \$11.50 per share. The warrants will expire five years after the completion of the Business Combination, or earlier upon redemption or liquidation.

12. Equity-Based Compensation

Equity-based Compensation Expense

The following table summarizes equity-based compensation expense included in our consolidated statements of operations and comprehensive loss:

| <i>(In thousands)</i> | For the periods ended December 31, | |
|---|---------------------------------------|-----------------|
| | 2020 | 2019 |
| Research and development | \$ 3,239 | \$ 2,602 |
| General and administrative | 7,282 | 5,709 |
| Total equity-based compensation expense included in total operating expense | <u>\$ 10,521</u> | <u>\$ 8,311</u> |

Equity Incentive Plans

2018 Old Cerevel Equity Incentive Plan

Our 2018 Old Cerevel Equity Incentive Plan, as amended, (the 2018 Plan) provided for us to sell or issue common stock or restricted common stock, or to grant incentive stock options or nonqualified stock options for the purchase of common stock, to employees, officers, directors, consultants and advisors. Under the 2018 Plan incentive stock options could only be granted to employees. The 2018 Plan was administered by the plan administrator, provided therein, which had discretionary authority, subject only to the express provisions of the 2018 Plan, to interpret the 2018 Plan; determine eligibility for and grant awards; determine form of settlement of awards

(whether in cash, shares of stock, other property or a combination of the foregoing), determine, modify, or waive the terms and conditions of any award; prescribe forms, rules and procedures; and otherwise do all things necessary to carry out the purposes of the 2018 Plan. The exercise price of each award requiring exercise was 100% of the fair market value of stock subject to the award, determined as of the date of the grant, or such higher amount as the Administrator determined in connection with the grant, and the term of stock option was not greater than ten years. The vesting and other restrictions were determined at the discretion of the plan administrator. We generally grant equity-based awards with service, market and performance conditions. Upon completion of the Business Combination Transaction we ceased granting awards under the 2018 Plan and, as described below, all awards under the 2018 Plan were converted into awards under the 2020 New Cerevel Plan with the same terms and conditions.

Prior to the closing of the Business Combination Transaction, the number of stock options granted under our 2018 Plan represented the maximum Available Vesting Amount (defined below) number of shares eligible to vest. The Available Vesting Amount was equal to the number of shares subject to the stock option multiplied by an equity ratio of total capital received from investors (up to a maximum of \$350.0 million) divided by \$350.0 million. The total amount of shares for each award is capped at a specified maximum percentage of our fully diluted shares for each award, which for all awards, in total, represents 10% of our fully diluted shares at the point in time first \$350 million of funding is achieved. Based on the terms of the awards, we concluded that such awards include both market and performance conditions. As a result of our Business Combination Transaction, the final Available Vesting Amount under our 2018 Plan was achieved due to the remaining Equity Commitment being satisfied by the funding obtained during the Business Combination and concurrent PIPE Financing, including investors other than the Bain Investor. The number of shares available to vest was reduced to be less than the maximum number of shares eligible if Bain Investor had funded the entire Equity Commitment. As such, we recorded the fair value of the stock options to account for the change in probability of the performance condition in which Bain Investor satisfied part of the Equity Commitment and the Business Combination and PIPE Financing were considered to satisfy the remaining Equity Commitment by recording a cumulative catch-up adjustment as if the performance condition achieved had been applied since the grant date. Upon satisfaction of the performance condition 3,554,598 Old Cerevel options remained outstanding under the 2018 Plan.

2020 Old Cerevel Equity Incentive Plan

On July 27, 2020, our Board of Directors approved the 2020 Old Cerevel Equity Incentive Plan (the Old 2020 Plan), pursuant to which 355,888 shares of common stock were reserved for issuance. The vesting eligibility and administration of our Old 2020 Plan is substantially identical to our 2018 Plan. Upon completion of the Business Combination Transaction we ceased granting awards under the Old 2020 Plan and, as described below, all awards under the Old 2020 Plan were converted into awards under the New Cerevel 2020 Plan with the same terms and conditions. As of October 27, 2020, prior to the Business Combination Transaction, 337,792 Old Cerevel options remained outstanding under the Old 2020 Plan.

Conversion of Awards

Each Old Cerevel option from our 2018 Plan and Old 2020 Plan that was outstanding immediately prior to the Business Combination Transaction, whether vested or unvested, was converted into an option to purchase a number of shares of common stock (each such option, an "Exchanged Option") equal to the product (rounded down to the nearest whole number) of (i) the number of shares of Old Cerevel common stock subject to such Old Cerevel option immediately prior to the Business Combination and (ii) the Exchange Ratio, at an exercise price per share (rounded up to the nearest whole cent) equal to (A) the exercise price per share of such Old Cerevel option immediately prior to the consummation of the Business Combination, divided by (B) the Exchange Ratio. Except as specifically provided in the Business Combination Agreement, following the Business Combination, each Exchanged Option will continue to be governed by the same terms and conditions (including vesting and exercisability terms) as were applicable to the corresponding former Old Cerevel option immediately prior to the consummation of the Business Combination. All stock option activity was retroactively restated to reflect the Exchanged Options.

As of the Closing Date, the 3,554,598 options and 25,000 restricted stock units ("RSUs") outstanding under the 2018 Plan were converted into 10,144,864 options and 71,350 RSUs upon completion of the Business Combination after effect of the Exchange Ratio. As of the Closing Date, the 337,792 stock options awards outstanding under the 2020 Plan were converted into 964,051 stock options upon completion of the Business Combination after effect of the Exchange Ratio. This effect of the Exchange Ratio has been retroactively adjusted throughout our consolidated financial statements.

New Cerevel 2020 Plan and ESPP

On October 27, 2020, our Board of Directors approved the 2020 New Cerevel Equity Incentive Plan (2020 Plan), pursuant to which 24,050,679 shares of common stock were reserved for issuance. As of December 31, 2020, 11,514,661 shares remain available for future issuance under the 2020 Plan. The 2020 Plan provides for New Cerevel to grant incentive stock options or nonqualified stock options for the purchase of common stock, stock appreciation rights, restricted stock awards, restricted stock units, unrestricted stock Awards, cash-based awards, and dividend equivalent rights, to employees, officers, directors and consultants of New Cerevel. Incentive stock options may only be granted to employees. The 2020 Plan is administered by the plan administrator, provided therein, which has discretionary authority, subject only to the express provisions of the 2020 Plan, to interpret the 2020 Plan; determine eligibility for and grant awards; determine form of settlement of awards (whether in cash, shares of stock, other property or a combination of the foregoing), determine, modify, or waive the terms and conditions of any award; prescribe forms, rules and procedures; and otherwise do all things necessary to carry out the purposes of the 2020 Plan.

At a special meeting of stockholders held on October 26, 2020, stockholders considered and approved the Cerevel Therapeutics Holdings, Inc. Employee Stock Purchase Plan (the ESPP). The ESPP provides employees with an opportunity to acquire shares of common stock at a discounted price. An aggregate of 1,655,924 shares were initially reserved and available for issuance under the ESPP. The ESPP provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning on January 1, 2021, by 1.0% of the outstanding number of shares of common stock on the immediately preceding December 31, or such lesser amount as determined by our board of directors; provided that the total number of shares of common stock that become available for issuance under the ESPP will never exceed 16,559,240. If our capital structure changes because of a stock dividend, stock split or similar event, the number of shares that can be issued under the ESPP will be appropriately adjusted. No awards were granted under the ESPP as of December 31, 2020.

Stock Options

Stock options granted to employees under our plans generally vest, if at all, as follows: 25% will vest on the first anniversary of the vesting start date, with the remaining 75% to vest ratably in 36 equal monthly installments thereafter until the award fully vests upon the fourth anniversary of the vesting start date. The vesting of these awards is generally contingent upon the respective grantee's continued employment.

Stock options granted to our non-employee directors vest, if at all, in 36 monthly installments through the third anniversary of the grant date.

The assumptions that we used to determine the fair value of stock options granted to employees and directors were as follows, presented on a weighted average basis:

| | For the periods ended December 31, | |
|--------------------------|---------------------------------------|-------|
| | 2020 | 2019 |
| Risk free interest rate | 0.76% | 2.10% |
| Expected term (in years) | 6.13 | 6.23 |
| Expected volatility | 99.1% | 81.1% |
| Expected dividend yield | 0.0% | 0.0% |

The following table summarizes our stock option activity as follows:

| | Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Life (in years) | Aggregate Intrinsic Value (in thousands) |
|--|---------------------|--|---|---|
| Outstanding at December 31, 2019 | 14,261,340 | \$ 5.20 | 9.49 | \$ 23,768 |
| Granted | 3,370,353 | 9.92 | | |
| Exercised | — | — | | |
| Forfeited | (236,057) | 6.80 | | |
| Canceled due to achievement of performance condition | (4,930,968) | 5.40 | | |
| Outstanding at December 31, 2020 | 12,464,668 | \$ 6.37 | 8.57 | \$ 127,301 |
| Options exercisable as of December 31, 2020 | 4,250,006 | \$ 5.20 | 8.18 | \$ 48,377 |

The aggregate intrinsic value represents the difference between the closing stock price of our common stock and the exercise price of in-the-money options. Our closing stock price as reported on NASDAQ as of December 31, 2020 was \$16.58.

Stock options granted in 2020 and 2019, on an as-converted basis based upon the Exchange Ratio, had weighted average grant-date fair values of \$6.12 and \$4.91, respectively. No stock options were exercised during the years ended December 31, 2020 and 2019.

As of December 31, 2020 and 2019, total unrecognized equity-based compensation expense relating to stock options was \$22.7 million and \$16.6 million, respectively. This amount is expected to be recognized over a weighted average period of 3.0 years and 1.6 years, respectively.

Restricted Stock Units

Restricted stock unit awards granted under the Plan generally vest in three equal annual installments beginning on the first anniversary of the vesting start date.

The following table summarizes our restricted stock activity as follows:

| | Restricted Stock Units | |
|---------------------------------|------------------------|--|
| | Number of Units | Weighted- Average Grant Date Fair Value |
| Non-vested at December 31, 2019 | 114,160 | \$ 2.00 |
| Granted | — | — |
| Vested | (42,810) | 1.97 |
| Forfeited | — | — |
| Non-vested at December 31, 2020 | 71,350 | \$ 2.02 |

The total fair value of restricted stock units that vested was \$0.1 million for the years ended December 31, 2020 and 2019.

As of December 31, 2020 and 2019, total unrecognized equity-based compensation expense relating to restricted stock unit awards was \$0.1 million and \$0.2 million, respectively. This amount is expected to be recognized over a weighted average period of 1.2 years and 2.2 years, respectively.

13. Net Loss Per Share

As a result of the Business Combination Transaction, the Company has retroactively restated the weighted average shares outstanding prior to October 27, 2020 to give effect to the Exchange Ratio.

The following table sets forth the computation of the basic and diluted net loss per share:

| | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 |
|--|---|---|
| <i>(In thousands, except share amounts and per share data)</i> | | |
| Numerator: | | |
| Net loss | \$ (152,142) | \$ (128,389) |
| Benefit related to the redemption of Series A-1 redeemable convertible preferred stock at less than the carrying value | 3,871 | — |
| Net loss attributable to common stockholders | <u>\$ (148,271)</u> | <u>\$ (128,389)</u> |
| Denominator: | | |
| Weighted-average shares used in calculating net loss per share, basic and diluted | <u>73,643,315</u> | <u>44,209,264</u> |
| Net loss per share attributable to common stockholders, basic and diluted | <u>\$ (2.01)</u> | <u>\$ (2.90)</u> |

Our net loss in our loss per share calculation in the table above was adjusted to derive net loss attributable to common stockholders reflecting the benefit related to the redemption of the outstanding Series A-1 redeemable convertible preferred stock at less than carrying value which was treated as a return from the preferred stockholder. A redemption of Series A redeemable common stock for an amount less than the carrying value also took place in 2020; however, we did not recognize the benefit for contributions from redeemable common stock at less than carrying value as income was not allocated to such common stock under two-class method. As such, the redemption of the Series A redeemable common stock at less than carrying value did not impact our numerator in our net loss per share calculation.

Since we were in a loss position for all periods presented, diluted net loss per share is the same as basic net loss per share as the inclusion of all potential dilutive securities would have been anti-dilutive. The shares in the table below were excluded from the calculation of diluted net loss per share, prior to the use of the treasury stock or two class methods, due to their anti-dilutive effect:

| | As of December 31, 2020 | As of December 31, 2019 |
|--|-------------------------------|-------------------------------|
| Stock options outstanding | 12,464,668 | 14,261,340 |
| Restricted stock units outstanding | 71,350 | 114,160 |
| Warrants | 5,149,647 | — |
| Shares to be issued upon settlement of remaining Equity Commitment | — | 49,929,121 |
| Shares to be issued upon exercise of Share Purchase Option | <u>—</u> | <u>28,540,304</u> |
| Total | <u>17,685,665</u> | <u>92,844,925</u> |

14. Income Taxes

A reconciliation of our provision for income tax expenses computed at the statutory federal income tax rate to income taxes as reflected in the consolidated financial statements is as follows:

| | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 |
|---|---|---|
| Statutory tax rate | 21.0% | 21.0% |
| State tax expense, net of federal benefit | 5.7% | 4.0% |
| Executive compensation | (1.1)% | — |
| Non-deductible fair value adjustment | (0.5)% | (7.5)% |
| Other non-deductible expenses | — | (0.1)% |
| Tax credits | 2.6% | 1.3% |
| Other | 0.2% | — |
| Valuation allowance | (27.9)% | (18.7)% |
| Effective tax rate | 0.0% | 0.0% |

Current and Deferred Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The significant components of our deferred tax assets and liabilities are summarized as follows:

| (In thousands) | As of December 31, | |
|---|--------------------|----------------|
| | 2020 | 2019 |
| Deferred tax assets | | |
| Net operating loss carryforwards | \$ 57,949 | \$ 22,086 |
| Operating lease liabilities | 8,895 | 7,697 |
| Tax credits | 6,217 | 1,819 |
| Equity-based compensation | 2,983 | 2,236 |
| Accruals and reserves | 2,361 | 720 |
| Amortization | 736 | 862 |
| Other deferred tax assets | — | 33 |
| Total gross deferred tax assets | 79,141 | 35,453 |
| Valuation allowance | (68,970) | (26,447) |
| Total deferred tax assets | 10,171 | 9,006 |
| Deferred tax liabilities | | |
| Depreciation | (1,772) | — |
| Operating lease assets | (6,592) | (7,014) |
| Prepaid expenses | (1,809) | (2,020) |
| Total deferred tax liabilities | (10,173) | (9,034) |
| Net deferred income tax assets (liabilities) | \$ (2) | \$ (28) |

We have recorded a valuation allowance against our deferred tax assets in each of the years ended December 31, 2020 and 2019, because we believe that it is more likely than not that these assets will not be realized. The valuation allowance increased by approximately \$42.5 million and \$24.0 million during the years ended December 31, 2020 and 2019, respectively. The increases were primarily as a result of the increase in our unbenefited net operating loss and tax credits for both periods.

Significant components of deferred income tax assets and liabilities include temporary differences related to net operating loss carryforwards, lease liabilities, stock compensation, and tax credits. Deferred income tax assets in the table above include approximately \$213.9 million of federal net operating loss carryforwards, all of which have an indefinite carryforward period. The deferred tax assets also include approximately \$206.2 million of state net operating loss carryforwards which begin to expire in 2038 through 2040. The Company also had federal and state research and development tax credits of \$5.7 million and \$0.7 million, respectively, which expire at various dates through 2040 for federal purposes and 2035 for state purposes. Under the provisions of the Internal Revenue Code, the net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. Net operating loss and tax credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant stockholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, respectively, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. The Company has not conducted an assessment to determine whether there may have been a Section 382 or 383 ownership change.

For financial reporting purposes, loss before income taxes includes \$152.2 million and \$128.3 million for the years ended December 31, 2020 and 2019, respectively. We have no foreign operations and as such, the pretax loss is generated entirely in the United States.

The income tax (benefit) provision consists of the following:

| <i>(In thousands)</i> | For the Year Ended December 31, 2020 | For the Year Ended December 31, 2019 |
|--|---|---|
| Current tax expense | | |
| Federal | \$ — | \$ — |
| State | 2 | 17 |
| Foreign | — | — |
| Deferred tax expenses | | |
| Federal | (26) | 28 |
| State | — | — |
| Foreign | — | — |
| Income tax (benefit) provision, net | <u>\$ (24)</u> | <u>\$ 45</u> |

As of December 31, 2020 and 2019, we had no unrecognized tax benefits. As of December 31, 2020 and 2019, we had no accrued interest or penalties related to uncertain tax positions and no amounts have been recognized in our consolidated statements of operations.

We will recognize interest and penalties related to uncertain tax positions in income tax expense. For the years ended December 31, 2020 and 2019, we generated research credits but have not conducted a study to document the qualified activities. This study may result in an adjustment to our research and development credit carryforwards; however, until a study is completed, and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against our research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the deferred tax asset established for the research and development credit carryforwards and the valuation allowance.

We file income tax returns in the U.S. federal tax jurisdiction and state jurisdictions. Our initial tax return period for U.S. federal income taxes was the 2018 period and we currently remain open to examination under the statute of limitations by the Internal Revenue Service and state jurisdictions for all periods since Inception.

15. Legal Proceedings

We, from time to time, may be party to litigation arising in the ordinary course of business. We were not subject to any material legal proceedings during the years ended December 31, 2020, or 2019, and, to the best of our knowledge, no material legal proceedings are currently pending or threatened.

16. Commitments and Contingencies

As of December 31, 2020, we have several ongoing clinical studies in various clinical trial stages. Our most significant contracts relate to agreements with CROs for clinical trials and preclinical studies and clinical manufacturing organizations (CMOs), which we enter into in the normal course of business. The contracts with CROs and CMOs are generally cancellable, with notice, at our option.

Guarantees and Indemnification Obligations

We enter into standard indemnification agreements in the ordinary course of business. Pursuant to these agreements, we indemnify and agree to reimburse the indemnified party for losses and costs incurred by the indemnified party in connection with any patent, copyright, trade secret or other intellectual property or personal right infringement claim by any third party with respect to our technology. The term of these indemnification agreements is generally perpetual after execution of the agreement. In addition, we have entered into indemnification agreements with members of our board of directors that will require us, among other things, to indemnify them against certain liabilities that may arise by reason of its status or service as directors or officers. The maximum potential amount of future payments we could be required to make under these indemnification agreements is unlimited. To date, we have not incurred any losses or any material costs related to this indemnification obligation and no claims with respect thereto were outstanding. We do not believe that the outcome of any claims under indemnification arrangements will have a material effect on our financial position, results of operations and cash flows, and we have not accrued any liabilities related to such obligations in our consolidated financial statements as of December 31, 2020 or 2019.

17. Employee Benefit Plans

401(k) Savings Plan

In April 2019 we implemented a 401(k) Savings Plan, which is available to substantially all regular employees in the U.S. over the age of 21. Participants may make voluntary contributions. We make matching contributions according to the 401(k) Savings Plan's matching formula. All matching contributions and participant contributions vest immediately. The expense related to our 401(k) Savings Plan primarily consists of our matching contributions.

Expense related to our 401(k) Savings Plan for the years ended December 31, 2020 and 2019, was \$1.4 million and \$0.4 million, respectively.

18. Related Party Transactions

As of December 31, 2020, Pfizer held 27,349,211 shares of common stock and had appointed two members to our board of directors. As of December 31, 2019, after the retroactive impact of the Business Combination Transaction, Pfizer held 10,940,449 shares of common stock and had appointed two members to our board of directors. For additional information on our license agreement with Pfizer, please read Note 6, *Pfizer License Agreement*, to these consolidated financial statements.

As of December 31, 2020, Bain Investor held 60,632,356 shares of common stock and had appointed four members to our Board of Directors. As of December 31, 2019, after the retroactive impact of the Business Combination Transaction, Bain Investor held 49,961,943 shares of common stock and had appointed three members to our board of directors.

Management Agreement

In connection with the initial financing, on the Formation Transaction Date, we entered into an agreement with Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP, which are entities related to Bain Investor, whereby such entities will provide certain management services to us for a fee of \$1.0 million per year, paid in quarterly, non-refundable installments (Management Agreement).

This agreement obligated to pay such entities, in the aggregate, a \$5.0 million fee upon the completion of a qualified public offering or change of control transaction, less any quarterly fees previously paid to such entities. Upon completion of our Business Combination Transaction, described in Note 3, *Business Combination*, of our audited consolidated financial statements, we paid the remaining approximately \$3.0 million of management fees payable under the Management Agreement and no additional fees remain payable pursuant to this agreement. Inclusive of this final payment made under the Management Agreement, we incurred management fees to Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP totaling \$3.8 million and \$1.0 million during the years ended December 31, 2020 and 2019, respectively.

Following the closing of the Business Combination, we entered into a new management agreement with Bain Capital Private Equity, LP and Bain Capital Life Sciences, LP providing for the expense reimbursement and indemnification of such entities.

19. Subsequent Events

We have completed an evaluation of all subsequent events after the audited balance sheet date of December 31, 2020 through March 24, 2021, the issuance date of these financial statements, to ensure that these consolidated financial statements include appropriate disclosure of events both recognized in the consolidated financial statements as of December 31, 2020, and events which occurred subsequently but were not recognized in the consolidated financial statements. We have concluded that no subsequent events have occurred that require disclosure, except as already disclosed within these consolidated financial statements.

BUSINESS COMBINATION AGREEMENT

BY AND AMONG

ARYA SCIENCES ACQUISITION CORP II,

CASSIDY MERGER SUB 1, INC.,

AND

CEREVEL THERAPEUTICS, INC.

DATED AS OF JULY 29, 2020

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BUSINESS COMBINATION AGREEMENT

This BUSINESS COMBINATION AGREEMENT (this “Agreement”), dated as of July 29, 2020, is made by and among ARYA Sciences Acquisition Corp II, a Cayman Islands exempted company (“ARYA”), Cassidy Merger Sub 1, Inc., a Delaware corporation (“Cassidy Merger Sub”), and Cerevel Therapeutics, Inc., a Delaware corporation (the “Company”). ARYA, Cassidy Merger Sub and the Company shall be referred to herein from time to time collectively as the “Parties”. Capitalized terms used but not otherwise defined herein have the meanings set forth in Section 1.1.

WHEREAS, (a) ARYA is a blank check company incorporated as a Cayman Islands exempted company on February 20, 2020 and incorporated for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses, and (b) Cassidy Merger Sub is, as of the date of this Agreement, a wholly-owned Subsidiary of ARYA that was formed for purposes of consummating the transactions contemplated by this Agreement and the Ancillary Documents;

WHEREAS, pursuant to the Governing Documents of ARYA, ARYA is required to provide an opportunity for its shareholders to have their outstanding ARYA Class A Shares redeemed on the terms and subject to the conditions set forth therein in connection with obtaining the ARYA Shareholder Approval;

WHEREAS, as of the date of this Agreement, ARYA Sciences Holdings II, a Cayman Islands exempted company (the “Sponsor”), and the Other Class B Shareholders collectively own 3,737,500 ARYA Class B Shares;

WHEREAS, concurrently with the execution of this Agreement, the Sponsor, the Other Class B Shareholders, ARYA and the Company are entering into the sponsor letter agreement (the “Sponsor Letter Agreement”), pursuant to which, among other things, the Sponsor and each Other Class B Shareholder has agreed to (a) vote in favor of this Agreement and the transactions contemplated hereby (including the Merger) and (b) waive any adjustment to the conversion ratio set forth in the Governing Documents of ARYA or any other anti-dilution or similar protection with respect to the ARYA Class B Shares (whether resulting from the transactions contemplated by the Subscription Agreements or otherwise), in each case, on the terms and subject to the conditions set forth in the Sponsor Letter Agreement;

WHEREAS, on the Closing Date, prior to the time at which the Effective Time occurs, ARYA shall transfer by way of continuation from the Cayman Islands to Delaware and domesticate as a Delaware corporation in accordance with Section 388 of the General Corporation Law of the State of Delaware (the “DGCL”) and Part XII of the Cayman Islands Companies Law (2020 Revision) (the “Domestication”), on the terms and subject to the conditions set forth in this Agreement;

WHEREAS, on the Closing Date, following the Domestication, (a) Cassidy Merger Sub will merge with and into the Company (the “Merger”), with the Company as the surviving company in the Merger and, after giving effect to the Merger, the Company will be a wholly-owned Subsidiary of ARYA, (b) each Company Share (other than the Pre-Closing Series A Shares) will be automatically converted as of the Effective Time into the right to receive a portion of the Adjusted Transaction Share Consideration and (c) the Pre-Closing Series A Shares will be collectively and automatically converted into the right to receive the Pre-Closing Series A Share Consideration, in each case, on the terms and subject to the conditions set forth in this Agreement and, in the case of clause (c), the Bain Subscription Agreement;

WHEREAS, concurrently with the execution of this Agreement, BC Perception Holdings, LP, a Delaware limited partnership (the “Bain Shareholder”), is entering into a subscription agreement, substantially in the form attached hereto as Exhibit A (the “Bain Subscription Agreement”), with ARYA, pursuant to which, among other things, (a) the Bain Shareholder has agreed to subscribe for and purchase on the Closing Date immediately following the Closing, and ARYA has agreed to issue and sell to the Bain Shareholder on the Closing Date immediately following the Closing, the number of ARYA Shares provided for in the Bain Subscription Agreement in exchange for the purchase price set forth therein (the aggregate purchase price under the Bain

Subscription Agreement, the “Bain PIPE Financing Amount”, and the equity financing under the Bain Subscription Agreement hereinafter referred to as, the “Bain PIPE Financing”), and (b) the Bain Shareholder may fund the Pre-Closing Series A Purchase Price Amount and which amount shall be treated as the satisfaction of a portion of the Bain PIPE Financing Amount, in each case, on the terms and subject to the conditions set forth in this Agreement and the Bain Subscription Agreement and therein;

WHEREAS, concurrently with the execution of this Agreement, each of Perceptive Life Sciences Master Fund Ltd, a Cayman Island exempted company (the “Perceptive PIPE Investor”), Pfizer Inc., a Delaware corporation (the “Pfizer Shareholder”), and the other investors set forth on Annex A (together with the Perceptive PIPE Investor and the Pfizer Shareholder, collectively, the “Other Investors”) with ARYA are entering into a subscription agreement, substantially in the form attached hereto as Exhibit B (collectively, the “Other Investor Subscription Agreements”), pursuant to which, among other things, each Other Investor has agreed to subscribe for and purchase on the Closing Date immediately following the Closing, and ARYA has agreed to issue and sell to each such Other Investor on the Closing Date immediately following the Closing, the number of ARYA Shares set forth in the applicable Other Investor Subscription Agreement in exchange for the purchase price set forth therein (the aggregate purchase price under all Other Investor Subscription Agreements, collectively, the “Other Investor PIPE Financing Amount”, and the equity financing under all Other Investor Subscription Agreements, collectively, hereinafter referred to as, the “Other Investor PIPE Financing”), on the terms and subject to the conditions set forth in the applicable Other Investor Subscription Agreement;

WHEREAS, concurrently with the execution of this Agreement, each of the Other Investors, who are the record and beneficial owners on the date hereof of Equity Securities of ARYA and marked with an asterisk on Annex A, are entering into shareholder support letter agreements (collectively, the “ARYA Shareholder Support Agreements”), with the Company pursuant to which, among other things, each such Other Investor has agreed to (a) vote in favor of this Agreement and the transactions contemplated hereby (including the Merger) and (b) not to redeem any of the Equity Securities of ARYA it owns, in each case, on the terms and subject to the conditions set forth in the applicable ARYA Shareholder Support Agreement;

WHEREAS, at the Closing, ARYA, the Perceptive Shareholders, the Bain Shareholder and the Pfizer Shareholder will enter into an investor rights agreement, substantially in the form attached hereto as Exhibit C (the “Investor Rights Agreement”), pursuant to which, among other things, (a) the Perceptive Shareholders, the Bain Shareholder and the Pfizer Shareholder (i) will agree not to effect any sale or distribution of any Equity Securities of ARYA held by any of them during the lock-up period described therein and (ii) will be granted certain registration rights with respect to their respective ARYA Shares and (b) the Bain Shareholder and the Pfizer Shareholder will each have certain rights to designate directors to the board of directors of ARYA (the “ARYA Board”), in each case, on the terms and subject to the conditions therein;

WHEREAS, the ARYA Board has (a) approved this Agreement, the Ancillary Documents to which ARYA is or will be a party and the transactions contemplated hereby and thereby (including the Domestication and the Merger) and (b) recommended, among other things, approval of this Agreement and the transactions contemplated by this Agreement (including the Domestication and the Merger) by the holders of ARYA Shares entitled to vote thereon;

WHEREAS, the board of directors of Cassidy Merger Sub has approved this Agreement, the Ancillary Documents to which Cassidy Merger Sub is or will be a party and the transactions contemplated hereby and thereby (including the Merger);

WHEREAS, ARYA, as the sole shareholder of Cassidy Merger Sub, will as promptly as reasonably practicable (and in any event within one Business Day) following the date of this Agreement, approve this Agreement, the Ancillary Documents to which Cassidy Merger Sub is or will be a party and the transactions contemplated hereby and thereby (including the Merger);

WHEREAS, the board of directors of the Company has (a) approved this Agreement, the Ancillary Documents to which the Company is or will be a party and the transactions contemplated hereby and thereby (including the Merger) and (b) recommended, among other things, the approval of this Agreement, the Ancillary Documents to which the Company is or will be a party and the transactions contemplated hereby and thereby (including the Merger) by the holders of Company Shares entitled to vote thereon;

WHEREAS, promptly after the execution of this Agreement, each Company Shareholder listed on Annex B attached hereto (collectively, the “Supporting Company Shareholders”) will duly execute and deliver to ARYA a transaction support agreement, substantially in the form attached hereto as Exhibit D (collectively, the “Transaction Support Agreements”), pursuant to which, among other things, each such Supporting Company Shareholder will agree to, among other things, (a) support and vote in favor of this Agreement, the Ancillary Documents to which the Company is or will be a party and the transactions contemplated hereby and thereby (including the Merger), and (b) take, or cause to be taken, any actions necessary or advisable to cause certain agreements to be terminated effective as of the Closing; and

WHEREAS, each of the Parties intends for U.S. federal income tax purposes that (a) this Agreement constitute a “plan of reorganization” within the meaning of Section 368 of the Code and Treasury Regulations promulgated thereunder, (b) the Domestication constitute an integrated transaction treated as a “reorganization” within the meaning of Section 368(a)(1)(F) of the Code and (c) the Merger, or, if applicable, the Alternative Transaction Structure, be treated as a transaction that qualifies as a “reorganization” within the meaning of Section 368 of the Code (clauses (a)-(c), the “Intended Tax Treatment”).

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, each intending to be legally bound, hereby agree as follows:

ARTICLE 1 CERTAIN DEFINITIONS

Section 1.1 Definitions. As used in this Agreement, the following terms have the respective meanings set forth below.

“Additional ARYA SEC Reports” has the meaning set forth in Section 4.7.

“Adjusted Equity Value” means (a) the Equity Value, plus (b) the Aggregate Vested Company Option Exercise Price.

“Adjusted Transaction Share Consideration” means an aggregate number of ARYA Shares equal to (a) the Adjusted Equity Value, divided by (b) the ARYA Share Value.

“Affiliate” means, with respect to any Person, any other Person who directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person. The term “control” means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise, and the terms “controlled” and “controlling” have meanings correlative thereto. Notwithstanding the foregoing or anything to the contrary herein, the Affiliates of the Sponsor shall be deemed to include Perceptive and its Affiliates.

“Aggregate Closing PIPE Proceeds” means the sum of: (a) the aggregate cash proceeds actually received by any ARYA Party in respect of the PIPE Financing (whether prior to or on the Closing Date); plus (b) the Pre-Closing Series A Purchase Price Amount.

“Aggregate Transaction Proceeds” means an amount equal to (a) the sum of (i) the aggregate cash proceeds available for release to any ARYA Party from the Trust Account in connection with the transactions contemplated hereby (after, for the avoidance of doubt, giving effect to all of the ARYA Shareholder Redemptions) and (ii) the Aggregate Closing PIPE Proceeds, minus (b) the Unpaid ARYA Expenses and the Unpaid ARYA Liabilities.

“Aggregate Vested Company Option Exercise Price” means the aggregate exercise price that would be paid to the Company in respect of all Vested Company Options if all Vested Company Options were exercised in full immediately prior to the Effective Time (without giving effect to any “net” exercise or similar concept).

“Agreement” has the meaning set forth in the introductory paragraph to this Agreement.

“Alternative Transaction Structure” has the meaning set forth in Section 5.5(a)(i).

“Allocation Schedule” has the meaning set forth in Section 2.3.

“Ancillary Documents” means the Investor Rights Agreement, Sponsor Letter Agreement, the ARYA Shareholder Support Agreements, the Subscription Agreements, the Transaction Support Agreements, the Letters of Transmittal and each other agreement, document, instrument and/or certificate contemplated by this Agreement executed or to be executed in connection with the transactions contemplated hereby.

“Anti-Corruption Laws” means, collectively, (a) the U.S. Foreign Corrupt Practices Act (FCPA), (b) the UK Bribery Act 2010 and (c) any other applicable anti-bribery or anti-corruption Laws related to combatting bribery, corruption and money laundering.

“ARYA” has the meaning set forth in the introductory paragraph to this Agreement.

“ARYA Acquisition Proposal” means (a) any transaction or series of related transactions under which ARYA or any of its controlled Affiliates, directly or indirectly, (i) acquires or otherwise purchases any other Person(s), (ii) engages in a business combination with any other Person(s) or (iii) acquires or otherwise purchases all or a material portion of the assets or businesses of any other Persons(s) (in the case of each of clause (i), (ii) and (iii), whether by merger, consolidation, recapitalization, purchase or issuance of equity securities, tender offer or otherwise) or (b) any equity, debt or similar investment in ARYA or any of its controlled Affiliates. Notwithstanding the foregoing or anything to the contrary herein, none of this Agreement, the Ancillary Documents or the transactions contemplated hereby or thereby shall constitute an ARYA Acquisition Proposal.

“ARYA Board” has the meaning set forth in the recitals to this Agreement.

“ARYA Board Recommendation” has the meaning set forth in Section 5.8.

“ARYA Bylaws” has the meaning set forth in Section 2.1(a).

“ARYA Certificate of Incorporation” has the meaning set forth in Section 2.1(a).

“ARYA Class A Shares” means ARYA’s Class A ordinary shares.

“ARYA Class B Shares” means ARYA’s Class B ordinary shares.

“ARYA D&O Persons” has the meaning set forth in Section 5.14(a).

“ARYA Disclosure Schedules” means the disclosure schedules to this Agreement delivered to the Company by ARYA on the date of this Agreement.

“ARYA Employee Stock Purchase Plan” has the meaning set forth in Section 5.18.

“ARYA Expenses” means, as of any determination time, the aggregate amount of fees, expense, commissions or other amounts incurred by or on behalf of, or otherwise payable by, whether or not due, an ARYA Party in connection with the negotiation, preparation or execution of this Agreement or any Ancillary Documents, the performance of its covenants or agreements in this Agreement or any Ancillary Document or the consummation of the transactions contemplated hereby or thereby, including (a) the fees and expenses of outside legal counsel, accountants, advisors, brokers, investment bankers, consultants, or other agents or service providers of any ARYA Party and (b) any other fees, expenses, commissions or other amounts that are expressly allocated to any ARYA Party pursuant to this Agreement or any Ancillary Document, including fifty percent (50%) of the HSR Act filing fee. Notwithstanding the foregoing or anything to the contrary herein, ARYA Expenses shall not include any Company Expenses.

“ARYA Financial Statements” means all of the financial statements of ARYA included in the ARYA SEC Reports.

“ARYA Fundamental Representations” means the representations and warranties set forth in Section 4.1 (Organization and Qualification), Section 4.2 (Authority), Section 4.4 (Brokers) and Section 4.6 (Capitalization of the ARYA Parties).

“ARYA Incentive Equity Plan” has the meaning set forth in Section 5.18.

“ARYA Liabilities” means, as of any determination time, the aggregate amount of Liabilities of the ARYA Parties that would be accrued on a balance sheet in accordance with GAAP, whether or not such Liabilities are due and payable as of such time. Notwithstanding the foregoing or anything to the contrary herein, ARYA Liabilities shall not include any ARYA Expenses.

“ARYA Material Adverse Effect” means any change, event, effect or occurrence that, individually or in the aggregate with any other change, event, effect or occurrence, has had or would reasonably be expected to have a material adverse effect on (a) the business, results of operations or financial condition of the ARYA Parties, taken as a whole, or (b) the ability of any ARYA Party to consummate the Merger in accordance with the terms of this Agreement; provided, however, that, in the case of clause (a), none of the following shall be taken into account in determining whether a ARYA Material Adverse Effect has occurred or is reasonably likely to occur: any adverse change, event, effect or occurrence arising after the date of this Agreement from or related to (i) general business or economic conditions in or affecting the United States, or changes therein, or the global economy generally, (ii) any national or international political or social conditions in the United States or any other country, including the engagement by the United States or any other country in hostilities, whether or not pursuant to the declaration of a national emergency or war, or the occurrence in any place of any military or terrorist attack, sabotage or cyberterrorism, (iii) changes in conditions of the financial, banking, capital or securities markets generally in the United States or any other country or region in the world, or changes therein, including changes in interest rates in the United States or any other country and changes in exchange rates for the currencies of any countries, (iv) changes in any applicable Laws, (v) any change, event, effect or occurrence that is generally applicable to the industries or markets in which any ARYA Party operates, (vi) the execution or public announcement of this Agreement or the pendency or consummation of the transactions contemplated by this Agreement, including the impact thereof on the relationships, contractual or otherwise, of any ARYA Party with investors, contractors, lenders, suppliers, vendors, partners, licensors, licensees, payors or other third parties related thereto (provided that the exception in this clause (vi) shall not apply to the representations and warranties set forth in Section 4.3(b) to the extent that its purpose is to address the consequences resulting from the public announcement or pendency or consummation of the transactions contemplated by this Agreement or the condition set forth in Section 6.3(a) to the extent it relates to such representations and warranties), (vii) any failure by any ARYA Party to meet, or changes to, any internal or published budgets, projections, forecasts, estimates or predictions (although the underlying facts and circumstances resulting in such failure may be taken into account to the extent not otherwise excluded from this definition pursuant to clauses (i) through (vi) or (viii)), or (viii) any hurricane, tornado, flood, earthquake, tsunami, natural disaster, mudslides, wild fires, epidemics, pandemics (including COVID-19) or quarantines, acts of God or other natural disasters or comparable events in the United States or any other country or region in the world, or any escalation of the foregoing; provided, however, that any change, event, effect or occurrence resulting from a matter described in any of the foregoing clauses (i) through (v) or (viii) may be taken into account in determining whether an ARYA Material Adverse Effect has occurred or is reasonably likely to occur to the extent such change, event, effect or occurrence has a disproportionate adverse effect on the ARYA Parties, taken as a whole, relative to other “SPACs” operating in the industries in which the ARYA Parties operate.

“ARYA Non-Party Affiliates” means, collectively, each ARYA Related Party and each of the former, current or future Affiliates, Representatives, successors or permitted assigns of any ARYA Related Party (other than, for the avoidance of doubt, any ARYA Party).

“ARYA Parties” means, collectively, ARYA and Cassidy Merger Sub.

“ARYA Related Parties” has the meaning set forth in Section 4.9.

“ARYA Related Party Transactions” has the meaning set forth in Section 4.9.

“ARYA SEC Reports” has the meaning set forth in Section 4.7.

“ARYA Share Value” means \$10.00.

“ARYA Shareholder Approval” means, collectively, the Required ARYA Shareholder Approval and the Other ARYA Shareholder Approval.

“ARYA Shareholder Redemption” means the right of the holders of ARYA Class A Shares to redeem all or a portion of their ARYA Class A Shares (in connection with the transactions contemplated by this Agreement or otherwise) as set forth in Governing Documents of ARYA.

“ARYA Shareholder Support Agreements” has the meaning set forth in the recitals to this Agreement.

“ARYA Shareholders Meeting” has the meaning set forth in Section 5.8.

“ARYA Shares” means (a) prior to the consummation of the Domestication, collectively, the ARYA Class A Shares and the ARYA Class B Shares and (b) from and after the consummation of the Domestication, shares of common stock, par value \$0.0001 per share, of ARYA. Any reference to the ARYA Shares in this Agreement or any Ancillary Document shall be deemed to refer to clause (a) and/or clause (b) of this definition, as the context so requires

“ARYA Warrants” means each warrant to purchase one ARYA Class A Share at an exercise price of \$11.50 per share, subject to adjustment in accordance with the Warrant Agreement (including, for the avoidance of doubt, each such warrant held by the Sponsor or any Other Class B Shareholder).

“Bain PIPE Financing” has the meaning set forth in the recitals to this Agreement.

“Bain PIPE Financing Amount” has the meaning set forth in the recitals to this Agreement.

“Bain Shareholder” has the meaning set forth in the recitals to this Agreement.

“Bain Subscription Agreement” has the meaning set forth in the recitals to this Agreement.

“Business” means the business of, directly or indirectly, researching, developing, testing (whether pre-clinical or clinical) or manufacturing, products, substances or therapies for the treatment of neurological disorders, including Parkinson’s disease, epilepsy and schizophrenia, or any activities, services or products incidental or attendant thereto.

“Business Combination Proposal” has the meaning set forth in Section 5.8.

“Business Day” means a day, other than a Saturday or Sunday, on which commercial banks in New York, New York and Boston, Massachusetts are open for the general transaction of business.

“Cassidy Merger Sub” has the meaning set forth in the introductory paragraph to this Agreement.

“Certificate of Merger” has the meaning set forth in Section 2.1(b)(ii).

“Certificates” has the meaning set forth in Section 2.1(b)(vii).

“Change of Control Payment” means (a) any success, change of control, retention, transaction bonus or other similar payment or amount to any Person as a result of or in connection with this Agreement or the transactions contemplated hereby or any other Change of Control Transaction (including any such payments or similar amounts that may become due and payable based upon the occurrence of one or more additional circumstances, matters or events) or (b) any payments made or required to be made pursuant to or in connection with or upon termination of, and any fees, expenses or other payments owing or that will become owing in respect of, any Company Related

Party Transaction during the period beginning on the date of the Latest Balance Sheet and ending on the Closing Date. Notwithstanding the foregoing or anything to the contrary herein, the ARYA Shares to be issued in respect of or that will become subject to, as applicable, the Rollover Options and Rollover RSU Awards at the Effective Time on the terms and subject to the conditions of this Agreement shall not constitute Change of Control Payments.

“Change of Control Transaction” means any transaction or series of related transactions (a) under which any Person(s), directly or indirectly, acquires or otherwise purchases (i) another Person or any of its Affiliates or (ii) all or a material portion of assets, businesses or equity securities of another Person, (b) that results, directly or indirectly, in the shareholders of a Person as of immediately prior to such transaction holding, in the aggregate, less than fifty percent (50%) of the voting shares of such Person (or any successor or parent company of such Person) immediately after the consummation thereof (in the case of each of clause (a) and (b), whether by merger, consolidation, tender offer, recapitalization, purchase or issuance of equity securities, tender offer or otherwise), or (c) under which any Persons(s) makes any equity or similar investment in another Person.

“Closing” has the meaning set forth in Section 2.2.

“Closing Company Unaudited Financial Statements” has the meaning set forth in Section 3.4(b).

“Closing Date” has the meaning set forth in Section 2.2.

“Closing Filing” has the meaning set forth in Section 5.4(b).

“Closing Press Release” has the meaning set forth in Section 5.4(b).

“COBRA” means Part 6 of Subtitle B of Title I of ERISA, Section 4980B of the Code and any similar state Law.

“Code” means the U.S. Internal Revenue Code of 1986.

“Company” has the meaning set forth in the introductory paragraph to this Agreement.

“Company Acquisition Proposal” means (a) any transaction or series of related transactions under which any Person(s), directly or indirectly, (i) acquires or otherwise purchases the Company or any of its controlled Affiliates or (ii) all or a material portion of assets or businesses of the Company or any of its controlled Affiliates (in the case of each of clause (i) and (ii), whether by merger, consolidation, recapitalization, purchase or issuance of equity securities, tender offer or otherwise), or (b) any equity or similar investment in the Company or any of its controlled Affiliates (other than any Pre-Closing Series A Financing or the issuance of the applicable class of shares of capital stock of the Company upon the exercise or conversion of any Company Options or Company RSU Awards outstanding on the date of this Agreement in accordance with the terms of the Company Equity Plan and the underlying grant, award or similar agreement). Notwithstanding the foregoing or anything to the contrary herein, none of this Agreement, the Ancillary Documents, the transactions contemplated hereby or thereby or any Specified Strategic Transaction shall constitute a Company Acquisition Proposal.

“Company Common Shares” means shares of common stock, par value \$0.00001 per share, of the Company, including the Company Series A Common Shares.

“Company D&O Persons” has the meaning set forth in Section 5.15(a).

“Company D&O Tail Policy” has the meaning set forth in Section 5.15(c).

“Company Designees” has the meaning set forth in Section 5.16(c).

“Company Disclosure Schedules” means the disclosure schedules to this Agreement delivered to ARYA by the Company on the date of this Agreement.

“Company Equity Award” means, as of any determination time, each Company Option, each Company RSU Award and each other award to any current or former director, manager, officer, employee, individual independent contractor or other service provider of any Group Company of rights of any kind to receive any Equity Security of any Group Company under any Company Equity Plan or otherwise that is outstanding.

“Company Equity Plan” means, collectively, (a) the Amended and Restated Cerevel Therapeutics, Inc. 2018 Equity Incentive Plan, (b) the Cerevel Therapeutics, Inc. 2020 Equity Incentive Plan and (c) each other plan that provides for the award to any current or former director, manager, officer, employee, individual independent contractor or other service provider of any Group Company of rights of any kind to receive Equity Securities of any Group Company or benefits measured in whole or in part by reference to Equity Securities of any Group Company.

“Company Expenses” means, as of any determination time, the aggregate amount of fees, expense, commissions or other amounts incurred by or on behalf of, or otherwise payable by, whether or not due, any Group Company in connection with the negotiation, preparation or execution of this Agreement or any Ancillary Documents, the performance of its covenants or agreements in this Agreement or any Ancillary Document or the consummation of the transactions contemplated hereby or thereby, including (a) the fees and expenses of outside legal counsel, accountants, advisors, brokers, investment bankers, consultants, or other agents or service providers of any Group Company, and (b) any other fees, expenses, commissions or other amounts that are expressly allocated to any Group Company pursuant to this Agreement or any Ancillary Document, including fifty percent (50%) of the HSR Act filing fee. Notwithstanding the foregoing or anything to the contrary herein, Company Expenses shall not include any ARYA Expenses.

“Company Fundamental Representations” means the representations and warranties set forth in Section 3.1(a) and Section 3.1(b) (Organization and Qualification), Section 3.2(a), Section 3.2(c) and Section 3.2(f) (Capitalization of the Group Companies), Section 3.3 (Authority), Section 3.8(a) (No Company Material Adverse Effect) and Section 3.17 (Brokers).

“Company IT Systems” means all computer systems, computer software and hardware, communication systems, servers, network equipment and related documentation, in each case, owned, licensed or leased by a Group Company.

“Company Licensed Intellectual Property” means Intellectual Property Rights owned by any Person (other than a Group Company) that is licensed to any Group Company.

“Company Material Adverse Effect” means any change, event, effect or occurrence that, individually or in the aggregate with any other change, event, effect or occurrence, has had or would reasonably be expected to have a material adverse effect on (a) the business, results of operations or financial condition of the Group Companies, taken as a whole, or (b) the ability of the Company to consummate the Merger in accordance with the terms of this Agreement; provided, however, that, in the case of clause (a), none of the following shall be taken into account in determining whether a Company Material Adverse Effect has occurred or is reasonably likely to occur: any adverse change, event, effect or occurrence arising after the date of this Agreement from or related to (i) general business or economic conditions in or affecting the United States, or changes therein, or the global economy generally, (ii) any national or international political or social conditions in the United States or any other country, including the engagement by the United States or any other country in hostilities, whether or not pursuant to the declaration of a national emergency or war, or the occurrence in any place of any military or terrorist attack, sabotage or cyberterrorism, (iii) changes in conditions of the financial, banking, capital or securities markets generally in the United States or any other country or region in the world, or changes therein, including changes in interest rates in the United States or any other country and changes in exchange rates for the currencies of any countries, (iv) changes in any applicable Laws, (v) any change, event, effect or occurrence that is generally applicable to the industries or markets in which any Group Company operates, (vi) the execution or public announcement of this Agreement or the pendency or consummation of the transactions contemplated by this Agreement, including the impact thereof on the relationships, contractual or otherwise, of any Group Company with employees, customers, investors, contractors, lenders, suppliers, vendors, partners, licensors, licensees, payors or other third parties related thereto (provided that the exception in this clause (vi) shall not apply to the representations and warranties set forth in Section 3.5(b) to the extent that its purpose is to address the consequences resulting from the public announcement or pendency or consummation of the transactions contemplated by this Agreement or the condition

set forth in Section 6.2(a) to the extent it relates to such representations and warranties), (vii) any failure by any Group Company to meet, or changes to, any internal or published budgets, projections, forecasts, estimates or predictions (although the underlying facts and circumstances resulting in such failure may be taken into account to the extent not otherwise excluded from this definition pursuant to clauses (i) through (vi) or (viii)), or (viii) any hurricane, tornado, flood, earthquake, tsunami, natural disaster, mudslides, wild fires, epidemics, pandemics (including COVID-19) or quarantines, acts of God or other natural disasters or comparable events in the United States or any other country or region in the world, or any escalation of the foregoing; provided, however, that any change, event, effect or occurrence resulting from a matter described in any of the foregoing clauses (i) through (v) or (viii) may be taken into account in determining whether a Company Material Adverse Effect has occurred or is reasonably likely to occur to the extent such change, event, effect or occurrence has a disproportionate adverse effect on the Group Companies, taken as a whole, relative to other participants operating in the industries or markets in which the Group Companies operate.

“Company Non-Party Affiliates” means, collectively, each Company Related Party and each former, current or future Affiliates, Representatives, successors or permitted assigns of any Company Related Party (other than, for the avoidance of doubt, the Company).

“Company Option” means, as of any determination time, each option to purchase Company Common Shares that is outstanding and unexercised, whether granted under a Company Equity Plan or otherwise.

“Company Owned Intellectual Property” means all Intellectual Property Rights that are owned, used or held for use by the Group Companies.

“Company Product” means each product candidate that is being researched, tested, developed or manufactured by or on behalf of the Group Companies.

“Company Registered Intellectual Property” means all Registered Intellectual Property owned or purported to be owned by, or filed in the name of any Group Company.

“Company Registration Rights Agreement” means the Registration Rights Agreement, dated as of September 24, 2018, by and among the Company and the Company Shareholders party thereto.

“Company Related Party” has the meaning set forth in Section 3.19.

“Company Related Party Transactions” has the meaning set forth in Section 3.19.

“Company RSU Award” means, as of any determination time, each restricted stock unit award that is outstanding with respect to Company Common Shares, whether granted under a Company Equity Plan or otherwise.

“Company Series A Common Shares” means shares of common stock, par value \$0.00001 per share, of the Company designated as “Series A Common Shares” pursuant to the Amended and Restated Certificate of Incorporation of the Company.

“Company Series A-1 Preferred Shares” means shares of preferred stock, par value \$0.00001 per share, of the Company designated as “Series A-1 Preferred Stock” pursuant to the Amended and Restated Certificate of Incorporation of the Company.

“Company Series A-2 Preferred Shares” means shares of preferred stock, par value \$0.00001 per share, of the Company designated as “Series A-2 Preferred Stock” pursuant to the Amended and Restated Certificate of Incorporation of the Company.

“Company Shareholder Written Consent” has the meaning set forth in Section 5.13(b).

“Company Shareholder Written Consent Deadline” has the meaning set forth in Section 5.13(b).

“Company Shareholders” means, collectively, the holders of Company Shares as of any determination time prior to the Effective Time.

“Company Shareholders Agreement” means the Stockholders’ Agreement, dated as of September 24, 2018, by and among the Company and the Company Shareholders party thereto.

“Company Shares” means, collectively, the Company Series A-1 Preferred Shares, the Company Series A-2 Preferred Shares and the Company Common Shares.

“Confidentiality Agreements” means, collectively, (a) that certain Mutual Confidential Disclosure Agreement, dated as of June 29, 2020, by and between the Company and ARYA and (b) that certain Mutual Confidentiality Agreement, dated as of June 29, 2020, by and between the Company and Perceptive.

“Consent” means any notice, authorization, qualification, registration, filing, notification, waiver, order, consent or approval to be obtained from, filed with or delivered to, a Governmental Entity or other Person.

“Continental” means Continental Stock Transfer & Trust Company.

“Contract” or “Contracts” means any written agreement, contract, license, lease, obligation, undertaking or other commitment or arrangement that is legally binding upon a Person or any of his, her or its properties or assets.

“Copyrights” has the meaning set forth in the definition of Intellectual Property Rights.

“COVID-19” means SARS-CoV-2 or COVID-19, and any evolutions thereof or related or associated epidemics, pandemic or disease outbreaks.

“Creator” has the meaning set forth in Section 3.13(d).

“DGCL” has the meaning set forth in the recitals to this Agreement.

“Domestication” has the meaning set forth in the recitals to this Agreement.

“Domestication Proposal” has the meaning set forth in Section 5.8.

“Effective Time” has the meaning set forth in Section 2.1(b)(ii).

“Employee Benefit Plan” means each “employee benefit plan” (as such term is defined in Section 3(3) of ERISA, whether or not subject to ERISA) and each other benefit or compensatory plan, program, policy or Contract that any Group Company maintains, sponsors or contributes to, or under or with respect to which any Group Company has any Liability, other than any plan sponsored or maintained by a Governmental Entity.

“Environmental Laws” means all Laws and Orders concerning pollution, protection of the environment, or human health or safety.

“Equity Incentive Plan Proposal” has the meaning set forth in Section 5.8.

“Equity Securities” means any share, share capital, capital stock, partnership, membership, joint venture or similar interest in any Person (including any stock appreciation, phantom stock, profit participation or similar rights), and any option, warrant, right or security (including debt securities) convertible, exchangeable or exercisable therefor.

“Equity Value” means \$780,000,000.

“ERISA” means the Employee Retirement Income Security Act of 1974.

“Exchange Act” means the Securities Exchange Act of 1934.

“Exchange Agent” has the meaning set forth in Section 2.5(a).

“Exchange Fund” has the meaning set forth in Section 2.5(c).

“FDA” means the U.S. Food and Drug Administration, or any successor agency thereto.

“Federal Securities Laws” means the Exchange Act, the Securities Act and the other U.S. federal securities laws and the rules and regulations of the SEC promulgated thereunder or otherwise.

“Financial Statements” has the meaning set forth in Section 3.4(a).

“Foreign Benefit Plan” means each Employee Benefit Plan maintained by any of the Group Companies for its current or former employees, officers, directors or other individual service providers located outside of the United States.

“Fraud” means an act or omission by a Party, and requires: (a) a false or incorrect representation or warranty expressly set forth in this Agreement, (b) with actual knowledge (as opposed to constructive, imputed or implied knowledge) by the Party making such representation or warranty that such representation or warranty expressly set forth in this Agreement is false or incorrect, (c) an intention to deceive another Party, to induce him, her or it to enter into this Agreement, (d) another Party, in justifiable or reasonable reliance upon such false or incorrect representation or warranty expressly set forth in this Agreement, causing such Party to enter into this Agreement, and (e) another Party to suffer damage by reason of such reliance. For the avoidance of doubt, “Fraud” does not include any claim for equitable fraud, promissory fraud, unfair dealings fraud or any torts (including a claim for fraud or alleged fraud) based on negligence or recklessness.

“GAAP” means United States generally accepted accounting principles.

“Governing Document Proposals” has the meaning set forth in Section 5.8.

“Governing Documents” means the legal document(s) by which any Person (other than an individual) establishes its legal existence or which govern its internal affairs. For example, the “Governing Documents” of a U.S. corporation are its certificate or articles of incorporation and by-laws, the “Governing Documents” of a U.S. limited partnership are its limited partnership agreement and certificate of limited partnership, the “Governing Documents” of a U.S. limited liability company are its operating or limited liability company agreement and certificate of formation and the “Governing Documents” of a Cayman Islands exempted company are its memorandum and articles of association.

“Governmental Entity” means any United States or non-United States (a) federal, state, local, municipal or other government, (b) governmental or quasi-governmental entity of any nature (including any governmental agency, branch, department, official, or entity and any court or other tribunal) or (c) body exercising or entitled to exercise any administrative, executive, judicial, legislative, police, regulatory, or taxing authority or power of any nature, including any arbitral tribunal (public or private).

“Group Company” and “Group Companies” means, collectively, the Company and its Subsidiaries.

“Hazardous Substance” means any hazardous, toxic, explosive or radioactive material, substance, waste or other pollutant that is regulated by, or may give rise to Liability pursuant to, any Environmental Law, including any petroleum products or byproducts, asbestos, lead, polychlorinated biphenyls, per- and poly-fluoroalkyl substances, or radon.

“HSR Act” means the Hart-Scott-Rodino Antitrust Improvements Act of 1976 and the rules and regulations promulgated thereunder.

“Indebtedness” means, as of any time, without duplication, with respect to any Person, the outstanding principal amount of, accrued and unpaid interest on, fees and expenses arising under or in respect of (a) indebtedness for

borrowed money, (b) other obligations evidenced by any note, bond, debenture or other debt security, (c) obligations for the deferred purchase price of property or assets, including “earn-outs” and “seller notes” (but excluding any trade payables arising in the ordinary course of business), (d) reimbursement and other obligations with respect to letters of credit, bank guarantees, bankers’ acceptances or other similar instruments, in each case, solely to the extent drawn, (e) leases required to be capitalized under GAAP, (f) derivative, hedging, swap, foreign exchange or similar arrangements, including swaps, caps, collars, hedges or similar arrangements, and (g) any of the obligations of any other Person of the type referred to in clauses (a) through (f) above directly or indirectly guaranteed by such Person or secured by any assets of such Person, whether or not such Indebtedness has been assumed by such Person.

“Independent Designee” has the meaning set forth in Section 5.16(b).

“Initial Company Designee” has the meaning set forth in Section 5.16(c).

“Intellectual Property Rights” means all intellectual property rights and related priority rights protected, created or arising under the Laws of the United States or any other jurisdiction or under any international convention, including all (a) patents and patent applications, industrial designs and design patent rights, including any continuations, divisionals, continuations-in-part and provisional applications and statutory invention registrations, and any patents issuing on any of the foregoing and any reissues, reexaminations, substitutes, supplementary protection certificates, extensions of any of the foregoing (collectively, “Patents”); (b) trademarks, service marks, trade names, service names, brand names, trade dress rights, logos, Internet domain names, corporate names and other source or business identifiers, together with the goodwill associated with any of the foregoing, and all applications, registrations, extensions and renewals of any of the foregoing (collectively, “Marks”); (c) copyrights and works of authorship, database and design rights, mask work rights and moral rights, whether or not registered or published, and all registrations, applications, renewals, extensions and reversions of any of any of the foregoing (collectively, “Copyrights”); (d) trade secrets, know-how and confidential and proprietary information, including invention disclosures, inventions and formulae, whether patentable or not; (e) rights in or to Software or other technology; and (f) any other intellectual or proprietary rights protectable, arising under or associated with any of the foregoing, including those protected by any Law anywhere in the world.

“Intended Tax Treatment” has the meaning set forth in the recitals to this Agreement.

“Investment Company Act” means the Investment Company Act of 1940.

“Investor Rights Agreement” has the meaning set forth in the recitals to this Agreement.

“Investors” has the meaning set forth in the recitals to this Agreement.

“IPO” has the meaning set forth in Section 8.18.

“JOBS Act” means the Jumpstart Our Business Startups Act of 2012.

“Latest Balance Sheet” has the meaning set forth in Section 3.4(a).

“Law” means any federal, state, local, foreign, national or supranational statute, law (including common law), act, statute, ordinance, treaty, rule, code, regulation or other binding directive or guidance issued, promulgated or enforced by a Governmental Entity having jurisdiction over a given matter.

“Leased Real Property” has the meaning set forth in Section 3.18(b).

“Letter of Transmittal” means the letter of transmittal, substantially in the form attached as Exhibit E hereto and with such modifications, amendments or supplements as may be requested by the Exchange Agent and mutually agreed to by each of ARYA and the Company (in either case, such agreement not to be unreasonably withheld, conditioned or delayed).

“Liability” or “liability” means any and all debts, liabilities and obligations, whether accrued or fixed, absolute or contingent, known or unknown, matured or unmatured or determined or determinable, including those arising under any Law (including any Environmental Law), Proceeding or Order and those arising under any Contract, agreement, arrangement, commitment or undertaking.

“Lien” means any mortgage, pledge, security interest, encumbrance, lien, license or sub-license, charge, or other similar encumbrance or interest (including, in the case of any Equity Securities, any voting, transfer or similar restrictions).

“Marks” has the meaning set forth in the definition of Intellectual Property Rights.

“Material Contracts” has the meaning set forth in Section 3.7(a).

“Material Permits” has the meaning set forth in Section 3.6.

“Merger” has the meaning set forth in the recitals to this Agreement.

“Multiemployer Plan” has the meaning set forth in Section (3)37 or Section 4001(a)(3) of ERISA.

“Nasdaq” means the Nasdaq Capital Market.

“Nasdaq Proposal” has the meaning set forth in Section 5.8.

“Newco” has the meaning set forth in Section 5.5(a)(i).

“Non-Party Affiliate” has the meaning set forth in Section 8.13.

“Off-the-Shelf Software” means any Software that is made generally and widely available to the public on a commercial basis and is licensed to any of the Group Companies on a non-exclusive basis under standard terms and conditions for a one-time license fee of less than \$100,000 per license or an ongoing licensee fee of less than \$50,000 per year.

“Officers” has the meaning set forth in Section 5.16(a).

“Order” means any outstanding writ, order, judgment, injunction, decision, determination, award, ruling, subpoena, verdict or decree entered, issued or rendered by any Governmental Entity.

“Other ARYA Shareholder Approval” means the approval of each Other Transaction Proposal by the affirmative vote of the holders of the requisite number of ARYA Shares entitled to vote thereon, whether in person or by proxy at the ARYA Shareholders Meeting (or any adjournment thereof), in accordance with the Governing Documents of ARYA and applicable Law.

“Other Investors” has the meaning set forth in the recitals to this Agreement.

“Other Investor PIPE Financing” has the meaning set forth in the recitals to this Agreement.

“Other Investor PIPE Financing Amount” has the meaning set forth in the recitals to this Agreement.

“Other Investor Subscription Agreement” has the meaning set forth in the recitals to this Agreement.

“Other Class B Shareholders” means, collectively, Jake Bauer, Chad Robins and Todd Wider.

“Other Company Designee” has the meaning set forth in Section 5.16(c).

“Other Transaction Proposal” means each Transaction Proposal, other than the Required Transaction Proposals.

“Parties” has the meaning set forth in the introductory paragraph to this Agreement.

“Patents” has the meaning set forth in the definition of Intellectual Property Rights.

“PCAOB” means the Public Company Accounting Oversight Board.

“Perceptive” means Perceptive Advisors, LLC, a Delaware limited liability company.

“Perceptive PIPE Investor” has the meaning set forth in the recitals to this Agreement.

“Perceptive Shareholders” means, collectively, the Sponsor and the Perceptive PIPE Investor.

“Permits” means any approvals, authorizations, clearances, licenses, registrations, permits or certificates of a Governmental Entity.

“Permitted Liens” means (a) mechanic’s, materialmen’s, carriers’, repairers’ and other similar statutory Liens arising or incurred in the ordinary course of business for amounts that are not yet delinquent or are being contested in good faith by appropriate proceedings and for which sufficient reserves have been established in accordance with GAAP, (b) Liens for Taxes, assessments or other governmental charges not yet due and payable as of the Closing Date or which are being contested in good faith by appropriate proceedings and for which sufficient reserves have been established in accordance with GAAP, (c) encumbrances and restrictions on real property (including easements, covenants, conditions, rights of way and similar restrictions) that do not prohibit or materially interfere with any of the Group Companies’ use or occupancy of such real property, (d) zoning, building codes and other land use Laws regulating the use or occupancy of real property or the activities conducted thereon which are imposed by any Governmental Entity having jurisdiction over such real property and which are not violated by the use or occupancy of such real property or the operation of the businesses of the Group Company and do not prohibit or materially interfere with any of the Group Companies’ use or occupancy of such real property, (e) cash deposits or cash pledges to secure the payment of workers’ compensation, unemployment insurance, social security benefits or obligations arising under similar Laws or to secure the performance of public or statutory obligations, surety or appeal bonds, and other obligations of a like nature, in each case in the ordinary course of business and which are not yet due and payable, (f) grants by any Group Company of non-exclusive rights in non-material Intellectual Property in the ordinary course of business consistent with past practice and (g) other Liens that do not materially and adversely affect the value, use or operation of the asset subject thereto.

“Person” means an individual, partnership, corporation, limited liability company, joint stock company, unincorporated organization or association, trust, joint venture or other similar entity, whether or not a legal entity.

“Personal Data” means any data or information relating to an identified natural person that is regulated by the Privacy Laws.

“Pfizer Shareholder” has the meaning set forth in the recitals to this Agreement.

“PIPE Financing” means, collectively, the Bain PIPE Financing and the Other Investor PIPE Financing.

“PIPE Financing Amount” means, collectively, the Bain PIPE Financing Amount and the Other Investor PIPE Financing Amount.

“Pre-Closing ARYA Holders” means the holders of ARYA Shares at any time prior to the Effective Time.

“Pre-Closing Series A Financing” has the meaning set forth in the Bain Subscription Agreement.

“Pre-Closing Series A Purchase Agreement” means that certain Stock Purchase Agreement, dated as of August 13, 2018, by and among the Company, the Bain Shareholder and the Pfizer Shareholder.

“Pre-Closing Series A Purchase Price Amount” has the meaning set forth in the Bain Subscription Agreement.

“Pre-Closing Series A Share Consideration” means an aggregate number of ARYA Shares equal to (a) the Pre-Closing Series A Purchase Price Amount, divided by (b) the ARYA Share Value.

“Pre-Closing Series A Shares” has the meaning set forth in the Bain Subscription Agreement.

“Privacy and Data Security Policies” has the meaning set forth in Section 3.20(a).

“Privacy Laws” means Laws relating to the Processing or protection of Personal Data that apply to the Group Companies.

“Proceeding” means any lawsuit, litigation, action, audit, examination, claim, complaint, charge, proceeding, suit or arbitration (in each case, whether civil, criminal or administrative and whether public or private) pending by or before or otherwise involving any Governmental Entity.

“Process” (or “Processing” or “Processes”) means the collection, use, storage, processing, recording, distribution, transfer, import, export, protection (including security measures), disposal or disclosure or other activity regarding data (whether electronically or in any other form or medium).

“Prospectus” has the meaning set forth in Section 8.18.

“Public Health Laws” means all applicable Laws relating to the development, pre-clinical testing, clinical testing, manufacture, production, analysis, distribution, importation, exportation, use, handling, quality, sale or promotion of any drug (including any ingredient or component of the foregoing products) subject to regulation under the Federal Food, Drug, and Cosmetic Act (21 U.S.C. § 301 *et seq.*) or similar federal, state or foreign, pharmaceutical Laws.

“Public Shareholders” has the meaning set forth in Section 8.18.

“Public Software” means any Software that contains, includes, incorporates, or has instantiated therein, or is derived in any manner (in whole or in part) from, any Software that is distributed as free software, open source software (*e.g.*, Linux) or similar licensing or distribution models, including under any terms or conditions that impose any requirement that any Software using, linked with, incorporating, distributed with or derived from such Public Software (a) be made available or distributed in source code form; (b) be licensed for purposes of making derivative works; or (c) be redistributable at no, or a nominal, charge.

“Real Property Leases” means all leases, sub-leases, licenses or other agreements, in each case, pursuant to which any Group Company leases or sub-leases any real property.

“Registered Intellectual Property” means all issued Patents, pending Patent applications, registered Marks, pending applications for registration of Marks, registered Copyrights, pending applications for registration of Copyrights and Internet domain name registrations.

“Registration Statement / Proxy Statement” means a registration statement on Form S-4 relating to the transactions contemplated by this Agreement and the Ancillary Documents and containing a prospectus and proxy statement of ARYA.

“Regulatory Permits” means all Permits granted by FDA or any comparable Governmental Entity to any Group Company, including investigational new drug applications, new drug applications, abbreviated new drug applications manufacturing approvals and authorizations, EC certificates, EC declarations of conformity, clinical trial authorizations and ethical reviews or their national or foreign equivalents.

“Representatives” means with respect to any Person, such Person’s Affiliates and its and such Affiliates’ respective directors, managers, officers, employees, accountants, consultants, advisors, attorneys, agents and other representatives.

“Required ARYA Shareholder Approval” means the approval of each Required Transaction Proposal by the affirmative vote of the holders of the requisite number of ARYA Shares entitled to vote thereon, whether in person or by proxy at the ARYA Shareholders Meeting (or any adjournment thereof), in accordance with the Governing Documents of ARYA and applicable Law.

“Required Governing Document Proposals” means the Governing Document Proposals solely to the extent related to the amendments to the Governing Documents of ARYA set forth on Annex C attached hereto.

“Required Transaction Proposals” means, collectively, the Business Combination Proposal, the Domestication Proposal, the Nasdaq Proposal, the Equity Incentive Plan Proposal and the Required Governing Document Proposals.

“Rollover Option” has the meaning set forth in Section 2.4(a).

“Rollover RSU Award” has the meaning set forth in Section 2.4(c).

“Sanctions and Export Control Laws” means any applicable Law related to (a) import and export controls, including the U.S. Export Administration Regulations, (b) economic sanctions, including those administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. Department of State, the European Union, any European Union Member State, the United Nations, and Her Majesty’s Treasury of the United Kingdom or (c) anti-boycott measures.

“Sarbanes-Oxley Act” means the Sarbanes-Oxley Act of 2002.

“Schedules” means, collectively, the Company Disclosure Schedules and the ARYA Disclosure Schedules.

“SEC” means the U.S. Securities and Exchange Commission.

“Securities Act” means the U.S. Securities Act of 1933.

“Securities Laws” means Federal Securities Laws and other applicable foreign and domestic securities or similar Laws.

“Signing Filing” has the meaning set forth in Section 5.4(b).

“Signing Press Release” has the meaning set forth in Section 5.4(b).

“Software” shall mean any and all (a) computer programs, including any and all software implementations of algorithms, models and methodologies, whether in source code or object code; (b) databases and compilations, including any and all data and collections of data, whether machine readable or otherwise; (c) descriptions, flowcharts and other work product used to design, plan, organize and develop any of the foregoing, screens, user interfaces, report formats, firmware, development tools, templates, menus, buttons and icons; and (d) all documentation, including user manuals and other training documentation, related to any of the foregoing.

“Specified Strategic Transaction” means any royalty based transaction, drug development partnership or similar transaction that does not contemplate the issuance of any Equity Securities of the Company or any of its Affiliates (including, after the Effective Time, ARYA or any of its Affiliates).

“Sponsor” has the meaning set forth in the recitals to this Agreement.

“Sponsor Letter Agreement” has the meaning set forth in the recitals to this Agreement.

“Subscription Agreements” means, collectively, the Bain Subscription Agreement and the Other Investor Subscription Agreements.

“Subsidiary” means, with respect to any Person, any corporation, limited liability company, partnership or other legal entity of which (a) if a corporation, a majority of the total voting power of shares of stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of such Person or a combination thereof, or (b) if a limited liability company, partnership, association or other business entity (other than a corporation), a majority of the partnership or other similar ownership interests thereof is at the time owned or controlled, directly or indirectly, by such Person or one or more Subsidiaries of such Person or a combination thereof and for this purpose, a Person or Persons own a majority ownership interest in such a business entity (other than a corporation) if such Person or Persons shall be allocated a majority of such business entity’s gains or losses or shall be a, or control any, managing director or general partner of such business entity (other than a corporation). The term “Subsidiary” shall include all Subsidiaries of such Subsidiary.

“Supporting Company Shareholders” has the meaning set forth in the recitals to this Agreement.

“Surviving Company” has the meaning set forth in Section 2.1(b)(i).

“Surviving Company Share” has the meaning set forth in Section 2.1(b)(vi).

“Tax” means any federal, state, local or non-United States income, gross receipts, franchise, estimated, alternative minimum, sales, use, transfer, value added, excise, stamp, customs, duties, ad valorem, real property, personal property (tangible and intangible), capital stock, social security, unemployment, payroll, wage, employment, severance, occupation, registration, environmental, communication, mortgage, profits, license, lease, service, goods and services, withholding, premium, unclaimed property, escheat, turnover, windfall profits or other taxes of any kind whatever, whether computed on a separate or combined, unitary or consolidated basis or in any other manner, together with any interest, deficiencies, penalties, additions to tax, or additional amounts imposed by any Governmental Entity with respect thereto, whether disputed or not, and including any secondary Liability for any of the aforementioned.

“Tax Authority” means any Governmental Entity responsible for the collection or administration of Taxes or Tax Returns.

“Tax Return” means returns, information returns, statements, declarations, claims for refund, schedules, attachments and reports relating to Taxes required to be filed with any Governmental Entity.

“Termination Date” has the meaning set forth in Section 7.1(d).

“Transaction Litigation” has the meaning set forth in Section 5.2(d).

“Transaction Proposals” has the meaning set forth in Section 5.8.

“Transaction Support Agreement Deadline” has the meaning set forth in Section 5.13(a).

“Transaction Support Agreements” has the meaning set forth in the recitals to this Agreement.

“Trust Account” has the meaning set forth in Section 8.18.

“Trust Account Released Claims” has the meaning set forth in Section 8.18.

“Trust Agreement” has the meaning set forth in Section 4.8.

“Trustee” has the meaning set forth in Section 4.8.

“Unpaid ARYA Expenses” means the ARYA Expenses that are unpaid as of immediately prior to the Closing.

“Unpaid ARYA Liabilities” means the ARYA Liabilities as of immediately prior to the Closing.

“Unpaid Company Expenses” means the Company Expenses that are unpaid as of immediately prior to the Closing.

“Unvested Company Equity Awards” means, collectively, the Unvested Company Options and the Unvested Company RSU Awards.

“Unvested Company Option” means each Company Option outstanding as of immediately prior to the Effective Time that is not a Vested Company Option.

“Unvested Company RSU Award” means each Company RSU Award outstanding as of immediately prior to the Effective Time that is not a Vested Company RSU Award.

“Vested Company Equity Awards” means, collectively, the Vested Company Options and the Vested Company RSU Awards.

“Vested Company Option” means each Company Option outstanding as of immediately prior to the Effective Time that is vested as of immediately prior to the Effective Time or will vest solely as a result of the consummation of the Merger.

“Vested Company RSU Award” means each Company RSU Award outstanding as of immediately prior to the Effective Time that is vested as of immediately prior to the Effective Time or will vest solely as a result of the consummation of the Merger.

“WARN” means the Worker Adjustment Retraining and Notification Act of 1988, as well as analogous applicable foreign, state or local Laws.

“Warrant Agreement” means the Warrant Agreement, dated as of June 9, 2020, by and between ARYA and the Trustee.

“Willful Breach” means a material breach that is a consequence of an act undertaken or a failure to act by the breaching party with the knowledge that the taking of such act or such failure to act would, or would reasonably be expected to, constitute or result in a breach of this Agreement.

ARTICLE 2 MERGER

Section 2.1 Closing Transactions. On the terms and subject to the conditions set forth in this Agreement, the following transactions shall occur in the order set forth in this Section 2.1:

(a) Domestication. On the Closing Date prior to the Effective Time, ARYA shall cause the Domestication to occur in accordance with Section 388 of the DGCL and Part XII of the Cayman Islands Companies Law (2020 Revision). In connection with the Domestication, (i) each ARYA Class A Share and each ARYA Class B Share that is issued and outstanding immediately prior to the Domestication shall become one share of common stock, par value \$0.0001 per share, of ARYA, (ii) each ARYA Warrant that is outstanding immediately prior to the Domestication shall, from and after the Domestication, represent the right to purchase one share of common stock, par value \$0.0001 per share, of ARYA at an exercise price of \$11.50 per share on the terms and subject to the conditions set forth in the Warrant Agreement, (iii) the Governing Documents of ARYA shall become the certificate of incorporation, substantially in the form attached hereto as Exhibit F (the “ARYA Certificate of Incorporation”), and the bylaws, substantially in the form attached hereto as Exhibit G (the “ARYA Bylaws”) and (iv) ARYA’s name shall be changed to “Cerevel Therapeutics Holdings, Inc.”; provided, however, that, (A) in the case of clause (iii), each of the Parties acknowledges and agrees that each of the ARYA Certificate of Incorporation and the ARYA Bylaws shall be appropriately adjusted to give effect to any amendments to the Governing Documents of ARYA contemplated by the ARYA Certificate of Incorporation and the ARYA Bylaws that are not adopted and approved by the Pre-Closing ARYA Holders at the ARYA Shareholders Meeting (other than, for the avoidance of doubt, the amendments to the Governing Documents of ARYA that are contemplated by the Required Governing Document Proposals) and (B) in connection with clause (i) and (ii), each issued and outstanding unit of ARYA that has not

been previously separated into the underlying ARYA Class A Shares and underlying ARYA Warrants prior to the Domestication shall, for the avoidance of doubt, be cancelled and will entitle the holder thereof to one share of common stock, par value \$0.0001 per share, of ARYA, and one-third of one warrant representing the right to purchase one share of common stock, par value \$0.0001 per share, of ARYA at an exercise price of \$11.50 per share on the terms and subject to the conditions set forth in the Warrant Agreement.

(b) The Merger.

(i) On the terms and subject to the conditions set forth in this Agreement and in accordance with the DGCL, on the Closing Date promptly following the consummation of the Domestication, Cassidy Merger Sub shall merge with and into the Company (the “Merger”) at the Effective Time. Following the Effective Time, the separate existence of Cassidy Merger Sub shall cease and the Company shall continue as the surviving company of the Merger (the “Surviving Company”).

(ii) At the Closing, the parties hereto shall cause a certificate of merger, in a form reasonably satisfactory to the Company and ARYA (the “Certificate of Merger”), to be executed and filed with the Secretary of State of the State of Delaware. The Merger shall become effective on the date and time at which the Certificate of Merger is accepted for filing by the Secretary of State of the State of Delaware or at such later date and/or time as is agreed by ARYA and the Company and specified in the Certificate of Merger (the time the Merger becomes effective being referred to herein as the “Effective Time”).

(iii) The Merger shall have the effects set forth in Section 251 of the DGCL. Without limiting the generality of the foregoing, and subject thereto, at the Effective Time, all of the assets, properties, rights, privileges, powers and franchises of the Company and Cassidy Merger Sub shall vest in the Surviving Company and all debts, liabilities, obligations, restrictions, disabilities and duties of each of the Company and Cassidy Merger Sub shall become the debts, liabilities, obligations and duties of the Surviving Company, in each case, in accordance with the DGCL.

(iv) At the Effective Time, the Governing Documents of Cassidy Merger Sub shall be the Governing Documents of the Surviving Company, in each case, until thereafter changed or amended as provided therein or by applicable Law.

(v) At the Effective Time, the directors and officers of the Company immediately prior to the Effective Time shall be the initial directors and officers of the Surviving Company, each to hold office in accordance with the Governing Documents of the Surviving Company until such director’s or officer’s successor is duly elected or appointed and qualified, or until the earlier of their death, resignation or removal.

(vi) At the Effective Time, by virtue of the Merger and without any action on the part of any Party or any other Person, each share of capital stock of Cassidy Merger Sub issued and outstanding immediately prior to the Effective Time shall be automatically cancelled and extinguished and converted into one share of common stock, par value \$0.0001, of the Surviving Company (each such share, a “Surviving Company Share”).

(vii) At the Effective Time, by virtue of the Merger and without any action on the part of any Party or any other Person, each Company Share (other than the Company Shares cancelled and extinguished pursuant to Section 2.1(b)(viii) and the Pre-Closing Series A Shares cancelled, extinguished and converted pursuant to Section 2.1(b)(ix)) issued and outstanding as of immediately prior to the Effective Time shall be automatically canceled and extinguished and converted into the right to receive a number of ARYA Shares set forth on the Allocation Schedule. From and after the Effective Time, each Company Shareholder’s certificates (the “Certificates”), evidencing ownership of the Company Shares and the Company Shares held in book-entry form issued and outstanding immediately prior to the Effective Time shall each cease to have any rights with respect to such Company Shares except as otherwise expressly provided for herein or under applicable Law.

(viii) At the Effective Time, by virtue of the Merger and without any action on the part of any Party or any other Person, each Company Share held immediately prior to the Effective Time by the Company as treasury stock shall be automatically canceled and extinguished, and no consideration shall be paid with respect thereto.

(ix) At the Effective Time, by virtue of the Merger and without any action on the part of any Party or any other Person, all of the Pre-Closing Series A Shares issued and outstanding as of immediately prior to the Effective Time shall be automatically canceled and extinguished and collectively converted into the right to receive the Pre-Closing Series A Share Consideration.

Section 2.2 Closing of the Transactions Contemplated by this Agreement. The closing of the transactions contemplated by this Agreement (the “Closing”) shall take place electronically by exchange of the closing

deliverables by the means provided in Section 8.11 as promptly as reasonably practicable, but in no event later than the third (3rd) Business Day, following the satisfaction (or, to the extent permitted by applicable Law, waiver) of the conditions set forth in Article 6 (other than those conditions that by their nature are to be satisfied at the Closing, but subject to satisfaction or waiver of such conditions) (the “Closing Date”) or at such other place, date and/or time as ARYA and the Company may agree in writing.

Section 2.3 Allocation Schedule. No later than three (3) Business Days prior to the Closing Date, the Company shall deliver to ARYA an allocation schedule (the “Allocation Schedule”) setting forth (a) the number of Company Shares held by each Company Shareholder, the number of Company Shares subject to each Company Equity Award held by each holder thereof, as well as whether each such Company Equity Award will be a Vested Company Equity Award or an Unvested Company Equity Award as of immediately prior to the Effective Time, and, in the case of the Company Options, the exercise price thereof, (b) the number of ARYA Shares that will be subject to each Rollover Option and each Rollover RSU Award, the portion of the Adjusted Transaction Share Consideration to be allocated to each Vested Company RSU Award, and, in the case of each Rollover Option, the exercise price thereof at the Effective Time, as well as the exchange ratio on which such calculations are based (which shall, for the avoidance of doubt, be the same exchange ratio for each calculation pursuant to this clause (b)), (c) the portion of the Adjusted Transaction Share Consideration allocated to each Company Shareholder, and (d) a certification, duly executed by an authorized officer of the Company, that (i) the information delivered pursuant to clauses (a), (b) and (c) is, and will be as of immediately prior to the Effective Time, true and correct in all respects and in accordance with the last sentence of this Section 2.3 and (ii) the Company has performed, or otherwise complied with, as applicable, its covenants and agreements set forth in Section 2.4(e) and Section 5.13(d). The Company will review any comments to the Allocation Schedule provided by ARYA or any of its Representatives and consider in good faith any reasonable comments proposed by ARYA or any of its Representatives. Notwithstanding the foregoing or anything to the contrary herein, (A) the aggregate number of ARYA Shares that each Company Shareholder will have a right to receive pursuant to Section 2.1(b)(vii) will be rounded down to the nearest whole share, (B) in no event shall the aggregate number of ARYA Shares set forth on the Allocation Schedule that are allocated in respect of Company Shares and Vested Company Equity Awards exceed the Adjusted Transaction Share Consideration, (C) in no event shall the Allocation Schedule (or the calculations or determinations therein) breach, as applicable, any applicable Law, the Governing Documents of the Company, the Company Shareholders Agreement, the Company Equity Plan or any other Contract to which the Company is a party or bound (taking into account, for the avoidance of doubt, any actions taken by the Company pursuant to Section 2.4(e) and Section 5.13(d)) and (D) in no event shall the number of ARYA Shares that will be subject to the Rollover Options corresponding to the Unvested Company Options and the Rollover RSU Awards be in excess of a number of ARYA Shares equal to 87,505,065 minus the Adjusted Transaction Share Consideration.

Section 2.4 Treatment of Company Equity Awards.

(a) At the Effective Time, by virtue of the Merger and without any action of any Party or any other Person (but subject to, in the case of the Company, Section 2.4(e)), each Company Option (whether a Vested Company Option or an Unvested Company Option) shall cease to represent the right to purchase Company Common Shares and shall be canceled in exchange for options to purchase ARYA Shares under the ARYA Incentive Equity Plan (each, a “Rollover Option”) in an amount, at an exercise price and subject to such terms and conditions, in each case, as set forth on the Allocation Schedule. Each Rollover Option shall be subject to the same terms and conditions (including applicable vesting, expiration and forfeiture provisions) that applied to the corresponding Company Option immediately prior to the Effective Time, except for (i) terms (A) rendered inoperative by reason of the transactions contemplated by this Agreement (including any anti-dilution or other similar provisions that adjust the number of underlying shares that could become exercisable subject to the options) or (B) to the extent they conflict with the ARYA Incentive Equity Plan and (ii) such other immaterial administrative or ministerial changes as the ARYA Board (or the compensation committee of the ARYA Board) may determine in good faith are appropriate to effectuate the administration of the Rollover Options. Such conversion shall occur in a manner intended to comply with the requirements of Section 409A of the Code.

(b) At the Effective Time, by virtue of the Merger and without any action of any Party or any other Person (but subject to, in the case of the Company, Section 2.4(e)), each Vested Company RSU Award shall cease to have any rights in respect of the Company Common Shares and shall be canceled in exchange for a number of ARYA Shares (rounded down to the nearest whole share), in each case, as set forth on the Allocation Schedule.

(c) At the Effective Time, by virtue of the Merger and without any action of any Party or any other Person (but subject to, in the case of the Company, Section 2.4(e)), each Unvested Company RSU Award shall cease to have any rights in respect of the Company Common Shares and shall be canceled in exchange for a restricted stock unit award under the ARYA Incentive Equity Plan (each, a “Rollover RSU Award”) that settles in a number of ARYA Shares (rounded down to the nearest whole share) in an amount and subject to such terms and conditions, in each case, as set forth on the Allocation Schedule. Each Rollover RSU Award shall be subject to the same terms and conditions (including applicable vesting, expiration and forfeiture provisions) that applied to the corresponding Unvested Company RSU Award immediately prior to the Effective Time, except for (i) terms (A) rendered inoperative by reason of the transactions contemplated by this Agreement (including any anti-dilution or other similar provisions that adjust the number of underlying shares that could vest subject to the restricted stock unit award) or (B) to the extent they conflict with the ARYA Incentive Equity Plan and (ii) such other immaterial administrative or ministerial changes as the ARYA Board (or the compensation committee of the ARYA Board) may determine in good faith are appropriate to effectuate the administration of the Rollover RSU Awards.

(d) At the Effective Time, all Company Equity Plans shall terminate and all Company Equity Awards (whether vested or unvested) shall no longer be outstanding and shall automatically be canceled and retired and shall cease to exist, and each holder thereof shall cease to have any rights with respect thereto or under the Company Equity Plans, except as otherwise expressly provided for in this Section 2.4.

(e) Prior to the Closing, the Company shall take, or cause to be taken, all necessary or appropriate actions under the Company Equity Plans (and the underlying grant, award or similar agreements) or otherwise to give effect to the provisions of this Section 2.4.

Section 2.5 Deliverables

(a) As promptly as reasonably practicable following the date of this Agreement, but in no event later than ten (10) Business Days prior to the Closing Date, ARYA shall appoint Continental (or its applicable Affiliate) as an exchange agent (the “Exchange Agent”) and enter into an exchange agent agreement with the Exchange Agent for the purpose of exchanging Certificates, if any, representing the Company Common Shares and each Company Share held in book-entry form on the stock transfer books of the Company immediately prior to the Effective Time, in either case, for the portion of the Adjusted Transaction Share Consideration issuable in respect of such Company Shares pursuant to Section 2.1(b)(vii) and on the terms and subject to the other conditions set forth in this Agreement. Notwithstanding the foregoing or anything to the contrary herein, in the event that Continental is unable or unwilling to serve as the Exchange Agent, then ARYA and the Company shall, as promptly as reasonably practicable thereafter, but in no event later than the Closing Date, mutually agree upon an exchange agent (in either case, such agreement not to be unreasonably withheld, conditioned or delayed), ARYA shall appoint and enter into an exchange agent agreement with such exchange agent, who shall for all purposes under this Agreement constitute the Exchange Agent and each of ARYA and the Company shall mutually agree to any changes to the Letter of Transmittal in order to satisfy any requirements of such exchange agent (in either case, such agreement not to be unreasonably withheld, conditioned or delayed).

(b) At least three (3) Business Days prior to the Closing Date, the Company shall mail or otherwise deliver, or shall cause to be mailed or otherwise delivered, to the Company Shareholders a Letter of Transmittal.

(c) At the Effective Time, ARYA shall deposit, or cause to be deposited, with the Exchange Agent, for the benefit of the Company Shareholders and for exchange in accordance with this Section 2.5 through the Exchange Agent, evidence of ARYA Shares in book-entry form representing the portion of the Adjusted Transaction Share Consideration issuable pursuant to Section 2.1(b)(vii) in exchange for the Company Shares outstanding immediately prior to the Effective Time. All shares in book-entry form representing the portion of the Adjusted Transaction Share Consideration issuable pursuant to Section 2.1(b)(vii) deposited with the Exchange Agent shall be referred to in this Agreement as the “Exchange Fund”.

(d) Each Company Shareholder whose Company Shares have been converted into the right to receive a portion of the Adjusted Transaction Share Consideration pursuant to Section 2.1(b)(vii) shall be entitled to receive the portion of the Adjusted Transaction Share Consideration to which he, she or it is entitled on the date provided in Section 2.5(e) upon (i) surrender of a Certificate (or affidavit of loss in lieu thereof in the form required by the Letter of Transmittal), together with the delivery of a properly completed and duly executed Letter of Transmittal (including, for the avoidance of doubt, any documents or agreements required by the Letter of Transmittal), to the Exchange Agent or (ii) in the case of Company Common Shares held in book-entry form, a properly completed and duly

executed Letter of Transmittal (including, for the avoidance of doubt, any documents or agreements required by the Letter of Transmittal), to the Exchange Agent.

(e) If a properly completed and duly executed Letter of Transmittal, together with any Certificates (or affidavit of loss in lieu thereof in the form required by the Letter of Transmittal), if any, is delivered to the Exchange Agent in accordance with Section 2.5(d), (i) at least one Business Day prior to the Closing Date, then ARYA and the Company shall take all necessary actions to cause the applicable portion of the Adjusted Transaction Share Consideration to be issued to the applicable Company Shareholder in book-entry form on the Closing Date, or (ii) less than one Business Day prior to the Closing Date, then ARYA and the Company (or the Surviving Company) shall take all necessary actions to cause the applicable portion of the Adjusted Transaction Share Consideration to be issued to the Company Shareholder in book-entry form within two (2) Business Days after such delivery.

(f) If any portion of the Adjusted Transaction Share Consideration is to be issued to a Person other than the Company Shareholder in whose name the surrendered Certificate or the transferred Company Share in book-entry form is registered, it shall be a condition to the issuance of the applicable portion of the Adjusted Transaction Share Consideration that (i) either such Certificate shall be properly endorsed or shall otherwise be in proper form for transfer or such Company Share in book-entry form shall be properly transferred and (ii) the Person requesting such consideration pay to the Exchange Agent any transfer Taxes required as a result of such consideration being issued to a Person other than the registered holder of such Certificate or Company Share in book-entry form or establish to the satisfaction of the Exchange Agent that such transfer Taxes have been paid or are not payable.

(g) No interest will be paid or accrued on the Adjusted Transaction Share Consideration (or any portion thereof). From and after the Effective Time, until surrendered or transferred, as applicable, in accordance with this Section 2.5, each Company Share (other than, for the avoidance of doubt, the Company Shares cancelled and extinguished pursuant to Section 2.1(b)(viii) and the Pre-Closing Series A Shares cancelled, extinguished and converted pursuant to Section 2.1(b)(ix)) shall solely represent the right to receive a portion of the Adjusted Transaction Share Consideration to which such Company Share is entitled to receive pursuant to Section 2.1(b)(vii).

(h) At the Effective Time, the stock transfer books of the Company shall be closed and there shall be no transfers of Company Shares that were outstanding immediately prior to the Effective Time.

(i) Any portion of the Exchange Fund that remains unclaimed by the Company Shareholders twelve (12) months following the Closing Date shall be delivered to ARYA or as otherwise instructed by ARYA, and any Company Shareholder who has not exchanged his, her or its Company Shares for the applicable portion of the Adjusted Transaction Share Consideration in accordance with this Section 2.5 prior to that time shall thereafter look only to ARYA for the issuance of the applicable portion of the Adjusted Transaction Share Consideration, without any interest thereon. None of ARYA, the Surviving Company or any of their respective Affiliates shall be liable to any Person in respect of any consideration delivered to a public official pursuant to any applicable abandoned property, unclaimed property, escheat, or similar Law. Any portion of the Adjusted Transaction Share Consideration remaining unclaimed by the Company Shareholders immediately prior to such time when the amounts would otherwise escheat to or become property of any Governmental Entity shall become, to the extent permitted by applicable Law, the property of ARYA free and clear of any claims or interest of any Person previously entitled thereto.

Section 2.6 Withholding. ARYA, the Group Companies and the Exchange Agent shall be entitled to deduct and withhold (or cause to be deducted and withheld) from any consideration payable pursuant to this Agreement such amounts as are required to be deducted and withheld under applicable Tax Law. To the extent that amounts are so withheld and timely remitted to the applicable Governmental Entity, such withheld amounts shall be treated for all purposes of this Agreement as having been paid to the Person in respect of which such deduction and withholding was made. The Parties shall cooperate in good faith to eliminate or reduce any such deduction or withholding (including through the request and provision of any statements, forms or other documents to reduce or eliminate any such deduction or withholding).

ARTICLE 3
REPRESENTATIONS AND WARRANTIES RELATING TO THE GROUP COMPANIES

Subject to Section 8.8, except as set forth in the Company Disclosure Schedules, the Company hereby represents and warrants to the ARYA Parties as follows:

Section 3.1 Organization and Qualification.

(a) Each Group Company is a corporation, limited liability company or other applicable business entity duly organized or formed, as applicable, validly existing and in good standing (or the equivalent thereof, if applicable, in each case, with respect to the jurisdictions that recognize the concept of good standing or any equivalent thereof) under the Laws of its jurisdiction of formation or organization (as applicable). Section 3.1(a) of the Company Disclosure Schedules sets forth the jurisdiction of formation or organization (as applicable) for each Group Company. Each Group Company has the requisite corporate, limited liability company or other applicable business entity power and authority to own, lease and operate its properties and to carry on its businesses as presently conducted, except where the failure to have such power or authority would not have a Company Material Adverse Effect.

(b) True and complete copies of the Governing Documents of the Company, the Company Shareholders Agreement and the Company Registration Rights Agreement have been made available to ARYA, in each case, as amended and in effect as of the date of this Agreement. The Governing Documents of the Company and the Company Shareholders Agreement are in full force and effect, and the Company is not in breach or violation of any provision set forth in its Governing Documents or in material breach of the Company Shareholders Agreement or the Company Registration Rights Agreement.

(c) Each Group Company is duly qualified or licensed to transact business and is in good standing (or the equivalent thereof, if applicable, in each case, with respect to the jurisdictions that recognize the concept of good standing or any equivalent thereof) in each jurisdiction in which the property and assets owned, leased or operated by it, or the nature of the business conducted by it, makes such qualification or licensing necessary, except where the failure to be so duly qualified or licensed and in good standing would not have a Company Material Adverse Effect.

Section 3.2 Capitalization of the Group Companies.

(a) Section 3.2(a) of the Company Disclosure Schedules sets forth a true and complete statement as of the date of this Agreement of (i) the number and class or series (as applicable) of all of the Equity Securities of the Company issued and outstanding, (ii) the identity of the Persons that are the record and beneficial owners thereof and (iii) with respect to each Company Equity Award, (A) the date of grant, (B) any applicable exercise (or similar) price, (C) the expiration date, and (D) any applicable vesting schedule (including acceleration provisions). All of the Equity Securities of the Company have been duly authorized and validly issued. All of the outstanding Company Shares are fully paid and non-assessable. The Equity Securities of the Company (1) were not issued in violation of the Governing Documents of the Company or the Company Shareholders Agreement or any other Contract to which the Company is party or bound, (2) were not issued in violation of any preemptive rights, call option, right of first refusal or first offer, subscription rights, transfer restrictions or similar rights of any Person and (3) have been offered, sold and issued in compliance with applicable Law, including Securities Laws. Except for the Company Equity Awards set forth on Section 3.2(a) of the Company Disclosure Schedules or the Company Equity Awards either permitted by Section 5.1(b) or issued, granted or entered into in accordance with Section 5.1(b), the Company has no outstanding (x) equity appreciation, phantom equity or profit participation rights or (y) options, restricted stock, phantom stock, warrants, purchase rights, subscription rights, conversion rights, exchange rights, calls, puts, rights of first refusal or first offer or other Contracts that could require the Company to issue, sell or otherwise cause to become outstanding or to acquire, repurchase or redeem any Equity Securities or securities convertible into or exchangeable for Equity Securities of the Company.

(b) The Equity Securities of the Company are free and clear of all Liens (other than transfer restrictions under applicable Securities Law or under the Company Shareholders Agreement). Except for the Company Shareholders Agreement, there are no voting trusts, proxies or other Contracts to which the Company is a party with respect to the voting or transfer of the Company's Equity Securities.

(c) Section 3.2(c) of the Company Disclosure Schedules sets forth a true and complete statement of (i) the number and class or series (as applicable) of all of the Equity Securities of each Subsidiary of the Company issued and

outstanding and (ii) the identity of the Persons that are the record and beneficial owners thereof. There are no outstanding (A) equity appreciation, phantom equity, or profit participation rights or (B) options, restricted stock, phantom stock, warrants, purchase rights, subscription rights, conversion rights, exchange rights, calls, puts, rights of first refusal or first offer or other Contracts that could require any Subsidiary of the Company to issue, sell or otherwise cause to become outstanding or to acquire, repurchase or redeem any Equity Securities or securities convertible into or exchangeable for Equity Securities of the Subsidiaries of the Company. There are no voting trusts, proxies or other Contracts with respect to the voting or transfer of any Equity Securities of any Subsidiary of the Company.

(d) None of the Group Companies owns or holds (of record, beneficially, legally or otherwise), directly or indirectly, any Equity Securities in any other Person or the right to acquire any such Equity Security, and none of the Group Companies are a partner or member of any partnership, limited liability company or joint venture.

(e) Section 3.2(e) of the Company Disclosure Schedules sets forth a list of all Indebtedness of the Group Companies as of the date of this Agreement, including the principal amount of such Indebtedness, the outstanding balance as of the date of this Agreement, and the debtor and the creditor thereof.

(f) Section 3.2(f) of the Company Disclosure Schedules sets forth a list of all Change of Control Payments of the Group Companies.

Section 3.3 Authority. The Company has the requisite corporate, limited liability company or other similar power and authority to execute and deliver this Agreement and each Ancillary Document to which it is or will be a party, to perform its obligations hereunder and thereunder, and to consummate the transactions contemplated hereby and thereby. Subject to the receipt of the Company Shareholder Written Consent, the execution and delivery of this Agreement, the Ancillary Documents to which the Company is or will be a party and the consummation of the transactions contemplated hereby and thereby have been (or, in the case of any Ancillary Document entered into after the date of this Agreement, will be upon execution thereof) duly authorized by all necessary corporate (or other similar) action on the part of the Company. This Agreement and each Ancillary Document to which the Company is or will be a party has been or will be, upon execution thereof, as applicable, duly and validly executed and delivered by the Company and constitutes or will constitute, upon execution and delivery thereof, as applicable, a valid, legal and binding agreement of the Company (assuming that this Agreement and the Ancillary Documents to which the Company is or will be a party are or will be upon execution thereof, as applicable, duly authorized, executed and delivered by the other Persons party thereto), enforceable against the Company in accordance with its terms (subject to applicable bankruptcy, insolvency, reorganization, moratorium or other Laws affecting generally the enforcement of creditors' rights and subject to general principles of equity).

Section 3.4 Financial Statements; Undisclosed Liabilities.

(a) The Company has made available to ARYA a true and complete copy of (i) the audited consolidated balance sheets of the Group Companies as of December 31, 2018 and December 31, 2019 and the related audited consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows of the Group Companies for each of the periods then ended and (ii) the unaudited consolidated balance sheets of the Group Companies as of March 31, 2019 and March 31, 2020 (the "Latest Balance Sheet") and the related unaudited consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows of the Group Companies for each of the three-month periods then ended (clauses (i) and (ii), collectively, the "Financial Statements"), each of which are attached as Section 3.4(a) of the Company Disclosure Schedules. Each of the Financial Statements (including the notes thereto) (A) was prepared in accordance with GAAP applied on a consistent basis throughout the periods indicated (except as may be indicated in the notes thereto), (B) fairly presents, in all material respects, the financial position, results of operations and cash flows of the Group Companies as at the date thereof and for the period indicated therein, except as otherwise specifically noted therein, (C) in the case of the Financial Statements described in clause (i) of the preceding sentence, were audited in accordance with the standards of the PCAOB and contain an unqualified report of the Company's auditors and (D) comply in all material respects with the applicable accounting requirements and with the rules and regulations of the SEC, the Exchange Act and the Securities Act in effect as of the respective dates thereof (including Regulation S-X or Regulation S-K, as applicable).

(b) The unaudited consolidated balance sheets of the Group Companies as of June 30, 2019 and June 30, 2020 and the related unaudited consolidated statements of operations and comprehensive loss, convertible preferred stock and

stockholders' deficit and cash flows of the Group Companies for each of the six-month periods then ended (the "Closing Company Unaudited Financial Statements"), when delivered following the date of this Agreement in accordance with Section 5.17, (i) will be prepared in accordance with GAAP applied on a consistent basis throughout the periods indicated (except as may be indicated in the notes thereto), (ii) will fairly present, in all material respects, the financial position, results of operations and cash flows of the Group Companies as at the date thereof and for the period indicated therein, except as otherwise specifically noted therein and (iii) will comply in all material respects with the applicable accounting requirements and with the rules and regulations of the SEC, the Exchange Act and the Securities Act in effect as of the respective dates thereof (including Regulation S-X or Regulation S-K, as applicable).

(c) Except (i) as set forth on the face of the Latest Balance Sheet, (ii) for Liabilities incurred in the ordinary course of business since the date of the Latest Balance Sheet (none of which is a Liability for breach of contract, breach of warranty, tort, infringement or violation of Law), (iii) for Liabilities incurred in connection with the negotiation, preparation or execution of this Agreement or any Ancillary Documents, the performance of their respective covenants or agreements in this Agreement or any Ancillary Document or the consummation of the transactions contemplated hereby or thereby and (iv) for Liabilities that are not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole, no Group Company has any Liabilities of the type required to be set forth on a balance sheet in accordance with GAAP.

(d) The Group Companies have established and maintain systems of internal accounting controls that are designed to provide, in all material respects, reasonable assurance that (i) all transactions are executed in accordance with management's authorization and (ii) all transactions are recorded as necessary to permit preparation of proper and accurate financial statements in accordance with GAAP and to maintain accountability for the Group Companies' assets. The Group Companies maintain and, for all periods covered by the Financial Statements, have maintained books and records of the Group Companies in the ordinary course of business that are accurate and complete and reflect the revenues, expenses, assets and liabilities of the Group Companies in all material respects.

(e) Except as set forth in Section 3.4(e) of the Company Disclosure Schedule, since the incorporation of the Company, no Group Company has received any written complaint, allegation, assertion or claim that there is (i) "significant deficiency" in the internal controls over financial reporting of the Group Companies to the Company's knowledge, (ii) a "material weakness" in the internal controls over financial reporting of the Group Companies to the Company's knowledge or (iii) fraud, whether or not material, that involves management or other employees of the Group Companies who have a significant role in the internal controls over financial reporting of the Group Companies.

Section 3.5 Consents and Requisite Governmental Approvals; No Violations.

(a) No consent, approval or authorization of, or designation, declaration or filing with, any Governmental Entity is required on the part of the Company with respect to the Company's execution, delivery or performance of its obligations under this Agreement or the Ancillary Documents to which the Company is or will be party or the consummation of the transactions contemplated by this Agreement or by the Ancillary Documents, except for (i) compliance with and filings under the HSR Act, (ii) the filing with the SEC of (A) the Registration Statement / Proxy Statement and the declaration of the effectiveness thereof by the SEC and (B) such reports under Section 13(a) or 15(d) of the Exchange Act as may be required in connection with this Agreement, the Ancillary Documents or the transactions contemplated hereby or thereby, (iii) filing of the Certificate of Merger or (iv) any other consents, approvals, authorizations, designations, declarations, waivers or filings, the absence of which would not have a Company Material Adverse Effect.

(b) Neither the execution, delivery or performance by the Company of this Agreement nor the Ancillary Documents to which the Company is or will be a party nor the consummation of the transactions contemplated hereby or thereby will, directly or indirectly (with or without due notice or lapse of time or both) (i) result in any breach of any provision of the Company's Governing Documents, (ii) result in a violation or breach of, or constitute a default or give rise to any right of termination, Consent, cancellation, amendment, modification, suspension, revocation or acceleration under, any of the terms, conditions or provisions of (A) any Contract to which any Group Company is a party or (B) any Material Permits, (iii) violate, or constitute a breach under, any Order or applicable Law to which any Group Company or any of its properties or assets are bound or (iv) result in the creation of any Lien upon any of the assets or properties (other than any Permitted Liens) or Equity Securities of any Group Company, except, in the case of any of clauses (ii) through (iv) above, as would not have a Company Material Adverse Effect.

Section 3.6 Permits. Each of the Group Companies has all Permits (the “Material Permits”) that are required to own, lease or operate its properties and assets and to conduct its business as currently conducted, except where the failure to hold the same would not result in a Company Material Adverse Effect. Except as is not and would not reasonably be expected to be material to the Group Companies, taken as a whole, (i) each Material Permit is in full force and effect in accordance with its terms and (ii) no written notice of revocation, cancellation or termination of any Material Permit has been received by the Group Companies.

Section 3.7 Material Contracts.

(a) Section 3.7(a) of the Company Disclosure Schedules sets forth a list of the following Contracts to which a Group Company is, as of the date of this Agreement, a party (each Contract required to be set forth on Section 3.7(a) of the Company Disclosure Schedules, together with each of the Contracts entered into after the date of this Agreement that would be required to be set forth on Section 3.7(a) of the Company Disclosure Schedules if entered into prior to the execution and delivery of this Agreement, collectively, the “Material Contracts”):

- (i) any Contract relating to Indebtedness of any Group Company or to the placing of a Lien (other than any Permitted Lien) on any material assets or properties of any Group Company;
- (ii) any Contract under which any Group Company is lessee of or holds or operates, in each case, any tangible property (other than real property), owned by any other Person, except for any lease or agreement under which the aggregate annual rental payments do not exceed \$2,000,000;
- (iii) any Contract under which any Group Company is lessor of or permits any third party to hold or operate, in each case, any tangible property (other than real property), owned or controlled by such Group Company, except for any lease or agreement under which the aggregate annual rental payments do not exceed \$2,000,000;
- (iv) any (A) joint venture, profit-sharing, partnership, collaboration, co-promotion, commercialization or research or development Contract, in each case, which requires, or would reasonably be expected to require (based on any occurrence, development, activity or event contemplated by such Contract), aggregate payments to or from any Group Company in excess of \$5,000,000 over the life of the Contract and (B) any Contract with respect to material Company Licensed Intellectual Property (other than any Contract of the type described in clauses (A) through (C) of Section 3.13(c));
- (v) any Contract that (A) limits or purports to limit, in any material respect, the freedom of any Group Company to engage or compete in any line of business or with any Person or in any area or that would so limit or purport to limit, in any material respect, the operations of ARYA or any of its Affiliates after the Closing, (B) contains any exclusivity, “most favored nation” or similar provisions, obligations or restrictions or (C) contains any other provisions restricting or purporting to restrict the ability of any Group Company to sell, manufacture, develop, commercialize, test or research products, directly or indirectly through third parties, or to solicit any potential employee or customer in any material respect or that would so limit or purports to limit, in any material respect, ARYA or any of its Affiliates after the Closing;
- (vi) any Contract requiring any future capital commitment or capital expenditure (or series of capital expenditures) by any Group Company in an amount in excess of (A) \$2,000,000 annually or (B) \$5,000,000 over the life of the agreement;
- (vii) any Contract requiring any Group Company to guarantee the Liabilities of any Person (other than the Company or a Subsidiary) or pursuant to which any Person (other than the Company or a Subsidiary) has guaranteed the Liabilities of a Group Company, in each case in excess of \$2,000,000;
- (viii) any Contract under which any Group Company has, directly or indirectly, made or agreed to make any loan, advance, or assignment of payment to any Person or made any capital contribution to, or other investment in, any Person;
- (ix) any Contract required to be disclosed on Section 3.19 of the Company Disclosure Schedules;
- (x) any Contract with any Person (A) pursuant to which any Group Company (or ARYA or any of its Affiliates after the Closing) may be required to pay milestones, royalties or other contingent payments based on any research, testing, development, regulatory filings or approval, sale, distribution, commercial manufacture or other similar occurrences, developments, activities or events or (B) under which any Group Company grants to any Person any

right of first refusal, right of first negotiation, option to purchase, option to license or any other similar rights with respect to any Company Product or any Intellectual Property;

(xi) any Contract (A) governing the terms of, or otherwise related to, the employment, engagement or services of any current director, manager, officer, employee, individual independent contractor or other service provider of a Group Company whose annual base salary (or, in the case of an independent contractor, annual base compensation) is in excess of \$200,000, or (B) providing for any Change of Control Payment of the type described in clause (a) of the definition thereof;

(xii) any Contract for the disposition of any portion of the assets or business of any Group Company or for the acquisition by any Group Company of the assets or business of any other Person (other than acquisitions or dispositions made in the ordinary course of business), or under which any Group Company has any continuing obligation with respect to an “earn-out”, contingent purchase price or other contingent or deferred payment obligation;

(xiii) any settlement, conciliation or similar Contract (A) the performance of which would be reasonably likely to involve any payments after the date of this Agreement, (B) with a Governmental Entity or (C) that imposes or is reasonably likely to impose, at any time in the future, any material, non-monetary obligations on any Group Company (or ARYA or any of its Affiliates after the Closing); and

(xiv) any other Contract the performance of which requires either (A) annual payments to or from any Group Company in excess of \$2,000,000 or (B) aggregate payments to or from any Group Company in excess of \$5,000,000 over the life of the agreement and, in each case, that is not terminable by the applicable Group Company without penalty upon less than thirty (30) days’ prior written notice.

(b) (i) Each Material Contract is valid and binding on the applicable Group Company and, to the knowledge of the Company, the counterparty thereto, and is in full force and effect and (ii) the applicable Group Company and, to the knowledge of the Company, the counterparties thereto are not in material breach of, or default under, any Material Contract.

Section 3.8 Absence of Changes. During the period beginning on March 31, 2020 and ending on the date of this Agreement, (a) no Company Material Adverse Effect has occurred and (b) except as expressly contemplated by this Agreement, any Ancillary Document or in connection with the transactions contemplated hereby and thereby, (i) the Company has conducted its business in the ordinary course in all material respects and (ii) no Group Company has taken any action that would require the consent of ARYA if taken during the period from the date of this Agreement until the Closing pursuant to Section 5.1(b)(i), Section 5.1(b)(vii), Section 5.1(b)(x), Section 5.1(b)(xiii) or Section 5.1(b)(xiv).

Section 3.9 Litigation. As of the date of this Agreement, there is (and since December 31, 2018 there has been) no Proceeding pending or, to the Company’s knowledge, threatened against any Group Company that, if adversely decided or resolved, has been or would reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole. Neither the Group Companies nor any of their respective properties or assets is subject to any material Order. As of the date of this Agreement, there are no material Proceedings by a Group Company pending against any other Person.

Section 3.10 Compliance with Applicable Law. Each Group Company (a) conducts (and since December 31, 2018 has conducted) its business in accordance with all Laws and Orders applicable to such Group Company and is not in violation of any such Law or Order and (b) has not received any written communications from a Governmental Entity that alleges that such Group Company is not in compliance with any such Law or Order, except in each case of clauses (a) and (b), as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole.

Section 3.11 Employee Plans.

(a) Section 3.11(a) of the Company Disclosure Schedules sets forth a true and complete list of all material Employee Benefit Plans (including, for each such Employee Benefit Plan, its jurisdiction). With respect to each material Employee Benefit Plan, the Group Companies have provided ARYA with true and complete copies of the material documents pursuant to which the plan is maintained, funded and administered.

(b) No Group Company has any Liability with respect to or under: (i) a Multiemployer Plan; (ii) a “defined benefit plan” (as defined in Section 3(35) of ERISA, whether or not subject to ERISA) or a plan that is or was subject to Title IV of ERISA or Section 412 of the Code; (iii) a “multiple employer plan” within the meaning of Section 413(c) of the Code or Section 210 of ERISA; or (iv) a “multiple employer welfare arrangement” as defined in Section 3(40) of ERISA. No Group Company has any material Liabilities to provide any retiree or post-termination health or life insurance or other welfare-type benefits to any Person other than health continuation coverage pursuant to COBRA or similar Law and for which the recipient pays the full cost of coverage. No Group Company has any material Liabilities by reason of at any time being considered a single employer under Section 414 of the Code with any other Person.

(c) Each Employee Benefit Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and has timely received a favorable determination or opinion or advisory letter from the Internal Revenue Service. None of the Group Companies has incurred (whether or not assessed) any material penalty or Tax under Section 4980H, 4980B, 4980D, 6721 or 6722 of the Code.

(d) As of the date of this Agreement, there are no pending or, to the Company’s knowledge, threatened in writing claims or Proceedings with respect to any Employee Benefit Plan (other than routine claims for benefits). There have been no non-exempt “prohibited transactions” within the meaning of Section 4975 of the Code or Sections 406 or 407 of ERISA and no breaches of fiduciary duty (as determined under ERISA) with respect to any Employee Benefit Plan, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole. With respect to each Employee Benefit Plan, all contributions, distributions, reimbursements and premium payments that are due have been timely made, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole.

(e) The execution and delivery of this Agreement and the consummation of the transactions contemplated by this Agreement will not materially (alone or in combination with any other event) (i) result in any payment or benefit becoming due to or result in the forgiveness of any indebtedness of any current or former director, manager, officer, employee, individual independent contractor or other service providers of any of the Group Companies, (ii) increase the amount or value of any compensation or benefits payable to any current or former director, manager, officer, employee, individual independent contractor or other service providers of any of the Group Companies or (iii) result in the acceleration of the time of payment or vesting, or trigger any payment or funding of any compensation or benefits to any current or former director, manager, officer, employee, individual independent contractor or other service providers of any of the Group Companies.

(f) No amount that could be received (whether in cash or property or the vesting of property) by any “disqualified individual” of any of the Group Companies under any Employee Benefit Plan or otherwise as a result of the consummation of the transactions contemplated by this Agreement could, separately or in the aggregate, be nondeductible under Section 280G of the Code or subjected to an excise tax under Section 4999 of the Code.

(g) The Group Companies have no material obligation to make a “gross-up” or similar payment in respect of any taxes that may become payable under Section 4999 or 409A of the Code.

(h) Each Foreign Benefit Plan that is required to be registered or intended to be tax exempt has been registered (and, where applicable, accepted for registration) and is tax exempt and has been maintained in good standing, to the extent applicable, with each Governmental Entity. No Foreign Benefit Plan is a “defined benefit plan” (as defined in ERISA, whether or not subject to ERISA) or has any material unfunded or underfunded Liabilities. All material contributions required to have been made by or on behalf of the Group Companies with respect to plans or arrangements maintained or sponsored a Governmental Entity (including severance, termination indemnities or other similar benefits maintained for employees outside of the U.S.) have been timely made or fully accrued.

Section 3.12 Environmental Matters. Except as would not have a Company Material Adverse Effect:

(a) None of the Group Companies have received any written notice or communication from any Governmental Entity or any other Person regarding any actual, alleged, or potential violation in any respect of, or a failure to comply in any respect with, any Environmental Laws.

(b) There is (and since the incorporation of the Company there has been) no Proceeding pending or, to the Company’s knowledge, threatened in writing against any Group Company pursuant to Environmental Laws.

(c) There has been no manufacture, release, treatment, storage, disposal, arrangement for disposal, transport or handling of, contamination by, or exposure of any Person to, any Hazardous Substances.

The Group Companies have made available to ARYA copies of all material environmental, health and safety reports and documents that are in any Group Company's possession or control relating to the current or former operations, properties or facilities of the Group Companies.

Section 3.13 Intellectual Property.

(a) Section 3.13(a) of the Company Disclosure Schedules sets forth a true and complete list of (i) all currently issued or pending Company Registered Intellectual Property, (ii) Company Licensed Intellectual Property and (iii) material unregistered Marks and Copyrights owned by any Group Company, in each case, as of the date of this Agreement. Section 3.13(a) of the Company Disclosure Schedules lists, for each item of Company Registered Intellectual Property as of the date of this Agreement (A) the record owner of such item, (B) the jurisdictions in which such item has been issued or registered or filed, (C) the issuance, registration or application date, as applicable, for such item and (D) the issuance, registration or application number, as applicable, for such item.

(b) As of the date of this Agreement, all necessary fees and filings with respect to any material Company Registered Intellectual Property have been timely submitted to the relevant intellectual property office or Governmental Entity and Internet domain name registrars to maintain such material Company Registered Intellectual Property in full force and effect. As of the date of this Agreement, no issuance or registration obtained and no application filed by the Group Companies for any Intellectual Property has been cancelled, abandoned, allowed to lapse or not renewed, except where such Group Company has, in its reasonable business judgment, decided to cancel, abandon, allow to lapse or not renew such issuance, registration or application. As of the date of this Agreement there are no material Proceedings pending, including litigations, interference, re-examination, *inter partes* review, reissue, opposition, nullity, or cancellation proceedings pending that relate to any of the Company Registered Intellectual Property and, to the Company's knowledge, no such material Proceedings are threatened by any Governmental Entity or any other Person.

(c) A Group Company exclusively owns all right, title and interest in and to all material Company Owned Intellectual Property free and clear of all Liens or obligations to others (other than Permitted Liens). For all Patents owned by the Group Companies, each inventor on the Patent has assigned their rights to a Group Company. No Group Company has (i) transferred ownership of, or granted any exclusive license with respect to, any material Company Owned Intellectual Property to any other Person or (ii) granted any customer the right to use any material Company Product or service on anything other than a non-exclusive basis. Section 3.13(c) of the Company Disclosure Schedules sets forth a list of all current Contracts for Company Licensed Intellectual Property as of the date of this Agreement to which any Person has been granted any license or covenant not to sue under, or otherwise has received or acquired any right (whether or not exercisable) or interest in, any Company Owned Intellectual Property, other than (A) licenses to Off-the-Shelf Software, (B) licenses to Public Software and (C) non-disclosure agreements and licenses granted by employees, individual consultants or individual contractors of any Group Company pursuant to Contracts with employees, individual consultants or individual contractors, in each case, that do not materially differ from the Group Companies' form therefor that has been made available to ARYA. (x) The applicable Group Company has valid rights under all Contracts for Company Licensed Intellectual Property to use, sell, license and otherwise exploit, as the case may be, all Company Licensed Intellectual Property licensed pursuant to such Contracts as the same is currently used, sold, licensed and otherwise exploited by such Group Company, and (y), except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole. The Company Owned Intellectual Property and the Company Licensed Intellectual Property, to the knowledge of the Company, constitutes all of the Intellectual Property used or held for use by the Group Companies in the operation of their respective businesses, and, to the Company's knowledge, all Intellectual Property necessary and sufficient to enable the Group Companies to conduct their respective businesses as currently conducted in all material respects. The Company Registered Intellectual Property and the Company Licensed Intellectual Property, to the knowledge of the Company, is valid, subsisting and enforceable, and, to the Company's knowledge, all of the Group Companies' rights in and to the Company Registered Intellectual Property, the Company Owned Intellectual Property and the Company Licensed Intellectual Property, are valid and enforceable (in each case, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other Laws affecting generally the enforcement of creditors' rights and subject to general principles of equity).

(d) Each Group Company's employees, consultants, advisors and independent contractors who independently or jointly contributed to or otherwise participated in the authorship, invention, creation, improvement, modification or development of any material Company Owned Intellectual Property since December 31, 2018 (each such person, a "Creator") have agreed to maintain and protect the trade secrets and confidential information of all Group Companies. Each Group Company's employees, consultants, advisors and independent contractors who independently or jointly contributed to or otherwise participated in the authorship, invention, creation, improvement, modification or development of any material Company Owned Intellectual Property have assigned or have agreed to a present assignment to such Group Company all Intellectual Property Rights authored, invented, created, improved, modified or developed by such person in the course of such Creator's employment or other engagement with such Group Company.

(e) Each Group Company has taken all reasonable steps to safeguard and maintain the secrecy of any trade secrets, know-how and other confidential information owned by Each Group Company. Without limiting the foregoing, each Group Company has not disclosed any trade secrets, know-how or confidential information to any other Person unless such disclosure was under an appropriate written non-disclosure agreement containing appropriate limitations on use, reproduction and disclosure. To the Company's knowledge, there has been no violation or unauthorized access to or disclosure of any trade secrets, know-how or confidential information of or in the possession each Group Company, or of any written obligations with respect to such.

(f) None of the Company Owned Intellectual Property and, to the Company's knowledge, none of the Company Licensed Intellectual Property is subject to any outstanding Order that restricts in any manner the use, sale, transfer, licensing or exploitation thereof by the Group Companies or affects the validity, use or enforceability of any such Company Owned Intellectual Property, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole.

(g) To the Company's knowledge, neither the conduct of the business of the Group Companies nor any of the Company Products offered, marketed, licensed, provided, sold, distributed or otherwise exploited by the Group Companies nor the design, development, manufacturing, reproduction, use, marketing, offer for sale, sale, importation, exportation, distribution, maintenance or other exploitation of any Company Product infringes, constitutes or results from an unauthorized use or misappropriation of or otherwise violates any Intellectual Property Rights of any other Person, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole.

(h) Since December 31, 2018, there is no material Proceeding pending nor has any Group Company received any written communications (i) alleging that a Group Company has infringed, misappropriated or otherwise violated any Intellectual Property Rights of any other Person, (ii) challenging the validity, enforceability, use or exclusive ownership of any Company Owned Intellectual Property or (iii) inviting any Group Company to take a license under any Patent or consider the applicability of any Patents to any products or services of the Group Companies or to the conduct of the business of the Group Companies.

(i) To the Company's knowledge, no Person is infringing, misappropriating, misusing, diluting or violating any Company Owned Intellectual Property in any material respect. Since December 31, 2018, no Group Company has made any written claim against any Person alleging any infringement, misappropriation or other violation of any Company Owned Intellectual Property in any material respect.

(j) To the Company's knowledge, each Group Company has obtained, possesses and is in compliance with valid licenses to use all of the Software present on the computers and other Software-enabled electronic devices that it owns or leases or that is otherwise used by such Group Company and/or its employees in connection with the Group Company business, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as whole. No Group Company has disclosed or delivered to any escrow agent or any other Person, other than employees or contractors who are subject to confidentiality obligations, any of the source code that is Company Owned Intellectual Property, and no other Person has the right, contingent or otherwise, to obtain access to or use any such source code. To the Company's knowledge, no event has occurred, and no circumstance or condition exists, that (with or without notice or lapse of time or both) will, or would reasonably be expected to, result in the delivery, license or disclosure of any source code that is owned by a Group Company or otherwise constitutes Company Owned Intellectual Property to any Person who is not, as of the date the event occurs or circumstance or condition comes into existence, a current employee or contractor of a Group Company subject to confidentiality obligations with respect thereto.

(k) Section 3.13(k) of the Company Disclosure Schedules sets forth all material Public Software that is incorporated or embedded in any proprietary Software of a Group Company by any Group Company as of the date of this Agreement. No Group Company has accessed, used, modified, linked to, created derivative works from or incorporated into any proprietary Software that constitutes a product or service offered by a Group Company or is otherwise considered Company Owned Intellectual Property and that is distributed outside of the Group Companies, or is otherwise used in a manner that may trigger or subject such Group Company to any obligations set forth in the license for such Public Software, any Public Software, in whole or in part, in each case in a manner that (i) requires any Company Owned Intellectual Property to be licensed, sold, disclosed, distributed, hosted or otherwise made available, including in source code form and/or for the purpose of making derivative works, for any reason, (ii) grants, or requires any Group Company to grant, the right to decompile, disassemble, reverse engineer or otherwise derive the source code or underlying structure of any Company Owned Intellectual Property, (iii) limits in any manner the ability to charge license fees or otherwise seek compensation in connection with marketing, licensing or distribution of any Company Owned Intellectual Property or (iv) otherwise imposes any limitation, restriction or condition on the right or ability of any Group Company to use, hold for use, license, host, distribute or otherwise dispose of any Company Owned Intellectual Property, other than compliance with notice and attribution requirements, in each case, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole.

Section 3.14 Labor Matters.

(a) Since the incorporation of the Company, (i) none of the Group Companies (A) has or has had any material Liability for any arrears of wages or other compensation for services (including salaries, wage premiums, commissions, fees or bonuses), or any penalty or other sums for failure to comply with any of the foregoing, and (B) has or has had any material Liability for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Entity with respect to unemployment compensation benefits, social security, social insurances or other benefits or obligations for any employees of any Group Company (other than routine payments to be made in the normal course of business and consistent with past practice); and (ii) the Group Companies have withheld all amounts required by applicable Law or by agreement to be withheld from wages, salaries and other payments to employees or independent contractors or other service providers of each Group Company, except as has not and would not reasonably be expected to result in, individually or in the aggregate, material Liability to the Group Companies.

(b) Since the incorporation of the Company, there has been no “mass layoff” or “plant closing” as defined by WARN related to any Group Company, and the Group Companies have not incurred any material Liability under WARN nor will they incur any Liability under WARN as a result of the transactions contemplated by this Agreement.

(c) No Group Company is a party to or bound by any collective bargaining agreements or other agreements with any labor organization, labor union, works council or other employee representative or any other Contract with a labor union, labor organization, works council, employee delegate, representative or other employee collective group nor to the knowledge of the Company is there any duty on the part of any Group Company to bargain with any labor union, labor organization, works council, employee delegate, representative or other employee collective group. Since December 31, 2018, there has been no actual or, to the Company’s knowledge, threatened unfair labor practice charges, material grievances, arbitrations, strikes, lockouts, work stoppages, slowdowns, picketing, hand billing or other material labor disputes against or affecting any Group Company. To the Company’s knowledge, since December 31, 2018, there have been no labor organizing activities with respect to any employees of any Group Company.

(d) No employee layoff, facility closure or shutdown (whether voluntary or by Order), reduction-in-force, furlough, temporary layoff, material work schedule change or reduction in hours, or reduction in salary or wages, or other workforce changes affecting employees of the Group Companies has occurred within the past six (6) months or is currently contemplated, planned or announced, including as a result of COVID-19 or any Law, Order, directive, guidelines or recommendations by any Governmental Entity in connection with or in response to COVID-19. The Group Companies have not otherwise experienced any material employment-related liability with respect to or arising out of COVID-19 or any Law, Order, directive, guidelines or recommendations by any Governmental Entity in connection with or in response to COVID-19.

Section 3.15 Insurance. Section 3.15 of the Company Disclosure Schedules sets forth a list of all material policies of fire, liability, workers' compensation, property, casualty and other forms of insurance owned or held by any Group Company as of the date of this Agreement. All such policies are in full force and effect, all premiums due and payable thereon as of the date of this Agreement have been paid in full as of the date of this Agreement, and true and complete copies of all such policies have been made available to ARYA. As of the date of this Agreement, no claim by any Group Company is pending under any such policies as to which coverage has been denied or disputed, or rights reserved to do so, by the underwriters thereof, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole.

Section 3.16 Tax Matters.

(a) Each Group Company has prepared and filed all material Tax Returns required to have been filed by it, all such Tax Returns are true and complete in all material respects and prepared in compliance in all material respects with all applicable Laws and Orders, and each Group Company has paid all material Taxes required to have been paid by it regardless of whether shown on a Tax Return.

(b) Each Group Company has timely withheld and paid to the appropriate Tax Authority all material amounts required to have been withheld and paid in connection with amounts paid or owing to any employee, individual independent contractor, other service providers, equity interest holder or other third-party.

(c) No Group Company is currently the subject of a Tax audit or examination with respect to material Taxes. No Group Company has been informed in writing of the commencement or anticipated commencement of any Tax audit or examination that has not been resolved or completed in each case with respect to material Taxes.

(d) No Group Company has consented to extend or waive the time in which any material Tax may be assessed or collected by any Tax Authority, other than any such extensions or waivers that are no longer in effect or that were extensions of time to file Tax Returns obtained in the ordinary course of business.

(e) No "closing agreement" as described in Section 7121 of the Code (or any corresponding or similar provision of state, local or non-U.S. income Tax Law), private letter rulings, technical advice memoranda or similar agreements or rulings have been entered into or issued by any Tax Authority with respect to a Group Company which agreement or ruling would be effective after the Closing Date.

(f) No Group Company is or has been a party to any "listed transaction" as defined in Section 6707A of the Code and Treasury Regulations Section 1.6011-4 (or any corresponding or similar provision of state, local or non-U.S. income Tax Law).

(g) There are no Liens for material Taxes on any assets of the Group Companies other than Permitted Liens.

(h) During the two (2)-year period ending on the date of this Agreement, no Group Company was a distributing corporation or a controlled corporation in a transaction purported or intended to be governed by Section 355 of the Code.

(i) No Group Company (i) has been a member of an affiliated group filing a consolidated federal income Tax Return (other than a group the common parent of which was a Group Company or any of its current Affiliates) or (ii) has any material Liability for the Taxes of any Person (other than a Group Company or any of its current Affiliates) under Section 1.1502-6 of the Treasury Regulations (or any similar provision of state, local or non-United States Law), as a transferee or successor or by Contract (other than any Contract the principal purpose of which does not relate to Taxes).

(j) No written claims have ever been made by any Tax Authority in a jurisdiction where a Group Company does not file Tax Returns that such Group Company is or may be subject to taxation by that jurisdiction, which claims have not been resolved or withdrawn.

(k) No Group Company is a party to any Tax allocation, Tax sharing or Tax indemnity or similar agreements (other than one that is included in a Contract entered into in the ordinary course of business that is not primarily related to Taxes) and no Group Company is a party to any joint venture, partnership or other arrangement that is treated as a partnership for U.S. federal income Tax purposes.

(l) Each Group Company is tax resident only in its jurisdiction of formation.

(m) No Group Company has a permanent establishment (within the meaning of an applicable Tax treaty) or otherwise has an office or fixed place of business in a country other than the country in which it is organized.

(n) No Group Company has taken or agreed to take any action not contemplated by this Agreement and/or any Ancillary Document that could reasonably be expected to prevent the Merger from qualifying for the Intended Tax Treatment. To the knowledge of the Company, no facts or circumstances exist, other than any facts or circumstances to the extent that such facts or circumstances exist or arise as a result of or related to any act or omission occurring after the signing date of any ARYA Party or any of their respective Affiliates not contemplated by this Agreement and/or any of the Ancillary Documents, that could reasonably be expected to prevent the Merger (or, if applicable, the Alternative Transaction Structure) from qualifying for the Intended Tax Treatment.

Section 3.17 Brokers. Except for fees (including the amounts due and payable assuming the Closing occurs) set forth on Section 3.17 of the Company Disclosure Schedules (which fees shall be the sole responsibility of the Company, except as otherwise provided in Section 8.6), no broker, finder, investment banker or other Person is entitled to any brokerage fee, finders' fee or other commission in connection with the transactions contemplated by this Agreement based upon arrangements made by or on behalf of the Company or any of its Affiliates for which any of the Group Companies has any obligation.

Section 3.18 Real and Personal Property.

(a) Owned Real Property. No Group Company owns any real property.

(b) Leased Real Property. Section 3.18(b) of the Company Disclosure Schedules sets forth a true and complete list (including street addresses) of all real property leased by any of the Group Companies (the "Leased Real Property") and all Real Property Leases pursuant to which any Group Company is a tenant or landlord as of the date of this Agreement. True and complete copies of all such Real Property Leases have been made available to ARYA. Each Real Property Lease is in full force and effect and is a valid, legal and binding obligation of the applicable Group Company party thereto, enforceable in accordance with its terms against such Group Company and, to the Company's knowledge, each other party thereto (subject to applicable bankruptcy, insolvency, reorganization, moratorium or other Laws affecting generally the enforcement of creditors' rights and subject to general principles of equity). There is no material breach or default by any Group Company or, to the Company's knowledge, any third party under any Real Property Lease, and, to the Company's knowledge, no event has occurred which (with or without notice or lapse of time or both) would constitute a material breach or default or would permit termination of, or a material modification or acceleration thereof by any party to such Real Property Leases.

(c) Personal Property. Each Group Company has good, marketable and indefeasible title to, or a valid leasehold interest in or license or right to use, all of the material assets and properties of the Group Companies reflected in the Financial Statements or thereafter acquired by the Group Companies, except for assets disposed of in the ordinary course of business.

Section 3.19 Transactions with Affiliates. Section 3.19 of the Company Disclosure Schedules sets forth all Contracts between (a) any Group Company, on the one hand, and (b) any officer, director, employee, partner, member, manager, direct or indirect equityholder or Affiliate of any Group Company (other than, for the avoidance of doubt, any other Group Company) or any family member of the foregoing Persons, on the other hand (each Person identified in this clause (b), a "Company Related Party"), other than (i) Contracts with respect to a Company Related Party's employment with (including benefit plans and other ordinary course compensation from) any of the Group Companies entered into in the ordinary course of business, (ii) Contracts with respect to a Company Shareholder's or a holder of Company Equity Awards' status as a holder of Equity Securities of the Company and (iii) Contracts entered into after the date of this Agreement that are either permitted pursuant to Section 5.1(b) or entered into in accordance with Section 5.1(b). No Company Related Party (A) owns any interest in any material asset used in any Group Company's business, or (B) owes any material amount to, or is owed any material amount by, any Group Company (other than ordinary course accrued compensation, employee benefits, employee or director expense reimbursement or other transactions entered into after the date of this Agreement that are either permitted pursuant to Section 5.1(b) or entered into in accordance with Section 5.1(b)). All Contracts, arrangements, understandings, interests and other matters that are required to be disclosed pursuant to this Section 3.19 are referred to herein as "Company Related Party Transactions".

Section 3.20 Data Privacy and Security.

- (a) Each Group Company has implemented written policies relating to the Processing of Personal Data as and to the extent required by applicable Law (“Privacy and Data Security Policies”).
- (b) The Company has not received notice of any pending Proceedings, nor has there been any material Proceedings against any Group Company initiated by (i) any Person; (ii) the United States Federal Trade Commission, any state attorney general or similar state official; or (iii) any other Governmental Entity, in each case, alleging that any Processing of Personal Data by or on behalf of a Group Company (A) is in violation of any applicable Privacy Laws or (B) is in violation of any Privacy and Data Security Policies.
- (c) Since the incorporation of the Company, (i) there has been no unauthorized access, use or disclosure of Personal Data in the possession or control of any Group Company and (ii) there have been no unauthorized intrusions or breaches of security into any Group Company systems, except, in the case of clauses (i) and (ii), as would not have a Company Material Adverse Effect.
- (d) Each Group Company owns or has a license to use the Company IT Systems as necessary to operate the business of each Group Company as currently conducted.

Section 3.21 Compliance with International Trade & Anti-Corruption Laws.

- (a) Neither the Group Companies nor, to the Company’s knowledge, any of their Representatives, or any other Persons acting for or on behalf of any of the foregoing, is or has been, since the incorporation of the Company, (i) a Person named on any Sanctions and Export Control Laws-related list of designated Persons maintained by a Governmental Entity; (ii) located, organized or resident in a country or territory which is itself the subject of or target of any Sanctions and Export Control Laws; (iii) an entity owned, directly or indirectly, by one or more Persons described in clause (i) or (ii); or (iv) otherwise engaging in dealings with or for the benefit of any Person described in clauses (i) - (iii) or any country or territory which is or has, since the incorporation of the Company, been the subject of or target of any Sanctions and Export Control Laws (at the time of this Agreement, the Crimea region of Ukraine, Cuba, Iran, North Korea, Venezuela, Sudan and Syria).
- (b) Neither the Group Companies nor, to the Company’s knowledge, any of their Representatives, or any other Persons acting for or on behalf of any of the foregoing has (i) made, offered, promised, paid or received any unlawful bribes, kickbacks or other similar payments to or from any Person, (ii) made or paid any contributions, directly or indirectly, to a domestic or foreign political party or candidate or (iii) otherwise made, offered, received, authorized, promised or paid any improper payment under any Anti-Corruption Laws.

Section 3.22 Information Supplied. None of the information supplied or to be supplied by or on behalf of the Group Companies expressly for inclusion or incorporation by reference prior to the Closing in the Registration Statement / Proxy Statement will, when the Registration Statement / Proxy Statement is declared effective or when the Registration Statement / Proxy Statement is mailed to the Pre-Closing ARYA Holders or at the time of the ARYA Shareholders Meeting, and in the case of any amendment thereto, at the time of such amendment, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not misleading.

Section 3.23 Regulatory Compliance.

- (a) Section 3.23(a) of the Company Disclosure Schedules sets forth, as of the date of this Agreement, a complete and correct list of all material Regulatory Permits held by the Group Companies, which are the only Regulatory Permits that are necessary for the Group Companies to conduct their Business. The Group Companies and the Company Products are in compliance in all material respects with all Regulatory Permits, and to the knowledge of the Company, no event, circumstance or state of facts has occurred which (with or without due notice or lapse of time or both) would reasonably be expected to result in the failure of a Group Company to be in compliance in all material respects with the terms of any such Regulatory Permit. To the knowledge of the Company, (i) no Governmental Entity is considering limiting, suspending or revoking any Regulatory Permit and (ii) each third party that is a manufacturer, contractor or agent for the Group Companies is in compliance in all material respects with all Regulatory Permits required by all Public Health Laws insofar as they reasonably pertain to the Company Products.
- (b) As of the date of this Agreement, there is (and since December 31, 2018 there has been) no material Proceeding against any Group Company related to compliance with Public Health Laws, and to the knowledge of the Company,

no such Proceedings are threatened in writing. To the Company's knowledge, the Group Companies do not have any Liability for failure to comply with any Public Health Laws.

(c) All Company Products are being developed, tested, investigated, manufactured, prepared, packaged, labeled and distributed in compliance in all material respects with the Public Health Laws or any comparable Law.

(d) To the knowledge of the Company, the clinical trials conducted by or on behalf of the Group Companies are being and have been conducted in all material respects in accordance with all applicable clinical trial protocols, informed consents and applicable requirements and Laws of the FDA and any comparable Governmental Entity.

(e) To the knowledge of the Company, as of the date of this Agreement, no Group Company, nor any clinical trial site conducting a clinical trial sponsored by any Group Company, has undergone any inspection related to any Company Product or any clinical trial sponsored by any Group Company, or any other Governmental Entity investigation.

(f) Since the incorporation of the Company, the Group Companies have not distributed any Company Products that were upon their shipment by any Group Company adulterated or misbranded in violation of 21 U.S.C. § 331 or any other Governmental Entity's jurisdiction. No Company Products have been seized, withdrawn, recalled, detained or subject to a suspension (other than in the ordinary course of business) of research, manufacturing or distribution, and, to the knowledge of the Company, there are no facts or circumstances reasonably likely to cause (i) the seizure, denial, withdrawal, recall, or detention, or public health notification or safety alert relating to any Company Product or (ii) a termination or suspension of research, clinical investigation, manufacturing or distributing of any Company Product, in either case, except as would not have a Company Material Adverse Effect. As of the date of this Agreement, there are no Proceedings in the United States or any other jurisdiction seeking the withdrawal, recall, revocation, suspension, import detention or seizure of any Company Product are pending or, to the Company's knowledge, threatened in writing against the Group Companies, except as is not and would not reasonably be expected to be, individually or in the aggregate, material to the Group Companies, taken as a whole.

(g) Neither the Group Companies nor, to the knowledge of the Company, any of its directors, managers, officers, employees, individual independent contractors, including clinical trial investigators, coordinators, or monitors (i) have been excluded or debarred from any federal healthcare program (including Medicare or Medicaid) and/or any other healthcare program or reimbursement agreement or (ii) have received notice from the FDA, any other Governmental Entity and/or any health insurance institution with respect to debarment, disqualification or restriction. None of the Group Companies nor, to the knowledge of the Company, any of their officers, directors, employees, agents or contractors have been convicted of any crime or engaged in any conduct for which (A) debarment is mandated or permitted by 21 U.S.C. § 335a or (B) such Person could be excluded from participating in the federal healthcare programs under Section 1128 of the Social Security Act or any similar law. No officer and, to the knowledge of the Company, no other employee or agent of any Group Company has (x) made any untrue statement of material fact or fraudulent statement to the FDA or any other Governmental Entity; (y) failed to disclose a material fact required to be disclosed to the FDA or any other Governmental Entity; or (z) committed an act, made a statement or failed to make a statement that would reasonably be expected to provide the basis for the FDA or any other Governmental Entity to refuse to grant a Regulatory Permit for any Company Product.

(h) There have been no Proceedings, and no such Proceedings are pending or, to the Company's knowledge, threatened in writing against any Group Company related to product liability for the Company Products or the Group Company's services.

Section 3.24 Investigation; No Other Representations.

(a) The Company, on its own behalf and on behalf of its Representatives, acknowledges, represents, warrants and agrees that (i) it has conducted its own independent review and analysis of, and, based thereon, has formed an independent judgment concerning, the business, assets, condition, operations and prospects of, the ARYA Parties and (ii) it has been furnished with or given access to such documents and information about the ARYA Parties and their respective businesses and operations as it and its Representatives have deemed necessary to enable it to make an informed decision with respect to the execution, delivery and performance of this Agreement, the Ancillary Documents and the transactions contemplated hereby and thereby.

(b) In entering into this Agreement and the Ancillary Documents to which it is or will be a party, the Company has relied solely on its own investigation and analysis and the representations and warranties expressly set forth in Article 4 and in the Ancillary Documents to which it is or will be a party and no other representations or warranties

of any ARYA Party, any ARYA Non-Party Affiliate or any other Person, either express or implied, and the Company, on its own behalf and on behalf of its Representatives, acknowledges, represents, warrants and agrees that, except for the representations and warranties expressly set forth in Article 4 and in the Ancillary Documents to which it is or will be a party, none of the ARYA Parties, any ARYA Non-Party Affiliate or any other Person makes or has made any representation or warranty, either express or implied, in connection with or related to this Agreement, the Ancillary Documents or the transactions contemplated hereby or thereby.

Section 3.25 EXCLUSIVITY OF REPRESENTATIONS AND WARRANTIES. NOTWITHSTANDING THE DELIVERY OR DISCLOSURE TO ANY ARYA PARTY OR ANY OF THEIR RESPECTIVE REPRESENTATIVES OF ANY DOCUMENTATION OR OTHER INFORMATION (INCLUDING ANY FINANCIAL PROJECTIONS OR OTHER SUPPLEMENTAL DATA), EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 3 OR THE ANCILLARY DOCUMENTS, NONE OF THE COMPANY, ANY COMPANY NON-PARTY AFFILIATE OR ANY OTHER PERSON MAKES, AND THE COMPANY EXPRESSLY DISCLAIMS, ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, IN CONNECTION WITH THIS AGREEMENT, THE ANCILLARY DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY, INCLUDING AS TO THE MATERIALS RELATING TO THE BUSINESS AND AFFAIRS OR HOLDINGS OF THE GROUP COMPANIES THAT HAVE BEEN MADE AVAILABLE TO ANY ARYA PARTY OR ANY OF THEIR REPRESENTATIVES OR IN ANY PRESENTATION OF THE BUSINESS AND AFFAIRS OF THE GROUP COMPANIES BY THE MANAGEMENT OF THE COMPANY OR OTHERS IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED HEREBY OR BY THE ANCILLARY DOCUMENTS, AND NO STATEMENT CONTAINED IN ANY OF SUCH MATERIALS OR MADE IN ANY SUCH PRESENTATION SHALL BE DEEMED A REPRESENTATION OR WARRANTY HEREUNDER OR OTHERWISE OR DEEMED TO BE RELIED UPON BY ANY ARYA PARTY OR ANY ARYA NON-PARTY AFFILIATE IN EXECUTING, DELIVERING AND PERFORMING THIS AGREEMENT, THE ANCILLARY DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH IN ARTICLE 3 OR THE ANCILLARY DOCUMENTS, IT IS UNDERSTOOD THAT ANY COST ESTIMATES, PROJECTIONS OR OTHER PREDICTIONS, ANY DATA, ANY FINANCIAL INFORMATION OR ANY MEMORANDA OR OFFERING MATERIALS OR PRESENTATIONS, INCLUDING ANY OFFERING MEMORANDUM OR SIMILAR MATERIALS MADE AVAILABLE BY ANY GROUP COMPANY ARE NOT AND SHALL NOT BE DEEMED TO BE OR TO INCLUDE REPRESENTATIONS OR WARRANTIES OF THE COMPANY, ANY COMPANY NON-PARTY AFFILIATE OR ANY OTHER PERSON, AND ARE NOT AND SHALL NOT BE DEEMED TO BE RELIED UPON BY ANY ARYA PARTY OR ANY ARYA NON-PARTY AFFILIATE IN EXECUTING, DELIVERING OR PERFORMING THIS AGREEMENT, THE ANCILLARY DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

ARTICLE 4

REPRESENTATIONS AND WARRANTIES RELATING TO THE ARYA PARTIES

(a) Subject to Section 8.8, except as set forth on the ARYA Disclosure Schedules, or (b) except as set forth in any ARYA SEC Reports (excluding any disclosures in any “risk factors” section that do not constitute statements of fact, disclosures in any forward-looking statements disclaimers and other disclosures that are generally cautionary, predictive or forward-looking in nature), each ARYA Party hereby represents and warrants to the Company as follows:

Section 4.1 Organization and Qualification. Each ARYA Party is an exempted company, corporation, limited liability company or other applicable business entity duly organized, incorporated or formed, as applicable, validly existing and in good standing (or the equivalent thereof, if applicable, in each case, with respect to the jurisdictions that recognize the concept of good standing or any equivalent thereof) under the Laws of its jurisdiction of organization, incorporation or formation (as applicable).

Section 4.2 Authority. Each ARYA Party has the requisite exempted company, corporate, limited liability company or other similar power and authority to execute and deliver this Agreement and each of the Ancillary Documents to which it is or will be a party and to consummate the transactions contemplated hereby and thereby. Subject to the

receipt of the ARYA Shareholder Approval and the approvals and consents to be obtained by Cassidy Merger Sub pursuant to Section 5.9, the execution and delivery of this Agreement, the Ancillary Documents to which an ARYA Party is or will be a party and the consummation of the transactions contemplated hereby and thereby have been (or, in the case of any Ancillary Document entered into after the date of this Agreement, will be upon execution thereof) duly authorized by all necessary exempted company, corporate, limited liability company or other similar action on the part of such ARYA Party. This Agreement has been and each Ancillary Document to which an ARYA Party is or will be a party will be, upon execution thereof, duly and validly executed and delivered by such ARYA Party and constitutes or will constitute, upon execution thereof, as applicable, a valid, legal and binding agreement of such ARYA Party (assuming this Agreement has been and the Ancillary Documents to which such ARYA Party is or will be a party are or will be, upon execution thereof, as applicable, duly authorized, executed and delivered by the other Persons party hereto or thereto, as applicable), enforceable against such ARYA Party in accordance with their terms (subject to applicable bankruptcy, insolvency, reorganization, moratorium or other Laws affecting generally the enforcement of creditors' rights and subject to general principles of equity).

Section 4.3 Consents and Requisite Governmental Approvals; No Violations.

(a) No consent, approval or authorization of, or designation, declaration or filing with, any Governmental Entity is required on the part of an ARYA Party with respect to such ARYA Party's execution, delivery or performance of its obligations under this Agreement or the Ancillary Documents to which it is or will be party or the consummation of the transactions contemplated by this Agreement or by the Ancillary Documents, except for (i) compliance with and filings under the HSR Act, (ii) the filing with the SEC of (A) the Registration Statement / Proxy Statement and the declaration of the effectiveness thereof by the SEC and (B) such reports under Section 13(a) or 15(d) of the Exchange Act as may be required in connection with this Agreement, the Ancillary Documents or the transactions contemplated hereby or thereby, (iii) such filings with and approvals of Nasdaq to permit the ARYA Shares to be issued in connection with the transactions contemplated by this Agreement and the other Ancillary Documents to be listed on Nasdaq, (iv) such filings and approvals required in connection with the Domestication, (v) filing of the Certificate of Merger, (vi) the approvals and consents to be obtained by Cassidy Merger Sub pursuant to Section 5.9, (vii) the ARYA Shareholder Approval or (viii) any other consents, approvals, authorizations, designations, declarations, waivers or filings, the absence of which would not have an ARYA Material Adverse Effect.

(b) Neither the execution, delivery or performance by an ARYA Party of this Agreement nor the Ancillary Documents to which an ARYA Party is or will be a party nor the consummation by an ARYA Party of the transactions contemplated hereby or thereby will, directly or indirectly (with or without due notice or lapse of time or both) (i) result in any breach of any provision of the Governing Documents of an ARYA Party, (ii) result in a violation or breach of, or constitute a default or give rise to any right of termination, cancellation, amendment, modification, suspension, revocation or acceleration under, any of the terms, conditions or provisions of any Contract to which an ARYA Party is a party, (iii) violate, or constitute a breach under, any Order or applicable Law to which any such ARYA Party or any of its properties or assets are bound or (iv) result in the creation of any Lien upon any of the assets or properties (other than any Permitted Liens) of an ARYA Party, except in the case of clauses (ii) through (iv) above, as would not have an ARYA Material Adverse Effect.

Section 4.4 Brokers. Except for fees (including the amounts due and payable assuming the Closing occurs) set forth on Section 4.4 of the ARYA Disclosure Schedules (which fees shall be the sole responsibility of the ARYA, except as otherwise provided in Section 8.6), no broker, finder, investment banker or other Person is entitled to any brokerage fee, finders' fee or other commission in connection with the transactions contemplated by this Agreement based upon arrangements made by or on behalf of ARYA for which ARYA has any obligation.

Section 4.5 Information Supplied. None of the information supplied or to be supplied by or on behalf of either ARYA Party expressly for inclusion or incorporation by reference prior to the Closing in the Registration Statement / Proxy Statement will, when the Registration Statement / Proxy Statement is declared effective or when the Registration Statement / Proxy Statement is mailed to the Pre-Closing ARYA Holders or at the time of the ARYA Shareholders Meeting, and in the case of any amendment thereto, at the time of such amendment, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not misleading.

Section 4.6 Capitalization of the ARYA Parties.

(a) Section 4.6(a) of the ARYA Disclosure Schedules sets forth a true and complete statement of the number and class or series (as applicable) of the issued and outstanding ARYA Shares and the ARYA Warrants prior to consummation of the Domestication. All outstanding Equity Securities of ARYA (except to the extent such concepts are not applicable under the applicable Law of ARYA's jurisdiction of organization, incorporation or formation, as applicable, or other applicable Law) prior to the consummation of the Domestication have been duly authorized and validly issued and are fully paid and non-assessable. Such Equity Securities (i) were not issued in violation of the Governing Documents of ARYA and (ii) are not subject to any preemptive rights, call option, right of first refusal, subscription rights, transfer restrictions or similar rights of any Person (other than transfer restrictions under applicable Securities Laws or under the Governing Documents of ARYA) and were not issued in violation of any preemptive rights, call option, right of first refusal, subscription rights, transfer restrictions or similar rights of any Person. Except for the ARYA Shares and ARYA Warrants set forth on Section 4.6(a) of the ARYA Disclosure Schedules (taking into account, for the avoidance of doubt, any changes or adjustments to the ARYA Shares and the ARYA Warrants as a result of, or to give effect to, the Domestication and assuming that no ARYA Shareholder Redemptions are effected), immediately prior to Closing, there shall be no other outstanding Equity Securities of ARYA.

(b) On the Closing Date after the time at which the Effective Time occurs and the closings under all of the Subscription Agreements have occurred, (i) the authorized share capital of ARYA will consist of 500,000,000 ARYA Shares and 10,000,000 shares of preferred stock, par value \$0.0001 per share, of which 138,691,565 ARYA Shares will be issued and outstanding (assuming that no ARYA Shareholder Redemptions are effected, all Other Investors and the Bain Shareholder have collectively funded the PIPE Financing (including, in the case of the Bain Shareholder, the Pre-Closing Series A Purchase Price Amount) in full, the Adjusted Transaction Share Consideration that is allocated to the Company Shares and the Vested Company RSU Awards is an amount equal to 87,505,065, all ARYA Shares issuable as a result of, or in connection with, the Merger have been issued out of the Exchange Fund by the Exchange Agent, none of the Rollover Options or Rollover RSU Awards are exercised or settled, as applicable, for ARYA Shares on the Closing Date and no Equity Securities are issued or granted after the Effective Time (including, for the avoidance of doubt, any Equity Securities granted under or issued in respect of the ARYA Incentive Equity Plan (or any awards thereunder) on the Closing Date)) and no shares of preferred stock or any other Equity Securities of ARYA will be issued and outstanding ((A) assuming that the Allocation Schedule is true and correct in all respects and otherwise in accordance with the requirements of Section 2.3 and the Company has complied in all respects with Section 2.4(e) and Section 5.1(b)(iv) and (B) other than the ARYA Warrants set forth on Section 4.6(a) of the ARYA Disclosure Schedules (taking into account, for the avoidance of doubt, any changes or adjustments to the ARYA Warrants as a result of, or to give effect to, the Domestication), the Rollover Options, the Rollover RSU Awards, any Equity Securities issued or granted in accordance with Section 5.10 or otherwise issued or granted with the prior written consent of the Company or any Equity Securities issued or granted after the Effective Time (including, for the avoidance of doubt, any Equity Securities granted under or issued in respect of the ARYA Incentive Equity Plan (or any awards thereunder) on the Closing Date)), and (ii) all of the issued and outstanding ARYA Shares (A) will be duly authorized, validly issued, fully paid and nonassessable, (B) will have been issued in compliance in all material respects with applicable Law and (C) will not have been issued in breach or violation of any preemptive rights or Contract to which ARYA is a party or bound.

(c) Except as expressly contemplated by this Agreement, the Ancillary Documents or the transactions contemplated hereby or thereby or as otherwise mutually agreed to by the Company and ARYA, there are no outstanding (A) equity appreciation, phantom equity or profit participation rights or (B) options, restricted stock, phantom stock, warrants, purchase rights, subscription rights, conversion rights, exchange rights, calls, puts, rights of first refusal or first offer or other Contracts that could require ARYA, and, except as expressly contemplated by this Agreement, the Ancillary Documents or the transactions contemplated hereby or thereby or as otherwise mutually agreed in writing by the Company and ARYA, there is no obligation of ARYA, to issue, sell or otherwise cause to become outstanding or to acquire, repurchase or redeem any Equity Securities or securities convertible into or exchangeable for Equity Securities of ARYA.

(d) The Equity Securities of Cassidy Merger Sub outstanding as of the date of this Agreement (i) have been duly authorized and validly issued and are fully paid and nonassessable, (ii) were issued in compliance in all material respects with applicable Law, and (iii) were not issued in breach or violation of any preemptive rights or Contract to which Cassidy Merger Sub is a party or bound. All of the outstanding Equity Securities of Cassidy Merger Sub are owned directly by ARYA free and clear of all Liens (other than transfer restrictions under applicable Securities

Law). As of the date of this Agreement, ARYA has no Subsidiaries other than Cassidy Merger Sub and does not own, directly or indirectly, any Equity Securities in any Person other than Cassidy Merger Sub.

Section 4.7 SEC Filings. ARYA has timely filed or furnished all statements, forms, reports and documents required to be filed or furnished by it prior to the date of this Agreement with the SEC pursuant to Federal Securities Laws since its initial public offering (collectively, and together with any exhibits and schedules thereto and other information incorporated therein, and as they have been supplemented, modified or amended since the time of filing, the “ARYA SEC Reports”), and, as of the Closing, will have filed or furnished all other statements, forms, reports and other documents required to be filed or furnished by it subsequent to the date of this Agreement with the SEC pursuant to Federal Securities Laws through the Closing (collectively, and together with any exhibits and schedules thereto and other information incorporated therein, and as they have been supplemented, modified or amended since the time of filing, but excluding the Registration Statement / Proxy Statement, the “Additional ARYA SEC Reports”). Each of the ARYA SEC Reports, as of their respective dates of filing, and as of the date of any amendment or filing that superseded the initial filing, complied and each of the Additional ARYA SEC Reports, as of their respective dates of filing, and as of the date of any amendment or filing that superseded the initial filing, will comply, in all material respects with the applicable requirements of the Federal Securities Laws (including, as applicable, the Sarbanes-Oxley Act and any rules and regulations promulgated thereunder) applicable to the ARYA SEC Reports or the Additional ARYA SEC Reports (for purposes of the Additional ARYA SEC Reports, assuming that the representation and warranty set forth in Section 3.22 is true and correct in all respects with respect to all information supplied by or on behalf of Group Companies expressly for inclusion or incorporation by reference therein). As of their respective dates of filing, the ARYA SEC Reports did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made or will be made, as applicable, not misleading (for purposes of the Additional SEC Reports, assuming that the representation and warranty set forth in Section 3.22 is true and correct in all respects with respect to all information supplied by or on behalf of Group Companies expressly for inclusion or incorporation by reference therein). As of the date of this Agreement, there are no outstanding or unresolved comments in comment letters received from the SEC with respect to the ARYA SEC Reports.

Section 4.8 Trust Account. As of the date of this Agreement, ARYA has an amount in cash in the Trust Account equal to at least \$149,491,279.07. The funds held in the Trust Account are (a) invested in United States “government securities” within the meaning of Section 2(a)(16) of the Investment Company Act, having a maturity of 180 days or less or in money market funds meeting certain conditions under Rule 2a-7 promulgated under the Investment Company Act which invest only in direct U.S. government treasury obligations and (b) held in trust pursuant to that certain Investment Management Trust Agreement, dated as of June 9, 2020 (the “Trust Agreement”), between ARYA and Continental, as trustee (the “Trustee”). There are no separate agreements, side letters or other agreements or understandings (whether written or unwritten, express or implied) that would cause the description of the Trust Agreement in the ARYA SEC Reports to be inaccurate in any material respect or, to ARYA’s knowledge, that would entitle any Person to any portion of the funds in the Trust Account (other than (i) in respect of deferred underwriting commissions or Taxes, (ii) the Pre-Closing ARYA Holders who shall have elected to redeem their ARYA Class A Shares pursuant to the Governing Documents of ARYA or (iii) if ARYA fails to complete a business combination within the allotted time period set forth in the Governing Documents of ARYA and liquidates the Trust Account, subject to the terms of the Trust Agreement, ARYA (in limited amounts to permit ARYA to pay the expenses of the Trust Account’s liquidation, dissolution and winding up of ARYA) and then the Pre-Closing ARYA Holders). Prior to the Closing, none of the funds held in the Trust Account are permitted to be released, except in the circumstances described in the Governing Documents of ARYA and the Trust Agreement. ARYA has performed all material obligations required to be performed by it to date under, and is not in material default or delinquent in performance or any other respect (claimed or actual) in connection with the Trust Agreement, and, to the knowledge of ARYA, no event has occurred which, with due notice or lapse of time or both, would constitute such a material default thereunder. As of the date of this Agreement, there are no claims or proceedings pending with respect to the Trust Account. Since June 9, 2020, ARYA has not released any money from the Trust Account (other than interest income earned on the funds held in the Trust Account as permitted by the Trust Agreement). Upon the consummation of the transactions contemplated hereby, including the distribution of assets from the Trust Account (A) in respect of deferred underwriting commissions or Taxes or (B) to the Pre-Closing ARYA Holders who have elected to redeem their ARYA Class A Shares pursuant to the Governing Documents of ARYA, each in accordance with the terms of and as set forth in the Trust Agreement, ARYA shall have no further obligation under

either the Trust Agreement or the Governing Documents of ARYA to liquidate or distribute any assets held in the Trust Account, and the Trust Agreement shall terminate in accordance with its terms.

Section 4.9 Transactions with Affiliates. Section 4.9 of the ARYA Disclosure Schedules sets forth all Contracts between (a) ARYA, on the one hand, and (b) any officer, director, employee, partner, member, manager, direct or indirect equityholder (including the Sponsor) or Affiliate of either ARYA or the Sponsor, on the other hand (each Person identified in this clause (b), an “ARYA Related Party”), other than (i) Contracts with respect to an ARYA Related Party’s employment with, or the provision of services to, ARYA entered into in the ordinary course of business (including benefit plans, indemnification arrangements and other ordinary course compensation), (ii) Contracts with respect to a Pre-Closing ARYA Holder’s or a holder of ARYA Warrants’ status as a holder of ARYA Shares or ARYA Warrants, as applicable, and (iii) Contracts entered into after the date of this Agreement that are either permitted pursuant to Section 5.10 or entered into in accordance with Section 5.10. No ARYA Related Party (A) owns any interest in any material asset used in the business of ARYA, (B) possesses, directly or indirectly, any material financial interest in, or is a director or executive officer of, any Person which is a material client, supplier, customer, lessor or lessee of ARYA or (C) owes any material amount to, or is owed material any amount by, ARYA. All Contracts, arrangements, understandings, interests and other matters that are required to be disclosed pursuant to this Section 4.9 are referred to herein as “ARYA Related Party Transactions”.

Section 4.10 Litigation. As of the date of this Agreement, there is (and since its organization, incorporation or formation, as applicable, there has been) no Proceeding pending or, to ARYA’s knowledge, threatened against or involving any ARYA Party that, if adversely decided or resolved, would be material to the ARYA Parties, taken as a whole. None of the ARYA Parties nor any of their respective properties or assets is subject to any material Order. As of the date of this Agreement, there are no material Proceedings by any ARYA Party pending against any other Person.

Section 4.11 Compliance with Applicable Law. Each ARYA Party is (and since its organization, incorporation or formation, as applicable, has been) in compliance with all applicable Laws, except as would not have an ARYA Material Adverse Effect.

Section 4.12 Business Activities.

(a) Since its incorporation, ARYA has not conducted any business activities other than activities (i) in connection with or incident or related to its incorporation or continuing corporate (or similar) existence, (ii) directed toward the accomplishment of a business combination, including those incident or related to or incurred in connection with the negotiation, preparation or execution of this Agreement or any Ancillary Documents, the performance of its covenants or agreements in this Agreement or any Ancillary Document or the consummation of the transactions contemplated hereby or thereby or (iii) those that are administrative, ministerial or otherwise immaterial in nature. Except as set forth in ARYA’s Governing Documents, there is no Contract binding upon any ARYA Party or to which any ARYA Party is a party which has or would reasonably be expected to have the effect of prohibiting or materially impairing any business practice of it or its Subsidiaries, any acquisition of property by it or its Subsidiaries or the conduct of business by it or its Subsidiaries (including, in each case, following the Closing).

(b) Cassidy Merger Sub was organized solely for the purpose of entering into this Agreement, the Ancillary Documents and consummating the transactions contemplated hereby and thereby and has not engaged in any activities or business, other than those incident or related to or incurred in connection with its organization, incorporation or formation, as applicable, or continuing corporate (or similar) existence or the negotiation, preparation or execution of this Agreement or any Ancillary Documents, the performance of its covenants or agreements in this Agreement or any Ancillary Document or the consummation of the transactions contemplated hereby or thereby.

Section 4.13 Internal Controls; Listing; Financial Statements.

(a) Except as is not required in reliance on exemptions from various reporting requirements by virtue of ARYA’s status as an “emerging growth company” within the meaning of the Securities Act, as modified by the JOBS Act, or “smaller reporting company” within the meaning of the Exchange Act, since its initial public offering, (i) ARYA has established and maintained a system of internal controls over financial reporting (as defined in Rule 13a-15 and Rule 15d-15 under the Exchange Act) sufficient to provide reasonable assurance regarding the reliability of ARYA’s

financial reporting and the preparation of ARYA's financial statements for external purposes in accordance with GAAP and (ii) ARYA has established and maintained disclosure controls and procedures (as defined in Rule 13a-15 and Rule 15d-15 under the Exchange Act) designed to ensure that material information relating to ARYA is made known to ARYA's principal executive officer and principal financial officer by others within ARYA.

(b) ARYA has not taken any action prohibited by Section 402 of the Sarbanes-Oxley Act.

(c) Since its initial public offering, ARYA has complied in all material respects with all applicable listing and corporate governance rules and regulations of Nasdaq. The classes of securities representing issued and outstanding ARYA Class A Shares are registered pursuant to Section 12(b) of the Exchange Act and are listed for trading on Nasdaq. As of the date of this Agreement, there is no Proceeding pending or, to the knowledge of ARYA, threatened against ARYA by Nasdaq or the SEC with respect to any intention by such entity to deregister ARYA Class A Shares or prohibit or terminate the listing of ARYA Class A Shares on Nasdaq. ARYA has not taken any action that is designed to terminate the registration of ARYA Class A Shares under the Exchange Act.

(d) The ARYA SEC Reports contain true and complete copies of the applicable ARYA Financial Statements. The ARYA Financial Statements (i) fairly present in all material respects the financial position of ARYA as at the respective dates thereof, and the results of its operations, shareholders' equity and cash flows for the respective periods then ended (subject, in the case of any unaudited interim financial statements, to normal year-end audit adjustments (none of which is expected to be material) and the absence of footnotes), (ii) were prepared in conformity with GAAP applied on a consistent basis during the periods involved (except, in the case of any audited financial statements, as may be indicated in the notes thereto and subject, in the case of any unaudited financial statements, to normal year-end audit adjustments (none of which is expected to be material) and the absence of footnotes), (iii) in the case of the audited ARYA Financial Statements, were audited in accordance with the standards of the PCAOB and (iv) comply in all material respects with the applicable accounting requirements and with the rules and regulations of the SEC, the Exchange Act and the Securities Act in effect as of the respective dates thereof (including Regulation S-X or Regulation S-K, as applicable).

(e) ARYA has established and maintains systems of internal accounting controls that are designed to provide, in all material respects, reasonable assurance that (i) all transactions are executed in accordance with management's authorization and (ii) all transactions are recorded as necessary to permit preparation of proper and accurate financial statements in accordance with GAAP and to maintain accountability for ARYA's and its Subsidiaries' assets. ARYA maintains and, for all periods covered by the ARYA Financial Statements, has maintained books and records of ARYA in the ordinary course of business that are accurate and complete and reflect the revenues, expenses, assets and liabilities of ARYA in all material respects

(f) Since its incorporation, ARYA has not received any written complaint, allegation, assertion or claim that there is (i) a "significant deficiency" in the internal controls over financial reporting of ARYA to ARYA's knowledge, (ii) a "material weakness" in the internal controls over financial reporting of ARYA to ARYA's knowledge or (iii) fraud, whether or not material, that involves management or other employees of ARYA who have a significant role in the internal controls over financial reporting of ARYA.

Section 4.14 No Undisclosed Liabilities. Except for the Liabilities (a) set forth in Section 4.14 of the ARYA Disclosure Schedules, (b) incurred in connection with the negotiation, preparation or execution of this Agreement or any Ancillary Documents, the performance of its covenants or agreements in this Agreement or any Ancillary Document or the consummation of the transactions contemplated hereby or thereby (it being understood and agreed that the expected third parties that are, as of the date hereof, entitled to fees, expenses or other payments in connection with the matters described in this clause (b) shall be set forth on Section 4.14 of the ARYA Disclosure Schedules), (c) that are incurred in connection with or incident or related to an ARYA Party's organization, incorporation or formation, as applicable, or continuing corporate (or similar) existence, in each case, which are immaterial in nature, (d) that are incurred in connection with activities that are administrative or ministerial, in each case, which are immaterial in nature, (e) that are either permitted pursuant to Section 5.10(d) or incurred in accordance with Section 5.10(d) (for the avoidance of doubt, in each case, with the written consent of the Company) or (f) set forth or disclosed in the ARYA Financial Statements included in the ARYA SEC Reports, none of the ARYA Parties has any Liabilities of the type required to be set forth on a balance sheet in accordance with GAAP.

Section 4.15 Tax Matters.

- (a) ARYA has prepared and filed all material Tax Returns required to have been filed by it, all such Tax Returns are true and complete in all material respects and prepared in compliance in all material respects with all applicable Laws and Orders, and ARYA has paid all material Taxes required to have been paid or deposited by it regardless of whether shown on a Tax Return.
- (b) ARYA has timely withheld and paid to the appropriate Tax Authority all material amounts required to have been withheld and paid in connection with amounts paid or owing to any employee, individual independent contractor, other service providers, equity interest holder or other third-party.
- (c) ARYA is not currently the subject of a Tax audit or examination with respect to material taxes. ARYA has not been informed in writing of the commencement or anticipated commencement of any Tax audit or examination that has not been resolved or completed, in each case with respect to material Taxes.
- (d) ARYA has not consented to extend or waive the time in which any material Tax may be assessed or collected by any Tax Authority, other than any such extensions or waivers that are no longer in effect or that were extensions of time to file Tax Returns obtained in the ordinary course of business, in each case with respect to material Taxes.
- (e) No “closing agreement” as described in Section 7121 of the Code (or any corresponding or similar provision of state, local or non-U.S. income Tax Law), private letter rulings, technical advice memoranda or similar agreements or rulings have been entered into or issued by any Tax Authority with respect to any ARYA Party which agreement or ruling would be effective after the Closing Date.
- (f) None of the ARYA Parties is and none of the ARYA Parties has been a party to any “listed transaction” as defined in Section 6707A of the Code and Treasury Regulations Section 1.6011-4 (or any corresponding or similar provision of state, local or non-U.S. income Tax Law).
- (g) Each ARYA Party is tax resident only in its jurisdiction of organization, incorporation or formation, as applicable.
- (h) None of the ARYA Parties has taken or agreed to take any action not contemplated by this Agreement and/or any Ancillary Documents that could reasonably be expected to prevent the Merger or the Domestication from qualifying for the Intended Tax Treatment. To the knowledge of ARYA, no facts or circumstances exist, other than any facts or circumstances to the extent that such facts or circumstances exist or arise as a result of or related to any act or omission occurring after the signing date by a Group Company or a Company Shareholder or any of their respective Affiliates in each case not contemplated by this Agreement and/or any of the Ancillary Documents, that could reasonably be expected to prevent the Merger (or, if applicable, the Alternative Transaction Structure) or the Domestication from qualifying for the Intended Tax Treatment.

Section 4.16 Investigation; No Other Representations.

- (a) Each ARYA Party, on its own behalf and on behalf of its Representatives, acknowledges, represents, warrants and agrees that (i) it has conducted its own independent review and analysis of, and, based thereon, has formed an independent judgment concerning, the business, assets, condition, operations and prospects, of the Group Companies and (ii) it has been furnished with or given access to such documents and information about the Group Companies and their respective businesses and operations as it and its Representatives have deemed necessary to enable it to make an informed decision with respect to the execution, delivery and performance of this Agreement, the Ancillary Documents and the transactions contemplated hereby and thereby.
- (b) In entering into this Agreement and the Ancillary Documents to which it is or will be a party, each ARYA Party has relied solely on its own investigation and analysis and the representations and warranties expressly set forth in Article 3 and in the Ancillary Documents to which it is or will be a party and no other representations or warranties of the Company, any Company Non-Party Affiliate or any other Person, either express or implied, and each ARYA Party, on its own behalf and on behalf of its Representatives, acknowledges, represents, warrants and agrees that, except for the representations and warranties expressly set forth in Article 3 and in the Ancillary Documents to which it is or will be a party, none of the Company, any Company Non-Party Affiliate or any other Person makes or has made any representation or warranty, either express or implied, in connection with or related to this Agreement, the Ancillary Documents or the transactions contemplated hereby or thereby.

Section 4.17 Compliance with International Trade & Anti-Corruption Laws.

(a) Since ARYA's incorporation, neither ARYA nor, to ARYA's knowledge, any of their Representatives, or any other Persons acting for or on behalf of any of the foregoing, is or has been, (i) a Person named on any Sanctions and Export Control Laws-related list of designated Persons maintained by a Governmental Entity; (ii) located, organized or resident in a country or territory which is itself the subject of or target of any Sanctions and Export Control Laws; (iii) an entity owned, directly or indirectly, by one or more Persons described in clause (i) or (ii); or (iv) otherwise engaging in dealings with or for the benefit of any Person described in clauses (i) - (iii) or any country or territory which is or has, since ARYA's incorporation, been the subject of or target of any Sanctions and Export Control Laws (at the time of this Agreement, the Crimea region of Ukraine, Cuba, Iran, North Korea, Venezuela, Sudan and Syria).

(b) Since ARYA's incorporation, neither ARYA nor, to ARYA's knowledge, any of their Representatives, or any other Persons acting for or on behalf of any of the foregoing has (i) made, offered, promised, paid or received any unlawful bribes, kickbacks or other similar payments to or from any Person, (ii) made or paid any contributions, directly or indirectly, to a domestic or foreign political party or candidate or (iii) otherwise made, offered, received, authorized, promised or paid any improper payment under any Anti-Corruption Laws.

Section 4.18 EXCLUSIVITY OF REPRESENTATIONS AND WARRANTIES. NOTWITHSTANDING THE DELIVERY OR DISCLOSURE TO THE COMPANY OR ANY OF ITS REPRESENTATIVES OF ANY DOCUMENTATION OR OTHER INFORMATION (INCLUDING ANY FINANCIAL PROJECTIONS OR OTHER SUPPLEMENTAL DATA), EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 4 AND THE ANCILLARY DOCUMENTS, NONE OF THE ARYA PARTIES, ANY ARYA NON-PARTY AFFILIATE OR ANY OTHER PERSON MAKES, AND EACH ARYA PARTY EXPRESSLY DISCLAIMS, ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, IN CONNECTION WITH THIS AGREEMENT, THE ANCILLARY DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY, INCLUDING AS TO THE MATERIALS RELATING TO THE BUSINESS AND AFFAIRS OR HOLDINGS OF ANY ARYA PARTY THAT HAVE BEEN MADE AVAILABLE TO THE COMPANY OR ANY OF ITS REPRESENTATIVES OR IN ANY PRESENTATION OF THE BUSINESS AND AFFAIRS OF ANY ARYA PARTY BY OR ON BEHALF OF THE MANAGEMENT OF SUCH ARYA PARTY OR OTHERS IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED HEREBY OR BY THE ANCILLARY DOCUMENTS, AND NO STATEMENT CONTAINED IN ANY OF SUCH MATERIALS OR MADE IN ANY SUCH PRESENTATION SHALL BE DEEMED A REPRESENTATION OR WARRANTY HEREUNDER OR OTHERWISE OR DEEMED TO BE RELIED UPON BY THE COMPANY OR ANY COMPANY NON-PARTY AFFILIATE IN EXECUTING, DELIVERING AND PERFORMING THIS AGREEMENT, THE ANCILLARY DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH IN THIS ARTICLE 4 OR THE ANCILLARY DOCUMENTS, IT IS UNDERSTOOD THAT ANY COST ESTIMATES, PROJECTIONS OR OTHER PREDICTIONS, ANY DATA, ANY FINANCIAL INFORMATION OR ANY MEMORANDA OR OFFERING MATERIALS OR PRESENTATIONS, INCLUDING, BUT NOT LIMITED TO, ANY OFFERING MEMORANDUM OR SIMILAR MATERIALS MADE AVAILABLE BY OR ON BEHALF OF ANY ARYA PARTY ARE NOT AND SHALL NOT BE DEEMED TO BE OR TO INCLUDE REPRESENTATIONS OR WARRANTIES OF ANY ARYA PARTY, ANY ARYA NON-PARTY AFFILIATE OR ANY OTHER PERSON, AND ARE NOT AND SHALL NOT BE DEEMED TO BE RELIED UPON BY THE COMPANY OR ANY COMPANY NON-PARTY AFFILIATE IN EXECUTING, DELIVERING OR PERFORMING THIS AGREEMENT, THE ANCILLARY DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

ARTICLE 5 COVENANTS

Section 5.1 Conduct of Business of the Company.

(a) From and after the date of this Agreement until the earlier of the Closing or the termination of this Agreement in accordance with its terms, the Company shall, and the Company shall cause its Subsidiaries to, except as expressly contemplated by this Agreement or any Ancillary Document, as required by applicable Law, as set forth on Section

5.1(a) of the Company Disclosure Schedules, or as consented to in writing by ARYA (it being agreed that any request for a consent shall not be unreasonably withheld, conditioned or delayed), (i) operate the business of the Group Companies in the ordinary course in all material respects and (ii) use commercially reasonable efforts to maintain and preserve intact in all material respects the business organization, assets, properties and material business relations of the Group Companies, taken as a whole.

(b) Without limiting the generality of the foregoing, from and after the date of this Agreement until the earlier of the Closing or the termination of this Agreement in accordance with its terms, the Company shall, and the Company shall cause its Subsidiaries to, except as expressly contemplated by this Agreement or any Ancillary Document, as required by applicable Law, as set forth on Section 5.1(b) of the Company Disclosure Schedules or as consented to in writing by ARYA (such consent, other than in the case of Section 5.1(b)(i), Section 5.1(b)(ii)(A), Section 5.1(b)(iv), Section 5.1(b)(x), Section 5.1(b)(xii), Section 5.1(b)(xiii), Section 5.1(b)(xiv) or Section 5.1(b)(xv) (to the extent related to any of the foregoing), not to be unreasonably withheld, conditioned or delayed), not do any of the following:

(i) declare, set aside, make or pay a dividend on, or make any other distribution or payment in respect of, any Equity Securities of any Group Company or repurchase any outstanding Equity Securities of any Group Company, other than dividends or distributions, declared, set aside or paid by any of the Company's Subsidiaries to the Company or any Subsidiary that is, directly or indirectly, wholly owned by the Company;

(ii) (A) merge, consolidate, combine or amalgamate any Group Company with any Person or (B) purchase or otherwise acquire (whether by merging or consolidating with, purchasing any Equity Security in or a substantial portion of the assets of, or by any other manner) any corporation, partnership, association or other business entity or organization or division thereof;

(iii) adopt any amendments, supplements, restatements or modifications to any Group Company's Governing Documents, the Company Shareholders Agreement or the Company Registration Rights Agreement;

(iv) transfer, issue, sell, grant or otherwise directly or indirectly dispose of, or subject to a Lien, (A) any Equity Securities of any Group Company or (B) any options, warrants, rights of conversion or other rights, agreements, arrangements or commitments obligating any Group Company to issue, deliver or sell any Equity Securities of any Group Company, other than the issuance of shares of the applicable class of capital stock of the Company upon the exercise or conversion of any Company Options or Company RSU Awards outstanding on the date of this Agreement in accordance with the terms of the applicable Company Equity Plan and the underlying grant, award or similar agreement; provided, that the Company may, for the avoidance of doubt, sell Pre-Closing Series A Shares to the Bain Shareholder pursuant to the Pre-Closing Series A Purchase Agreement on the terms and subject to the conditions set forth in this Agreement and the Bain Subscription Agreement;

(v) incur, create or assume any Indebtedness, other than ordinary course trade payables;

(vi) make any loans, advances or capital contributions to, or guarantees for the benefit of, or any investments in, any Person, other than (A) intercompany loans or capital contributions between the Company and any of its wholly owned Subsidiaries and (B) the reimbursement of expenses of employees in the ordinary course of business;

(vii) except (x) as required under the terms of any Employee Benefit Plan of any Group Company that is set forth on the Section 3.11(a) of the Company Disclosure Schedules or (y) in the ordinary course of business consistent with past practice (it being understood and agreed, for the avoidance of doubt, that in no event shall the exception in this clause (y) be deemed or construed as permitting any Group Company to take any action that is not permitted by any other provision of this Section 5.1(b)), (A) amend, modify, adopt, enter into or terminate any material Employee Benefit Plan of any Group Company or any material benefit or compensation plan, policy, program or Contract that would be an Employee Benefit Plan if in effect as of the date of this Agreement, (B) materially increase the compensation or benefits payable to any current or former director, manager, officer, employee, individual independent contractor or other service provider of any Group Company, (C) take any action to accelerate any payment, right to payment, or benefit, or the funding of any payment, right to payment or benefit, payable or to become payable to any current or former director, manager, officer, employee, individual independent contractor or other service provider of any Group Company or (D) waive or release any noncompetition, non-solicitation, no-hire, nondisclosure or other restrictive covenant obligation of any current or former director, manager, officer, employee, individual independent contractor or other service provider of any Group Company;

(viii) make, change or revoke any material election concerning Taxes, enter into any material Tax closing agreement, settle any material Tax claim or assessment, or consent to any extension or waiver of the limitation period applicable to or relating to any material Tax claim or assessment, other than any such extension or waiver that is obtained in the ordinary course of business;

(ix) enter into any settlement, conciliation or similar Contract the performance of which would involve the payment by the Group Companies in excess of \$2,000,000, in the aggregate, or that imposes, or by its terms will impose at any point in the future, any material, non-monetary obligations on any Group Company (or ARYA or any of its Affiliates after the Closing);

(x) authorize, recommend, propose or announce an intention to adopt, or otherwise effect, a plan of complete or partial liquidation, dissolution, restructuring, recapitalization, reorganization or similar transaction involving any Group Company;

(xi) change any Group Company's methods of accounting in any material respect, other than changes that are made in accordance with PCAOB standards;

(xii) enter into any Contract with any broker, finder, investment banker or other Person under which such Person is or will be entitled to any brokerage fee, finders' fee or other commission in connection with the transactions contemplated by this Agreement;

(xiii) make any Change of Control Payment that is not set forth on Section 3.2(f) of the Company Disclosure Schedules;

(xiv) (A) amend, modify or terminate any Material Contract of the type described in Section 3.7(a)(ix) or Section 3.7(a)(xi)(B) (excluding, for the avoidance of doubt, any expiration or automatic extension or renewal of any such Material Contract pursuant to its terms), (B) waive any material benefit or right under any Material Contract of the type described in Section 3.7(a)(ix) or Section 3.7(a)(xi)(B) or (C) enter into any Contract that would constitute a Material Contract of the type described in Section 3.7(a)(ix) or Section 3.7(a)(xi)(B); or

(xv) enter into any Contract to take, or cause to be taken, any of the actions set forth in this Section 5.1.

Notwithstanding anything in this Section 5.1 or this Agreement to the contrary, (a) nothing set forth in this Agreement shall give ARYA, directly or indirectly, the right to control or direct the operations of the Group Companies prior to the Closing, (b) any action taken, or omitted to be taken, by any Group Company to the extent such act or omission is reasonably determined by the Company, based on the advice of outside legal counsel, to be necessary to comply with any Law, Order, directive, pronouncement or guideline issued by a Governmental Entity providing for business closures, "sheltering-in-place" or other restrictions that relates to, or arises out of, COVID-19 shall in no event be deemed to constitute a breach of Section 5.1 and (c) any action taken, or omitted to be taken, by any Group Company to the extent that the board of directors of the Company reasonably determines that such act or omission is necessary in response to COVID-19 to maintain and preserve in all material respects the business organization, assets, properties and material business relations of the Group Companies, taken as a whole, shall not be deemed to constitute a breach of Section 5.1; provided, however, (i) in the case of each of clause (b) and (c), the Company shall give ARYA prior written notice of any such act or omission to the extent reasonably practicable, which notice shall describe in reasonable detail the act or omission and the reason(s) that such act or omission is being taken, or omitted to be taken, pursuant to clause (b) or (c) and, in the event that it is not reasonably practicable for the Company to give the prior written notice described in this clause (i), the Company shall instead give such written notice to ARYA promptly after such act or omission and (ii) in no event shall clause (b) or (c) be applicable to any act or omission of the type described in Section 5.1(b)(i), Section 5.1(b)(ii), Section 5.1(b)(iii), Section 5.1(b)(iv), Section 5.1(b)(vii), Section 5.1(b)(x), Section 5.1(b)(xii), Section 5.1(b)(xiii), Section 5.1(b)(xiv) or Section 5.1(b)(xv) (to the extent related to any of the foregoing).

Section 5.2 Efforts to Consummate; Litigation.

(a) Subject to the terms and conditions herein provided, each of the Parties shall use reasonable best efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things reasonably necessary or advisable to consummate and make effective as promptly as reasonably practicable the transactions contemplated by this Agreement (including (i) the satisfaction, but not waiver, of the closing conditions set forth in Article 6 and, in the case of any Ancillary Document to which such Party will be a party after the date of this Agreement, to execute and

delivery such Ancillary Document when required pursuant to this Agreement, (ii) using reasonable best efforts to obtain the PIPE Financing on the terms and subject to the conditions set forth in the Subscription Agreements and (iii) the Company taking, or causing to be taken, all actions necessary or advisable to cause the agreements set forth on Section 5.2(a) of the Company Disclosure Schedules to be terminated effective as of the Closing without any further obligations or liabilities to the Company or any of its Affiliates (including the other Group Companies and, from and after the Effective Time, ARYA)). Without limiting the generality of the foregoing, each of the Parties shall use reasonable best efforts to obtain, file with or deliver to, as applicable, any Consents of any Governmental Entities or other Persons necessary, proper or advisable to consummate the transactions contemplated by this Agreement or the Ancillary Documents. The Company shall bear the costs incurred in connection with obtaining such Consents; provided, however, that each Party shall pay fifty percent (50%) of the HSR Act filing fee; provided, further, that each Party shall bear its out-of-pocket costs and expenses in connection with the preparation of any such Consents. Each Party shall (i) make any appropriate filings pursuant to the HSR Act with respect to the transactions contemplated by this Agreement promptly (and in any event within five (5) Business Days) following the date of this Agreement and (ii) respond as promptly as reasonably practicable to any requests by any Governmental Entity for additional information and documentary material that may be requested pursuant to the HSR Act. ARYA shall promptly inform the Company of any communication between any ARYA Party, on the one hand, and any Governmental Entity, on the other hand, and the Company shall promptly inform ARYA of any communication between the Company, on the one hand, and any Governmental Entity, on the other hand, in either case, regarding any of the transactions contemplated by this Agreement or any Ancillary Document. Without limiting the foregoing, (a) the Parties agree to request early termination of the applicable waiting period under the HSR Act, and (b) each Party and their respective Affiliates shall not extend any waiting period, review period or comparable period under the HSR Act or enter into any agreement with any Governmental Entity not to consummate the transactions contemplated hereby or by the Ancillary Documents, except with the prior written consent of ARYA and the Company. Nothing in this Section 5.2 obligates any Party or any of its Affiliates to agree to (i) sell, license or otherwise dispose of, or hold separate and agree to sell, license or otherwise dispose of, any entities, assets or facilities of any Group Company or any entity, facility or asset of such Party or any of its Affiliates, (ii) terminate, amend or assign existing relationships and contractual rights or obligations, (iii) amend, assign or terminate existing licenses or other agreements, or (iv) enter into new licenses or other agreements. No Party shall agree to any of the foregoing measures with respect to any other Party or any of its Affiliates, except with ARYA's and the Company's prior written consent.

(b) From and after the date of this Agreement until the earlier of the Closing or termination of this Agreement in accordance with its terms, the ARYA Parties, on the one hand, and the Company, on the other hand, shall give counsel for the Company (in the case of any ARYA Party) or ARYA (in the case of the Company), a reasonable opportunity to review in advance, and consider in good faith the views of the other in connection with, any proposed written communication to any Governmental Entity relating to the transactions contemplated by this Agreement or the Ancillary Documents. Each of the Parties agrees not to participate in any substantive meeting or discussion, either in person or by telephone with any Governmental Entity in connection with the transactions contemplated by this Agreement unless it consults with, in the case of any ARYA Party, the Company, or, in the case of the Company, ARYA in advance and, to the extent not prohibited by such Governmental Entity, gives, in the case of any ARYA Party, the Company, or, in the case of the Company, ARYA, the opportunity to attend and participate in such meeting or discussion.

(c) Notwithstanding anything to the contrary in the Agreement, in the event that this Section 5.2 conflicts with any other covenant or agreement in this Article 5 that is intended to specifically address any subject matter, then such other covenant or agreement shall govern and control solely to the extent of such conflict.

(d) From and after the date of this Agreement until the earlier of the Closing or termination of this Agreement in accordance with its terms, ARYA, on the one hand, and the Company, on the other hand, shall each notify the other in writing promptly after learning of any shareholder demands or other shareholder Proceedings (including derivative claims) relating to this Agreement, any Ancillary Document or any matters relating thereto (collectively, the "Transaction Litigation") commenced against, in the case of ARYA, any of the ARYA Parties or any of their respective Representatives (in their capacity as a representative of an ARYA Party) or, in the case of the Company, any Group Company or any of their respective Representatives (in their capacity as a representative of an ARYA Party). ARYA and the Company shall each (i) keep the other reasonably informed regarding any Transaction Litigation, (ii) give the other the opportunity to, at its own cost and expense, participate in the defense, settlement and compromise of any such Transaction Litigation and reasonably cooperate with the other in connection with the

defense, settlement and compromise of any such Transaction Litigation, (iii) consider in good faith the other's advice with respect to any such Transaction Litigation and (iv) reasonably cooperate with each other. Notwithstanding the foregoing, the Company shall, subject to and without limiting the covenants and agreements, and the rights of ARYA, set forth in the immediately preceding sentence, control the negotiation, defense and settlement of any such Transaction Litigation; provided, however, that in no event shall the Company, any other Group Company or any of their respective Representatives settle or compromise any Transaction Litigation without the prior written consent of ARYA (not to be unreasonably withheld, conditioned or delayed, provided that it shall be deemed to be reasonable for ARYA to withhold, condition or delay its consent if any such settlement or compromise (A) does not provide for a legally binding, full, unconditional and irrevocable release of each ARYA Party and Representative that is the subject of such Transaction Litigation, (B) provides for (x) the payment of cash any portion of which is payable by any ARYA Party or Representative thereof or would otherwise constitute an ARYA Liability or (y) any non-monetary, injunctive, equitable or similar relief against any ARYA Party or (C) contains an admission of wrongdoing or Liability by an ARYA Party or any of its Representatives). Without limiting the generality of the foregoing, in no event shall ARYA, any of the ARYA Parties or any of their respective Representatives settle or compromise any Transaction Litigation without the Company's prior written consent.

Section 5.3 Confidentiality and Access to Information.

(a) The Parties hereby acknowledge and agree that the information being provided in connection with this Agreement and the consummation of the transactions contemplated hereby is subject to the terms of the Confidentiality Agreements, the terms of which are incorporated herein by reference. Notwithstanding the foregoing or anything to the contrary in this Agreement, in the event that this Section 5.3(a) or either Confidentiality Agreement conflicts with any other covenant or agreement contained herein or any Ancillary Document that contemplates the disclosure, use or provision of information or otherwise, then such other covenant or agreement contained herein shall govern and control to the extent of such conflict.

(b) From and after the date of this Agreement until the earlier of the Closing Date or the termination of this Agreement in accordance with its terms, upon reasonable advance written notice, the Company shall provide, or cause to be provided, to ARYA and its Representatives during normal business hours reasonable access to the directors, officers, books and records of the Group Companies (in a manner so as to not interfere with the normal business operations of the Group Companies). Notwithstanding the foregoing, none of the Group Companies shall be required to provide to ARYA or any of its Representatives any information (i) if and to the extent doing so would (A) violate any Law to which any Group Company is subject, including any Privacy Law, (B) result in the disclosure of any trade secrets of third parties in breach of any Contract with such third party, (C) violate any legally-binding obligation of any Group Company with respect to confidentiality, non-disclosure or privacy or (D) jeopardize protections afforded to any Group Company under the attorney-client privilege or the attorney work product doctrine (provided that, in case of each of clauses (A) through (D), the Company shall, and shall cause the other Group Companies to, use commercially reasonable efforts to (x) provide such access as can be provided (or otherwise convey such information regarding the applicable matter as can be conveyed) without violating such privilege, doctrine, Contract, obligation or Law and (y) provide such information in a manner without violating such privilege, doctrine, Contract, obligation or Law), or (ii) if any Group Company, on the one hand, and any ARYA Party, any ARYA Non-Party Affiliate or any of their respective Representatives, on the other hand, are adverse parties in a litigation and such information is reasonably pertinent thereto; provided that the Company shall, in the case of clause (i) or (ii), provide prompt written notice of the withholding of access or information on any such basis.

(c) From and after the date of this Agreement until the earlier of the Closing Date or the termination of this Agreement in accordance with its terms, upon reasonable advance written notice, ARYA shall provide, or cause to be provided, to the Company and its Representatives during normal business hours reasonable access to the directors, officers, books and records of the ARYA Parties (in a manner so as to not interfere with the normal business operations of the ARYA Parties). Notwithstanding the foregoing, ARYA shall not be required to provide, or cause to be provided to, the Company or any of its Representatives any information (i) if and to the extent doing so would (A) violate any Law to which any ARYA Party is subject, (B) result in the disclosure of any trade secrets of third parties in breach of any Contract with such third party, (C) violate any legally-binding obligation of any ARYA Party with respect to confidentiality, non-disclosure or privacy or (D) jeopardize protections afforded to any ARYA Party under the attorney-client privilege or the attorney work product doctrine (provided that, in case of each of clauses (A) through (D), ARYA shall use, and shall cause the other ARYA Parties to use, commercially

reasonable efforts to (x) provide such access as can be provided (or otherwise convey such information regarding the applicable matter as can be conveyed) without violating such privilege, doctrine, Contract, obligation or Law and (y) provide such information in a manner without violating such privilege, doctrine, Contract, obligation or Law), or (ii) if an ARYA Party, on the one hand, and any Group Company, any Company Non-Party Affiliate or any of their respective Representatives, on the other hand, are adverse parties in a litigation and such information is reasonably pertinent thereto; provided that ARYA shall, in the case of clause (i) or (ii), provide prompt written notice of the withholding of access or information on any such basis.

Section 5.4 Public Announcements.

(a) Subject to Section 5.4(b), Section 5.7 and Section 5.8, none of the Parties or any of their respective Representatives shall issue any press releases or make any public announcements with respect to this Agreement or the transactions contemplated hereby without the prior written consent of, prior to the Closing, the Company and ARYA or, after the Closing, ARYA; provided, however, that each Party may make any such announcement or other communication (i) if such announcement or other communication is required by applicable Law, in which case (A) prior to the Closing, the disclosing Party and its Representatives shall use reasonable best efforts to consult with the Company, if the disclosing party is any ARYA Party, or ARYA, if the disclosing party is the Company, to review such announcement or communication and the opportunity to comment thereon and the disclosing Party shall consider such comments in good faith, or (B) after the Closing, the disclosing Party and its Representatives shall use reasonable best efforts to consult with ARYA and the disclosing Party shall consider such comments in good faith, (ii) to the extent such announcements or other communications contain only information previously disclosed in a public statement, press release or other communication previously approved in accordance with this Section 5.4 and (iii) to Governmental Entities in connection with any Consents required to be made under this Agreement, the Ancillary Documents or in connection with the transactions contemplated hereby or thereby. Notwithstanding anything to the contrary in this Section 5.4 or otherwise in this Agreement, the Parties agree that (A) the Perceptive Shareholders and their respective Representatives may provide general information about the subject matter of this Agreement and the transactions contemplated hereby to any direct or indirect current or prospective investor or in connection with normal fund raising or related marketing or informational or reporting activities, and (B) the Bain Shareholder and its Representatives may provide general information about the subject matter of this Agreement and the transactions contemplated hereby to any direct or indirect current or prospective investor or in connection with normal fund raising or related marketing or informational or reporting activities, provided the recipients of such information are subject to customary confidentiality obligations prior to the receipt of such information.

(b) The initial press release concerning this Agreement and the transactions contemplated hereby shall be a joint press release in the form agreed by the Company and ARYA prior to the execution of this Agreement and such initial press release (the “Signing Press Release”) shall be released as promptly as reasonably practicable after the execution of this Agreement on the day thereof. Promptly after the execution of this Agreement, ARYA shall file a current report on Form 8-K (the “Signing Filing”) with the Signing Press Release and a description of this Agreement as required by, and in compliance with, the Securities Laws, which the Company shall have the opportunity to review and comment upon prior to filing and ARYA shall consider such comments in good faith. The Company, on the one hand, and ARYA, on the other hand, shall mutually agree upon (such agreement not to be unreasonably withheld, conditioned or delayed by either the Company or ARYA, as applicable) a press release announcing the consummation of the transactions contemplated by this Agreement (the “Closing Press Release”) prior to the Closing, and, on the Closing Date, the Parties shall cause the Closing Press Release to be released. Promptly after the Closing (but in any event within four (4) Business Days after the Closing), ARYA shall file a current report on Form 8-K (the “Closing Filing”) with the Closing Press Release and a description of the Closing as required by Securities Laws. In connection with the preparation of each of the Signing Press Release, the Signing Filing, the Closing Press Release and the Closing Filing, each Party shall, upon written request by any other Party, furnish such other Party with all information concerning itself, its directors, officers and equityholders, and such other matters as may be reasonably necessary for such press release or filing.

Section 5.5 Tax Matters.

(a) Tax Treatment.

(i) The Parties intend that the Domestication shall constitute a transaction treated as a “reorganization” within the meaning of Section 368(a)(1)(F) of the Code and ARYA shall (and shall cause its respective Affiliates to) use

reasonable best efforts to cause it to so qualify. The Parties intend that the Merger shall be treated as a transaction that qualifies as a “reorganization” within the meaning of Section 368 of the Code, and each Party shall, and shall cause its respective Affiliates to, use reasonable best efforts to so qualify. The Parties shall file all Tax Returns consistent with, and take no position inconsistent with (whether in audits, Tax Returns or otherwise), the treatment described in this Section 5.5(a)(i) unless required to do so pursuant to a “determination” that is final within the meaning of Section 1313(a) of the Code. Notwithstanding anything to the contrary herein, if, after the date hereof but prior to the time at which the Required ARYA Shareholder Approval has been obtained ARYA and the Company mutually determine in good faith that the Merger is not reasonably expected to qualify as a “reorganization” within the meaning of Section 368(a) of the Code, the Parties shall use commercially reasonable efforts to restructure the transactions contemplated hereby (such restructured transactions, the “Alternative Transaction Structure”) in a manner that is reasonably expected to cause the Alternative Transaction Structure to so qualify, including by adding a second merger to take place immediately after the Merger whereby the surviving company in the Merger would merge with and into a new limited liability company that is a wholly-owned Subsidiary of ARYA (“Newco”), with Newco being the surviving company in such merger.

(ii) ARYA and the Company hereby adopt this Agreement as a “plan of reorganization” within the meaning of Treasury Regulations Sections 1.368-2(g) and 1.368-3(a). From the date hereof through the Closing, and following the Closing, the Parties shall not, and shall not permit or cause their respective Affiliates to, take any action, or knowingly fail to take any action, which action or failure to act prevents or impedes, or would reasonably be expected to prevent or impede, (A) the Merger qualifying for the Intended Tax Treatment, and (B) in the case of ARYA, the Domestication qualifying for the Intended Tax Treatment.

(iii) If, in connection with the preparation and filing of the Registration Statement / Proxy Statement, the SEC requests or requires that tax opinions be prepared and submitted in such connection, ARYA and the Company shall deliver to Kirkland & Ellis and Goodwin Procter LLP, respectively, customary Tax representation letters satisfactory to its counsel, dated and executed as of the date the Registration Statement / Proxy Statement shall have been declared effective by the SEC and such other date(s) as determined reasonably necessary by such counsel in connection with the preparation and filing of the Registration Statement / Proxy Statement, and, if required, Kirkland & Ellis LLP shall furnish an opinion, subject to customary assumptions and limitations, to the effect that the Intended Tax Treatment should apply to the Domestication and, if required, Goodwin Procter LLP shall furnish an opinion, subject to customary assumptions and limitations, to the effect that the Intended Tax Treatment should apply to the Merger.

(b) Tax Matters Cooperation. Each of the Parties shall (and shall cause their respective Affiliates to) cooperate fully, as and to the extent reasonably requested by another Party, in connection with the filing of relevant Tax Returns, and any audit or tax proceeding. Such cooperation shall include the retention and (upon the other Party’s request) the provision (with the right to make copies) of records and information reasonably relevant to any tax proceeding or audit, making employees available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder and making available to the Pre-Closing ARYA Holders information reasonably necessary to compute any income of any such holder (or its direct or indirect owners) arising (i) if applicable, as a result of ARYA’s status as a “passive foreign investment company” within the meaning of Section 1297(a) of the Code or a “controlled foreign corporation” within the meaning of Section 957(a) of the Code for any taxable period ending on or prior to the Closing, including timely providing (A) a PFIC Annual Information Statement to enable such holders to make a “Qualifying Electing Fund” election under Section 1295 of the Code for such taxable period, and (B) information to enable applicable holders to report their allocable share of “subpart F” income under Section 951 of the Code for such taxable period and (ii) under Section 367(b) of the Code and the Treasury Regulations promulgated thereunder as a result of the Domestication.

(c) ARYA Taxable Year. The Parties agree to treat the taxable year of ARYA as ending on the date of the Domestication for U.S. federal income tax purposes.

Section 5.6 Exclusive Dealing.

(a) From the date of this Agreement until the earlier of the Closing or the termination of this Agreement in accordance with its terms, the Company shall not, and shall cause the other Group Companies and its and their respective Representatives not to, directly or indirectly: (i) solicit, initiate, encourage (including by means of furnishing or disclosing information), facilitate, discuss or negotiate, directly or indirectly, any inquiry, proposal or offer (written or oral) with respect to a Company Acquisition Proposal; (ii) furnish or disclose any non- public information to any Person in connection with, or that could reasonably be expected to lead to, a Company

Acquisition Proposal; (iii) enter into any Contract or other arrangement or understanding regarding a Company Acquisition Proposal; (iv) prepare or take any steps in connection with a public offering of any Equity Securities of any Group Company (or any Affiliate or successor of any Group Company); or (v) otherwise cooperate in any way with, or assist or participate in, or knowingly facilitate or encourage any effort or attempt by any Person to do or seek to do any of the foregoing. The Company agrees to (A) notify ARYA promptly upon receipt of any Company Acquisition Proposal by any Group Company, and to describe the material terms and conditions of any such Company Acquisition Proposal in reasonable detail (including the identity of the Persons making such Company Acquisition Proposal) and (B) keep ARYA reasonably informed on a current basis of any modifications to such offer or information.

(b) From the date of this Agreement until the earlier of the Closing or the termination of this Agreement in accordance with its terms, the ARYA Parties shall not, and each of them shall cause their Representatives not to, directly or indirectly: (i) solicit, initiate, encourage (including by means of furnishing or disclosing information), facilitate, discuss or negotiate, directly or indirectly, any inquiry, proposal or offer (written or oral) with respect to an ARYA Acquisition Proposal; (ii) furnish or disclose any non-public information to any Person in connection with, or that could reasonably be expected to lead to, an ARYA Acquisition Proposal; (iii) enter into any Contract or other arrangement or understanding regarding an ARYA Acquisition Proposal; (iv) prepare or take any steps in connection with an offering of any securities of any ARYA Party (or any Affiliate or successor of any ARYA Party); or (v) otherwise cooperate in any way with, or assist or participate in, or knowingly facilitate or encourage any effort or attempt by any Person to do or seek to do any of the foregoing. ARYA agrees to (A) notify the Company promptly upon receipt of any ARYA Acquisition Proposal by any ARYA Party, and to describe the material terms and conditions of any such Acquisition Proposal in reasonable detail (including the identity of any person or entity making such ARYA Acquisition Proposal) and (B) keep the Company reasonably informed on a current basis of any modifications to such offer or information.

Section 5.7 Preparation of Registration Statement / Proxy Statement. As promptly as reasonably practicable following the date of this Agreement, ARYA and the Company shall prepare and mutually agree upon (such agreement not to be unreasonably withheld, conditioned or delayed by either ARYA or the Company, as applicable), and ARYA shall file with the SEC, the Registration Statement / Proxy Statement (it being understood that the Registration Statement / Proxy Statement shall include a proxy statement / prospectus of ARYA which will be included therein as a prospectus and which will be used for the ARYA Shareholders Meeting to adopt and approve the Transaction Proposals and other matters reasonably related to the Transaction Proposals, all in accordance with and as required by ARYA's Governing Documents, applicable Law, and any applicable rules and regulations of the SEC and Nasdaq). Each of ARYA and the Company shall use its reasonable best efforts to (a) cause the Registration Statement / Proxy Statement to comply in all material respects with the applicable rules and regulations promulgated by the SEC (including, with respect to the Group Companies, the provision of financial statements of, and any other information with respect to, the Group Companies for all periods, and in the form, required to be included in the Registration Statement / Proxy Statement under Securities Laws (after giving effect to any waivers received) or in response to any comments from the SEC); (b) promptly notify the others of, reasonably cooperate with each other with respect to and respond promptly to any comments of the SEC or its staff; (c) have the Registration Statement / Proxy Statement declared effective under the Securities Act as promptly as reasonably practicable after it is filed with the SEC; and (d) keep the Registration Statement / Proxy Statement effective through the Closing in order to permit the consummation of the transactions contemplated by this Agreement. ARYA, on the one hand, and the Company, on the other hand, shall promptly furnish, or cause to be furnished, to the other all information concerning such Party, its Non-Party Affiliates and their respective Representatives that may be required or reasonably requested in connection with any action contemplated by this Section 5.7 or for including in any other statement, filing, notice or application made by or on behalf of ARYA to the SEC or Nasdaq in connection with the transactions contemplated by this Agreement or the Ancillary Documents, including delivering customary tax representation letters to counsel to enable counsel to deliver any tax opinions requested or required by the SEC to be submitted in connection therewith as described in Section 5.5(a)(iii). If any Party becomes aware of any information that should be disclosed in an amendment or supplement to the Registration Statement / Proxy Statement, then (i) such Party shall promptly inform, in the case of any ARYA Party, the Company, or, in the case of the Company, ARYA, thereof; (ii) such Party shall prepare and mutually agree upon with, in the case of ARYA, the Company, or, in the case of the Company, ARYA (in either case, such agreement not to be unreasonably withheld, conditioned or delayed), an amendment or supplement to the Registration Statement / Proxy Statement; (iii) ARYA shall file such mutually agreed upon amendment or supplement with the SEC; and (iv) the Parties shall reasonably cooperate, if

appropriate, in mailing such amendment or supplement to the Pre-Closing ARYA Holders. ARYA shall as promptly as reasonably practicable advise the Company of the time of effectiveness of the Registration Statement / Proxy Statement, the issuance of any stop order relating thereto or the suspension of the qualification of ARYA Shares for offering or sale in any jurisdiction, and ARYA and the Company shall each use its reasonable best efforts to have any such stop order or suspension lifted, reversed or otherwise terminated. Each of the Parties shall use reasonable best efforts to ensure that none of the information related to him, her or it or any of his, her or its Non-Party Affiliates or its or their respective Representatives, supplied by or on his, her or its behalf for inclusion or incorporation by reference in the Registration Statement / Proxy Statement will, at the time the Registration Statement / Proxy Statement is initially filed with the SEC, at each time at which it is amended, or at the time it becomes effective under the Securities Act contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they are made, not misleading.

Section 5.8 ARYA Shareholder Approval. As promptly as reasonably practicable following the time at which the Registration Statement / Proxy Statement is declared effective under the Securities Act, ARYA shall (a) duly give notice of and (b) use reasonable best efforts to duly convene and hold a meeting of its shareholders (the “ARYA Shareholders Meeting”) in accordance with the Governing Documents of ARYA, for the purposes of obtaining the ARYA Shareholder Approval and, if applicable, any approvals related thereto and providing its shareholders with the opportunity to elect to effect an ARYA Shareholder Redemption. ARYA shall, through unanimous approval of its board of directors, recommend to its shareholders (the “ARYA Board Recommendation”), (i) the adoption and approval of this Agreement and the transactions contemplated hereby (including the Merger) (the “Business Combination Proposal”); (ii) the adoption and the approval of the Domestication (the “Domestication Proposal”); (iii) the adoption and approval of the issuance of the ARYA Shares in connection with the transactions contemplated by this Agreement as required by Nasdaq listing requirements (the “Nasdaq Proposal”); (iv) the adoption and approval of the amendments to the Governing Documents of ARYA contemplated by the ARYA Certificate of Incorporation and the ARYA Bylaws (the “Governing Document Proposals”); (v) the adoption and approval of the ARYA Incentive Equity Plan (the “Equity Incentive Plan Proposal”); (vi) the adoption and approval of the ARYA Employee Stock Purchase Plan; (vii) the adoption and approval of each other proposal that either the SEC or Nasdaq (or the respective staff members thereof) indicates is necessary in its comments to the Registration Statement / Proxy Statement or in correspondence related thereto; (viii) the adoption and approval of each other proposal reasonably agreed to by ARYA and the Company as necessary or appropriate in connection with the consummation of the transactions contemplated by this Agreement or the Ancillary Documents; and (ix) the adoption and approval of a proposal for the adjournment of the ARYA Shareholders Meeting, if necessary, to permit further solicitation of proxies because there are not sufficient votes to approve and adopt any of the foregoing (such proposals in (i) through (ix) together, the “Transaction Proposals”); provided, that ARYA may adjourn the ARYA Shareholders Meeting (A) to solicit additional proxies for the purpose of obtaining the ARYA Shareholder Approval, (B) for the absence of a quorum, (C) to allow reasonable additional time for the filing or mailing of any supplemental or amended disclosures that ARYA has determined, based on the advice of outside legal counsel, is reasonably likely to be required under applicable Law and for such supplemental or amended disclosure to be disseminated and reviewed by the Pre-Closing ARYA Holders prior to the ARYA Shareholders Meeting or (D) if the holders of ARYA Class A Shares have elected to redeem a number of Class A Shares as of such time that would reasonably be expected to result in the condition set forth in Section 6.3(c) not being satisfied; provided that, without the consent of the Company, in no event shall ARYA adjourn the ARYA Shareholders Meeting for more than fifteen (15) Business Days later than the most recently adjourned meeting or to a date that is beyond the Termination Date. The ARYA recommendation contemplated by the preceding sentence shall be included in the Registration Statement / Proxy Statement. Except as otherwise required by applicable Law, ARYA covenants that none of the ARYA Board or ARYA nor any committee of the ARYA Board shall withdraw or modify, or propose publicly or by formal action of the ARYA Board, any committee of the ARYA Board or ARYA to withdraw or modify, in a manner adverse to the Company, the ARYA Board Recommendation or any other recommendation by the ARYA Board or ARYA of the proposals set forth in the Registration Statement / Proxy Statement.

Section 5.9 Cassidy Merger Sub Shareholder Approval. As promptly as reasonably practicable (and in any event within one Business Day) following the date of this Agreement, ARYA, as the sole shareholder of Cassidy Merger Sub, will approve and adopt this Agreement, the Ancillary Documents to which Cassidy Merger Sub is or will be a party and the transactions contemplated hereby and thereby (including the Merger).

Section 5.10 Conduct of Business of ARYA. From and after the date of this Agreement until the earlier of the Closing or the termination of this Agreement in accordance with its terms, ARYA shall not, and shall cause its Subsidiaries not to, as applicable, except as expressly contemplated by this Agreement or any Ancillary Document (including, for the avoidance of doubt, in connection with the Domestication or the PIPE Financing), as required by applicable Law, as set forth on Section 5.10 of the ARYA Disclosure Schedules or as consented to in writing by the Company, do any of the following:

- (a) adopt any amendments, supplements, restatements or modifications to the Trust Agreement, Warrant Agreement or the Governing Documents of any ARYA Party or any of its Subsidiaries;
- (b) declare, set aside, make or pay a dividend on, or make any other distribution or payment in respect of, any Equity Securities of ARYA or any of its Subsidiaries, or repurchase, redeem or otherwise acquire, or offer to repurchase, redeem or otherwise acquire, any outstanding Equity Securities of ARYA or any of its Subsidiaries, as applicable;
- (c) split, combine or reclassify any of its capital stock or other Equity Securities or issue any other security in respect of, in lieu of or in substitution for shares of its capital stock;
- (d) incur, create or assume any Indebtedness or other Liability;
- (e) make any loans or advances to, or capital contributions in, any other Person, other than to, or in, ARYA or any of its Subsidiaries;
- (f) issue any Equity Securities of ARYA or any of its Subsidiaries or grant any additional options, warrants or stock appreciation rights with respect to Equity Securities of the foregoing of ARYA or any of its Subsidiaries;
- (g) enter into, renew, modify or revise any ARYA Related Party Transaction (or any Contract or agreement that if entered into prior to the execution and delivery of this Agreement would be a ARYA Related Party Transaction);
- (h) engage in any activities or business, other than activities or business (i) in connection with or incident or related to such Person's organization, incorporation or formation, as applicable, or continuing corporate (or similar) existence, (ii) contemplated by, or incident or related to, this Agreement, any Ancillary Document, the performance of covenants or agreements hereunder or thereunder or the consummation of the transactions contemplated hereby or thereby or (iii) those that are administrative or ministerial, in each case, which are immaterial in nature;
- (i) make, change or revoke any material election concerning Taxes, enter into any material Tax closing agreement, settle any material Tax claim or assessment, or consent to any extension or waiver of the limitation period applicable to or relating to any material Tax claim or assessment, other than any such extension or waiver that is obtained in the ordinary course of business;
- (j) authorize, recommend, propose or announce an intention to adopt a plan of complete or partial liquidation or dissolution;
- (k) enter into any Contract with any broker, finder, investment banker or other Person under which such Person is or will be entitled to any brokerage fee, finders' fee or other commission in connection with the transactions contemplated by this Agreement; or
- (l) enter into any Contract to take, or cause to be taken, any of the actions set forth in this Section 5.10.

Notwithstanding anything in this Section 5.10 or this Agreement to the contrary, (i) nothing set forth in this Agreement shall give the Company, directly or indirectly, the right to control or direct the operations of any ARYA Party and (ii) nothing set forth in this Agreement shall prohibit, or otherwise restrict the ability of, any ARYA Party from using the funds held by ARYA outside the Trust Account to pay any ARYA Expenses or ARYA Liabilities or from otherwise distributing or paying over any funds held by ARYA outside the Trust Account to the Sponsor or any of its Affiliates, in each case, prior to the Closing.

Section 5.11 Nasdaq Listing . ARYA shall use its reasonable best efforts to cause: (a) ARYA's initial listing application with Nasdaq in connection with the transactions contemplated by this Agreement to have been approved; (b) ARYA to satisfy all applicable initial and continuing listing requirements of Nasdaq; and (c) the ARYA Shares issuable in accordance with this Agreement, including the Domestication and the Merger, to be approved for listing on Nasdaq (and the Company shall reasonably cooperate in connection therewith), subject to official notice of issuance, in each case, as promptly as reasonably practicable after the date of this Agreement, and in any event prior to the Effective Time.

Section 5.12 Trust Account. Upon satisfaction or, to the extent permitted by applicable Law, waiver of the conditions set forth in Article 6 and provision of notice thereof to the Trustee, (a) at the Closing, ARYA shall (i) cause the documents, certificates and notices required to be delivered to the Trustee pursuant to the Trust Agreement to be so delivered, and (ii) make all appropriate arrangements to cause the Trustee to (A) pay as and when due all amounts, if any, payable to the Public Shareholders of ARYA pursuant to the ARYA Shareholder Redemption, (B) pay the amounts due to the underwriters of ARYA's initial public offering for their deferred underwriting commissions as set forth in the Trust Agreement and (C) immediately thereafter, pay all remaining amounts then available in the Trust Account to ARYA in accordance with the Trust Agreement, and (b) thereafter, the Trust Account shall terminate, except as otherwise provided therein.

Section 5.13 Transaction Support Agreements; Company Shareholder Approval; Subscription Agreements.

(a) As promptly as reasonably practicable (and in any event within one Business Day) following the date of this Agreement (the "Transaction Support Agreement Deadline"), the Company shall deliver, or cause to be delivered, to ARYA the Transaction Support Agreements duly executed by each Supporting Company Shareholder.

(b) As promptly as reasonably practicable (and in any event within two Business Days) following the time at which the Registration Statement / Proxy Statement is declared effective under the Securities Act (the "Company Shareholder Written Consent Deadline"), the Company shall obtain and deliver to ARYA a true and correct copy of a written consent (in form and substance reasonably satisfactory to ARYA) approving this Agreement, the Ancillary Documents to which the Company is or will be a party and the transactions contemplated hereby and thereby (including the Merger) that is duly executed by the Company Shareholders that hold at least the requisite number of issued and outstanding Company Shares required to approve and adopt such matters in accordance with the DGCL, the Company's Governing Documents and the Company Shareholders Agreement (the "Company Shareholder Written Consent"). The Company, through its board of directors, shall recommend to the holders of Company Shares the approval and adoption of this Agreement and the transactions contemplated by this Agreement (including the Merger).

(c) ARYA may not modify or waive any provisions of a Subscription Agreement without the prior written consent of the Company; provided that any modification or waiver that is solely ministerial in nature or otherwise immaterial and does not affect any economic or any other material term of a Subscription Agreement shall not require the prior written consent of the Company.

(d) As promptly as reasonably practicable (and in any event prior to the earlier of (x) the time at which the Company delivers the Allocation Schedule to ARYA pursuant to Section 2.3 or (y) the time at which the Company is required to deliver to the Allocation Schedule to ARYA pursuant to Section 2.3), the Company shall either (i) obtain and deliver to ARYA a true and correct copy of a written consent (in form and substance reasonably satisfactory to ARYA) approving the Allocation Schedule (and calculations and determinations therein) that is duly executed by the Company Shareholders holding the requisite number of Company Shares required to approve such matter in accordance with the DGCL, the Company's Governing Documents, the Company Shareholders Agreement and each other Contract to which the Company is a party or bound that governs or otherwise relates to the Company Shares or (ii) amend or otherwise modify, or cause to be amended or otherwise modified, the Governing Documents of the Company, the Company Shareholders Agreement and each other Contract to which the Company is a party or bound that governs or otherwise relates to the Company Shares, in each case, solely to the extent necessary for the Allocation Schedule (and the calculations and determinations therein) to comply with clause (C) of Section 2.3 and otherwise in a form and substance reasonably satisfactory to ARYA.

(e) The Company may not amend, modify or waive any provisions of an ARYA Shareholder Support Agreement without the prior written consent of ARYA.

Section 5.14 ARYA Indemnification; Directors' and Officers' Insurance.

(a) Each Party agrees that (i) all rights to indemnification or exculpation now existing in favor of the directors and officers of each ARYA Party, as provided in the applicable ARYA Party's Governing Documents or otherwise in effect as of immediately prior to the Effective Time, in either case, solely with respect to any matters occurring on or prior to the Effective Time shall survive the transactions contemplated by this Agreement and shall continue in full force and effect from and after the Effective Time for a period of six (6) years and (ii) ARYA will perform and discharge, or cause to be performed and discharged, all obligations to provide such indemnity and exculpation during such six (6)-year period. To the maximum extent permitted by applicable Law, during such six (6)-year

period, ARYA shall advance, or caused to be advanced, expenses in connection with such indemnification as provided in the applicable ARYA Party's Governing Documents or other applicable agreements as in effect immediately prior to the Effective Time. The indemnification and liability limitation or exculpation provisions of the ARYA Parties' Governing Documents shall not, during such six (6)-year period, be amended, repealed or otherwise modified after the Effective Time in any manner that would materially and adversely affect the rights thereunder of individuals who, as of immediately prior to the Effective Time, or at any time prior to such time, were directors or officers of any ARYA Party (the "ARYA D&O Persons") entitled to be so indemnified, have their liability limited or be exculpated with respect to any matters occurring on or prior to the Effective Time and relating to the fact that such ARYA D&O Person was a director or officer of any ARYA Party immediately prior to the Effective Time, unless such amendment, repeal or other modification is required by applicable Law.

(b) ARYA shall not have any obligation under this Section 5.14 to any ARYA D&O Person when and if a court of competent jurisdiction shall ultimately determine (and such determination shall have become final and non-appealable) that the indemnification of such ARYA D&O Person in the manner contemplated hereby is prohibited by applicable Law.

(c) For a period of six (6) years after the Effective Time, ARYA shall maintain, without any lapses in coverage, directors' and officers' liability insurance for the benefit of those Persons who are currently covered by any comparable insurance policies of the ARYA Parties as of the date of this Agreement with respect to matters occurring on or prior to the Effective Time. Such insurance policies shall provide coverage on terms (with respect to coverage and amount) that are substantially the same as (and no less favorable in the aggregate to the insured than) the coverage provided under ARYA's directors' and officers' liability insurance policies as of the date of this Agreement; provided that ARYA shall not be obligated to pay annual premiums in excess of three hundred percent (300%) of the most recent annual premium paid by ARYA prior to the date of this Agreement and, in such event, ARYA shall purchase the maximum coverage available for three hundred percent (300%) of the most recent annual premium paid by ARYA prior to the date of this Agreement.

(d) If ARYA or any of its successors or assigns (i) shall merge or consolidate with or merge into any other corporation or entity and shall not be the surviving or continuing corporation or entity of such consolidation or merger or (ii) shall transfer all or substantially all of their respective properties and assets as an entity in one or a series of related transactions to any Person, then in each such case, proper provisions shall be made so that the successors or assigns of ARYA shall assume all of the obligations set forth in this Section 5.14.

(e) The ARYA D&O Persons entitled to the indemnification, liability limitation, exculpation and insurance set forth in this Section 5.14 are intended to be third-party beneficiaries of this Section 5.14. This Section 5.14 shall survive the consummation of the transactions contemplated by this Agreement and shall be binding on all successors and assigns of ARYA.

Section 5.15 Company Indemnification; Directors' and Officers' Insurance.

(a) Each Party agrees that (i) all rights to indemnification or exculpation now existing in favor of the directors and officers of the Group Companies, as provided in the Group Companies' Governing Documents or otherwise in effect as of immediately prior to the Effective Time, in either case, solely with respect to any matters occurring on or prior to the Effective Time, shall survive the transactions contemplated by this Agreement and shall continue in full force and effect from and after the Effective Time for a period of six (6) years and (ii) ARYA will cause the applicable Group Companies to perform and discharge all obligations to provide such indemnity and exculpation during such six (6)-year period. To the maximum extent permitted by applicable Law, during such six (6)-year period, ARYA shall cause the applicable Group Companies to advance expenses in connection with such indemnification as provided in the Group Companies' Governing Documents or other applicable agreements in effect as of immediately prior to the Effective Time. The indemnification and liability limitation or exculpation provisions of the Group Companies' Governing Documents shall not, during such six (6)-year period, be amended, repealed or otherwise modified after the Effective Time in any manner that would materially and adversely affect the rights thereunder of individuals who, as of the Effective Time or at any time prior to the Effective Time, were directors or officers of the Group Companies (the "Company D&O Persons") entitled to be so indemnified, have their liability limited or be exculpated with respect to any matters occurring prior to Closing and relating to the fact that such Company D&O Person was a director or officer of any Group Company prior to the Effective Time, unless such amendment, repeal or other modification is required by applicable Law.

(b) None of ARYA or the Group Companies shall have any obligation under this Section 5.15 to any Company D&O Person when and if a court of competent jurisdiction shall ultimately determine (and such determination shall have become final and non-appealable) that the indemnification of such Company D&O Person in the manner contemplated hereby is prohibited by applicable Law.

(c) The Company shall purchase, at or prior to the Closing, and ARYA shall maintain, or cause to be maintained, in effect for a period of six (6) years after the Effective Time, without lapses in coverage, a “tail” policy providing directors’ and officers’ liability insurance coverage for the benefit of those Persons who are currently covered by any comparable insurance policies of the Group Companies as of the date of this Agreement with respect to matters occurring on or prior to the Effective Time (the “Company D&O Tail Policy”). Such “tail” policy shall provide coverage on terms (with respect to coverage and amount) that are substantially the same as (and no less favorable in the aggregate to the insured than) the coverage provided under the Group Companies’ directors’ and officers’ liability insurance policies as of the date of this Agreement; provided that none of the Company, ARYA or any of their respective Affiliates shall pay a premium for such “tail” policy in excess of three hundred percent (300%) of the most recent annual premium paid by the Group Companies prior to the date of this Agreement and, in such event, the Company, ARYA or one of their respective Affiliates shall purchase the maximum coverage available for three hundred percent (300%) of the most recent annual premium paid by the Group Companies prior to the date of this Agreement.

(d) If ARYA or any of its successors or assigns (i) shall merge or consolidate with or merge into any other corporation or entity and shall not be the surviving or continuing corporation or entity of such consolidation or merger or (ii) shall transfer all or substantially all of their respective properties and assets as an entity in one or a series of related transactions to any Person, then in each such case, proper provisions shall be made so that the successors or assigns of ARYA shall assume all of the obligations set forth in this Section 5.15.

(e) The Company D&O Persons entitled to the indemnification, liability limitation, exculpation and insurance set forth in this Section 5.15 are intended to be third-party beneficiaries of this Section 5.15. This Section 5.15 shall survive the consummation of the transactions contemplated by this Agreement and shall be binding on all successors and assigns of ARYA.

Section 5.16 Post-Closing Directors and Officers.

(a) ARYA shall take all such action within its power as may be necessary or appropriate such that effective immediately after the Effective Time (i) the ARYA Board shall initially consist of ten (10) directors, which shall be divided into three (3) classes, designated Class I, II and III, with Class I consisting of four (4) directors, Class II consisting of three (3) directors and Class III consisting of three (3) directors (provided that, prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, the Company may in its sole discretion change which of the foregoing classes is to consist of three (3) or four (4) directors by notice to ARYA, which change shall be reflected in the Registration Statement / Proxy Statement mailed to the Pre-Closing ARYA Holders); (ii) the members of the ARYA Board are the individuals determined in accordance with Section 5.16(b) and Section 5.16(c); (iii) the members of the compensation committee, audit committee and nominating committee of the ARYA Board are the individuals determined in accordance with Section 5.16(d); and (iv) the officers of ARYA (the “Officers”) are the individuals determined in accordance with Section 5.16(e).

(b) Prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, the Company and ARYA shall mutually agree to one (1) individual to serve as a director on the ARYA Board immediately after the Effective Time (such agreement not to be unreasonably withheld, conditioned or delayed by either the Company or ARYA, as applicable) (the “Independent Designee”) which Independent Designee shall be reflected in the Registration Statement / Proxy Statement mailed to the Pre-Closing ARYA Holders.

(c) The eight (8) individuals identified on Section 5.16(c) of the Company Disclosure Schedules shall be directors on the ARYA Board immediately after the Effective Time (each, an “Initial Company Designee”). Prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, the Company may in its sole discretion designate one (1) additional individual to serve as a director on the ARYA Board immediately after the Effective Time (the “Other Company Designee”, and together with the Initial Company Designees, collectively, the “Company Designees”); provided that, if an individual is not designated to serve as the Other Company Designee prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, such unfilled director position shall be left vacant and shall be filled following the Effective Time in accordance with the Investor Rights Agreement and the Governing Documents of ARYA. Prior to the mailing of the

Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, the Company may in its sole discretion replace any Company Designee with any individual by notice to ARYA. Prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, the board of directors of the Company shall designate whether each individual who will serve on the ARYA Board immediately after the Effective Time will be designated as a member of Class I, Class II or Class III.

(d) Prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, (i) the board of directors of the Company may designate the Independent Designee to serve as a member of the compensation committee, the audit committee or the nominating committee of the ARYA Board immediately after the Effective Time, subject to ARYA's consent (not to be unreasonably withheld, conditioned or delayed) based on the qualifications of the Independent Designee, subject to applicable listing rules of Nasdaq and applicable Law, and (ii) the Company shall, subject to clause (i), designate each other director that will serve on the compensation committee, the audit committee and the nominating committee of the ARYA Board immediately after the Effective Time, based on the qualifications of each director, subject to applicable listing rules of Nasdaq and applicable Law.

(e) The individuals identified on Section 5.16(e) of the Company Disclosure Schedules shall be the Officers immediately after the Effective Time, with each such individual holding the title set forth opposite his or her name. In the event that such individuals identified on Section 5.16(e) of the Company Disclosure Schedules is unwilling or unable (whether due to death, disability, termination of service or otherwise) to serve as an Officer, then, prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, the Company may in its sole discretion replace such individual with another individual to serve as such Officer by amending Section 5.16(e) of the Company Disclosure Schedules to include such replacement individual as such Officer.

Section 5.17 PCAOB Financials.

(a) As promptly as reasonably practicable, the Company shall deliver to ARYA (i) the Closing Company Unaudited Financial Statements, and (ii) any other audited or unaudited consolidated balance sheets and the related audited or unaudited consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows of the Group Companies as of and for a year-to-date period ended as of the end of any other different fiscal quarter (and as of and for the same period from the previous fiscal year) or fiscal year (and as of and for the prior fiscal quarter), as applicable that is required to be included in the Registration Statement / Proxy Statement. All such financial statements, together with any audited or unaudited consolidated balance sheet and the related audited or unaudited consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows of the Group Companies as of and for a year-to-date period ended as of the end of a different fiscal quarter (and as of and for the same period from the previous fiscal year) or fiscal year (and as of and for the prior fiscal quarter) that is required to be included in the Registration Statement / Proxy Statement (A) will fairly present in all material respects the financial position of the Group Companies as at the date thereof, and the results of its operations, shareholders' equity and cash flows for the respective periods then ended (subject, in the case of any unaudited interim financial statements, to normal year-end audit adjustments (none of which is expected to be material) and the absence of footnotes), (B) will be prepared in conformity with GAAP applied on a consistent basis during the periods involved (except, in the case of any audited financial statements, as may be indicated in the notes thereto and subject, in the case of any unaudited financial statements, to normal year-end audit adjustments (none of which is expected to be material) and the absence of footnotes), (C) in the case of any audited financial statements, will be audited in accordance with the standards of the PCAOB and contain an unqualified report of the Company's auditor and (D) will comply in all material respects with the applicable accounting requirements and with the rules and regulations of the SEC, the Exchange Act and the Securities Act in effect as of the respective dates thereof (including Regulation S-X or Regulation S-K, as applicable).

(b) The Company shall use its reasonable best efforts (i) to assist, upon advance written notice, during normal business hours and in a manner such as to not unreasonably interfere with the normal operation of any member of such Group Company, ARYA in causing to be prepared in a timely manner any other financial information or statements (including customary pro forma financial statements) that are required to be included in the Registration Statement / Proxy Statement and any other filings to be made by ARYA with the SEC in connection with the transactions contemplated by this Agreement or any Ancillary Document and (ii) to obtain the consents of its auditors with respect thereto as may be required by applicable Law or requested by the SEC.

Section 5.18 ARYA Incentive Equity Plan; ARYA Employee Stock Purchase Plan. Prior to the effectiveness of the Registration Statement / Proxy Statement, the ARYA Board shall approve and adopt an equity incentive plan, in

substantially the form attached hereto as Exhibit H and with any changes or modifications thereto as the Company and ARYA may mutually agree (such agreement not to be unreasonably withheld, conditioned or delayed by either the Company or ARYA, as applicable) (the “ARYA Incentive Equity Plan”), in the manner prescribed under applicable Laws, effective as of one day prior to the Closing Date, reserving 12,737,876 ARYA Shares for grant thereunder plus the number of ARYA Shares issuable upon the exercise or conversion of the Rollover Options and Rollover RSU Awards. The ARYA Incentive Equity Plan will provide that the ARYA Shares reserved for issuance thereunder will automatically increase annually on the first day of each fiscal year beginning with the 2021 fiscal year in an amount equal to four percent (4%) of ARYA Shares outstanding on the last day of the immediately preceding fiscal year or such lesser amount as determined by the administrator of the ARYA Incentive Equity Plan. The Rollover Options corresponding to the Unvested Company Options and the Rollover RSU Awards shall, for the avoidance of doubt, be deemed to have been granted pursuant to the ARYA Incentive Equity Plan and shall reduce the number of ARYA Shares reserved for grant thereunder. Prior to the effectiveness of the Registration Statement / Proxy Statement, the ARYA Board shall approve and adopt an employee stock purchase plan, in substantially the form attached hereto as Exhibit I and with any changes or modifications thereto as the Company and ARYA may mutually agree (such agreement not to be unreasonably withheld, conditioned or delayed by either the Company or ARYA, as applicable) (the “ARYA Employee Stock Purchase Plan”), in the manner prescribed under Section 423 of the Code and other applicable Laws, effective as of one day prior to the Closing Date, reserving 1,655,924 ARYA Shares for grant thereunder. The ARYA Employee Stock Purchase Plan will provide that the ARYA Shares reserved for issuance thereunder will automatically increase annually on the first day of each fiscal year beginning with the 2021 fiscal year in an amount equal to one percent (1%) of ARYA Shares outstanding on the last day of the immediately preceding fiscal year or such lesser amount as determined by the administrator of the ARYA Employee Stock Purchase Plan.

Section 5.19 FIRPTA Certificates. At or prior to the Closing, the Company shall deliver, or cause to be delivered, to ARYA (a) a certificate, duly executed by the Company, complying with Treasury Regulations Section 1.1445-2(c)(3), together with evidence that the Company has provided notice to the Internal Revenue Service in accordance with the provisions of Treasury Regulations Section 1.897-2(h)(2), in each case, in a form and substance reasonably acceptable to ARYA, (b) a statement in accordance with the requirements of Treasury Regulations Section 1.1445-2(b)(2) from the Company certifying that it is not a “foreign person” as defined in Section 1445(f)(3) of the Code and (c) an IRS Form W-9 duly executed by the Company.

Section 5.20 Pre-Closing Series A Financing. Each of the Parties acknowledges and agrees that (a) the Bain Shareholder may satisfy a portion of the Bain PIPE Financing in an amount not to exceed the Pre-Closing Series A Purchase Price Amount via one or more Pre-Closing Series A Financings on the terms and subject to the conditions set forth in the Bain Subscription Agreement and (b) the Pre-Closing Series A Shares, the Pre-Closing Series A Purchase Price Amount and the Pre-Closing Series A Consideration will be treated in the manner provided in Section 2.1(b)(ix) and the applicable provisions of the Bain Subscription Agreement.

ARTICLE 6

CONDITIONS TO CONSUMMATION OF THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT

Section 6.1 Conditions to the Obligations of the Parties. The obligations of the Parties to consummate the transactions contemplated by this Agreement are subject to the satisfaction or, if permitted by applicable Law, waiver by the Party for whose benefit such condition exists of the following conditions:

- (a) the applicable waiting period under the HSR Act relating to the transactions contemplated by this Agreement shall have expired or been terminated;
- (b) no Order or Law issued by any court of competent jurisdiction or other Governmental Entity or other legal restraint or prohibition preventing the consummation of the transactions contemplated by this Agreement shall be in effect;
- (c) the Registration Statement / Proxy Statement shall have become effective in accordance with the provisions of the Securities Act, no stop order shall have been issued by the SEC and shall remain in effect with respect to the

Registration Statement / Proxy Statement, and no proceeding seeking such a stop order shall have been threatened or initiated by the SEC and remain pending;

(d) the Company Shareholder Written Consent shall have been obtained;

(e) the Required ARYA Shareholder Approval shall have been obtained; and

(f) after giving effect to the transactions contemplated hereby (including the PIPE Financing), ARYA shall have at least \$5,000,001 of net tangible assets (as determined in accordance with Rule 3a51-1(g)(1) of the Exchange Act) immediately after the Effective Time.

Section 6.2 Other Conditions to the Obligations of the ARYA Parties. The obligations of the ARYA Parties to consummate the transactions contemplated by this Agreement are subject to the satisfaction or, if permitted by applicable Law, waiver by ARYA (on behalf of itself and the other ARYA Parties) of the following further conditions:

(a) (i) the Company Fundamental Representations (other than the representations and warranties set forth in Section 3.2(a) and Section 3.8(a)) and the representations and warranties of the Company set forth in Section 3.16(n) shall be true and correct (without giving effect to any limitation as to “materiality” or “Company Material Adverse Effect” or any similar limitation set forth herein) in all material respects as of the Closing Date, as though made on and as of the Closing Date (except to the extent that any such representation and warranty is made as of an earlier date, in which case such representation and warranty shall be true and correct in all material respects as of such earlier date), (ii) the representations and warranties set forth in Section 3.2(a) shall be true and correct in all respects (except for *de minimis* inaccuracies) as of the Closing Date, as though made on and as of the Closing Date (except to the extent that any such representation and warranty is made as of an earlier date, in which case such representation and warranty shall be true and correct in all respects (except for *de minimis* inaccuracies) as of such earlier date), (iii) the representations and warranties set forth in Section 3.8(a) shall be true and correct in all respects as of the Closing Date, as though made on and as of the Closing Date (except to the extent that any such representation and warranty is made as of an earlier date, in which case such representation and warranty shall be true and correct in all respects as of such earlier date); provided, however, that this clause (iii) shall be deemed to be satisfied if no Company Material Adverse Effect is continuing, and (iv) the representations and warranties of the Company set forth in Article 3 (other than the Company Fundamental Representations and the representations and warranties of the Company set forth in Section 3.16(n)) shall be true and correct (without giving effect to any limitation as to “materiality” or “Company Material Adverse Effect” or any similar limitation set forth herein) in all respects as of the Closing Date, as though made on and as of the Closing Date (except to the extent that any such representation and warranty is made as of an earlier date, in which case such representation and warranty shall be true and correct in all respects as of such earlier date), except where the failure of such representations and warranties to be true and correct, taken as a whole, does not cause a Company Material Adverse Effect;

(b) the Company shall have performed and complied in all material respects with the covenants and agreements required to be performed or complied with by the Company under this Agreement at or prior to the Closing;

(c) since the date of this Agreement, no Company Material Adverse Effect has occurred that is continuing;

(d) at or prior to the Closing, the Company shall have delivered, or caused to be delivered, to ARYA the following documents:

(i) a certificate duly executed by an authorized officer of the Company, dated as of the Closing Date, to the effect that the conditions specified in Section 6.2(a), Section 6.2(b) and Section 6.2(c) are satisfied, in a form and substance reasonably satisfactory to ARYA; and

(ii) the Investor Rights Agreement duly executed by the Bain Shareholder and the Pfizer Shareholder.

Section 6.3 Other Conditions to the Obligations of the Company. The obligations of the Company to consummate the transactions contemplated by this Agreement are subject to the satisfaction or, if permitted by applicable Law, waiver by the Company of the following further conditions:

(a) (i) the ARYA Fundamental Representations (other than the representations and warranties set forth in Section 4.6(a)) and the representations and warranties of the ARYA Parties set forth in Section 4.15(h) shall be true and correct in all material respects as of the Closing Date, as though made on and as of the Closing Date (except to the extent that any such representation and warranty is made as of an earlier date, in which case such representation and warranty shall be true and correct in all material respects as of such earlier date), (ii) the representations and warranties set forth in Section 4.6(a) shall be true and correct in all respects (except for *de minimis* inaccuracies) as of the Closing Date, as though made on and as of the Closing Date (except to the extent that any such representation and warranty is made as of an earlier date, in which case such representation and warranty shall be true and correct in all respects (except for *de minimis* inaccuracies) as of such earlier date), (iii) the representations and warranties of the ARYA Parties (other than the ARYA Fundamental Representations and the representations and warranties of the ARYA Parties set forth in Section 4.15(h)) contained in Article 4 of this Agreement shall be true and correct (without giving effect to any limitation as to “materiality” or “ARYA Material Adverse Effect” or any similar limitation set forth herein) in all respects as of the Closing Date, as though made on and as of the Closing Date (except to the extent that any such representation and warranty is made as of an earlier date, in which case such representation and

warranty shall be true and correct as of such earlier date), except where the failure of such representations and warranties to be true and correct, taken as a whole, does not cause an ARYA Material Adverse Effect;

(b) the ARYA Parties shall have performed and complied in all material respects with the covenants and agreements required to be performed or complied with by them under this Agreement at or prior to the Closing;

(c) the Aggregate Transaction Proceeds shall be equal to or greater than \$250,000,000;

(d) ARYA's initial listing application with Nasdaq in connection with the transactions contemplated by this Agreement shall have been approved and, immediately following the Effective Time, ARYA shall satisfy any applicable initial and continuing listing requirements of Nasdaq, and ARYA shall not have received any notice of non-compliance therewith that has not been cured or would not be cured at or immediately following the Effective Time, and the ARYA Shares (after giving effect, for the avoidance of doubt, to the Domestication and, including, for the avoidance of doubt, the ARYA Shares to be issued pursuant to the Merger) shall have been approved for listing on Nasdaq;

(e) immediately following the Effective Time, to the knowledge of ARYA, no single beneficial owner of ARYA Shares (other than the Bain Shareholder, the Pfizer Shareholder or the Perceptive Shareholders) shall own in excess of 9.9% of the voting shares of ARYA, and no three beneficial owners of ARYA Shares (excluding the Bain Shareholder, the Pfizer Shareholder and the Perceptive Shareholders) shall own in excess of 25% of the voting shares of ARYA;

(f) the ARYA Board shall consist of the number of directors, and be comprised of the individuals, determined pursuant to Section 5.16(a)(i) and (ii);

(g) the Domestication shall have been consummated on the Closing Date prior to the Effective Time;

(h) at or prior to the Closing, ARYA shall have delivered, or caused to be delivered, the following documents to the Company:

(i) a certificate duly executed by an authorized officer of ARYA, dated as of the Closing Date, to the effect that the conditions specified in Section 6.3(a) and Section 6.3(b) are satisfied, in a form and substance reasonably satisfactory to the Company; and

(ii) the Investors Rights Agreement duly executed by ARYA and the Perceptive Shareholders.

Section 6.4 Frustration of Closing Conditions. The Company may not rely on the failure of any condition set forth in this Article 6 to be satisfied if such failure was proximately caused by the Company's failure to use reasonable best efforts to cause the Closing to occur, as required by Section 5.2. None of the ARYA Parties may rely on the failure of any condition set forth in this Article 6 to be satisfied if such failure was proximately caused by an ARYA Party's failure to use reasonable best efforts to cause the Closing to occur, as required by Section 5.2.

ARTICLE 7 TERMINATION

Section 7.1 Termination. This Agreement may be terminated and the transactions contemplated by this Agreement may be abandoned at any time prior to the Closing:

(a) by mutual written consent of ARYA and the Company;

(b) by ARYA, if any of the representations or warranties set forth in Article 3 shall not be true and correct or if the Company has failed to perform any covenant or agreement on the part of the Company set forth in this Agreement (including an obligation to consummate the Closing) such that the condition to Closing set forth in either Section 6.2(a) or Section 6.2(b) could not be satisfied and the breach or breaches causing such representations or warranties not to be true and correct, or the failures to perform any covenant or agreement, as applicable, is (or are) not cured or cannot be cured within the earlier of (i) thirty (30) days after written notice thereof is delivered to the Company by ARYA, and (ii) the Termination Date; provided, however, that none of the ARYA Parties is then in breach of this Agreement so as to prevent the condition to Closing set forth in either Section 6.3(a) or Section 6.3(b) from being satisfied;

(c) by the Company, if any of the representations or warranties set forth in Article 4 shall not be true and correct or if any ARYA Party has failed to perform any covenant or agreement on the part of such applicable ARYA Party set forth in this Agreement (including an obligation to consummate the Closing) such that the condition to Closing set forth in either Section 6.3(a) or Section 6.3(b) could not be satisfied and the breach or breaches causing such representations or warranties not to be true and correct, or the failures to perform any covenant or agreement, as applicable, is (or are) not cured or cannot be cured within the earlier of (i) thirty (30) days after written notice thereof is delivered to ARYA by the Company and (ii) the Termination Date; provided, however, the Company is not then in breach of this Agreement so as to prevent the condition to Closing set forth in Section 6.2(a) or Section 6.2(b) from being satisfied;

(d) by either ARYA or the Company, if the transactions contemplated by this Agreement shall not have been consummated on or prior to December 31, 2020 (the "Termination Date"); provided, that (i) the right to terminate this Agreement pursuant to this Section 7.1(d) shall not be available to ARYA if any ARYA Party's breach of any of its covenants or obligations under this Agreement shall have proximately caused the failure to consummate the transactions contemplated by this Agreement on or before the Termination Date, and (ii) the right to terminate this Agreement pursuant to this Section 7.1(d) shall not be available to the Company if the Company's breach of its covenants or obligations under this Agreement shall have proximately caused the failure to consummate the transactions contemplated by this Agreement on or before the Termination Date;

(e) by either ARYA or the Company, if any Governmental Entity shall have issued an Order or taken any other action permanently enjoining, restraining or otherwise prohibiting the transactions contemplated by this Agreement and such Order or other action shall have become final and nonappealable;

(f) by either ARYA or the Company if the ARYA Shareholders Meeting has been held (including any adjournment thereof), has concluded, ARYA's shareholders have duly voted and the Required ARYA Shareholder Approval was not obtained; or

(g) by ARYA, if the Company does not deliver, or cause to be delivered to ARYA (i) a Transaction Support Agreement duly executed by each Supporting Company Shareholder in accordance with Section 5.13(a) on or prior to the Transaction Support Agreement Deadline or (ii) the Company Shareholder Written Consent in accordance with Section 5.13(b) on or prior to the Company Shareholder Written Consent Deadline.

Section 7.2 Effect of Termination. In the event of the termination of this Agreement pursuant to Section 7.1, this entire Agreement shall forthwith become void (and there shall be no Liability or obligation on the part of the Parties and their respective Non-Party Affiliates) with the exception of Section 5.3(a), this Section 7.2, Article 8 and Article 1 (to the extent related to the foregoing), each of which shall survive such termination and remain valid and binding obligations of the Parties and (b) the Confidentiality Agreements, which shall survive such termination and remain valid and binding obligations of the parties thereto in accordance with their respective terms. Notwithstanding the foregoing or anything to the contrary herein, the termination of this Agreement pursuant to Section 7.1 shall not affect (i) any Liability on the part of any Party for any Willful Breach of any covenant or agreement set forth in this Agreement prior to such termination or Fraud or (ii) any Person's Liability under any Subscription Agreement, any

Confidentiality Agreement, any Transaction Support Agreement, any ARYA Shareholder Support Agreement or the Sponsor Letter Agreement to which he, she or it is a party to the extent arising from a claim against such Person by another Person party to such agreement on the terms and subject to the conditions thereunder.

ARTICLE 8 MISCELLANEOUS

Section 8.1 Non-Survival. Other than those representations, warranties and covenants set forth in Sections 2.1, 2.5, 3.24, 3.25, 4.16 and 4.18, each of which shall survive following the Effective Time, or as otherwise provided in the last sentence of this Section 8.1, each of the representations and warranties, and each of the agreements and covenants (to the extent such agreement or covenant contemplates or requires performance at or prior to the Effective Time), of the Parties set forth in this Agreement, shall terminate at the Effective Time, such that no claim for breach of any such representation, warranty, agreement or covenant, detrimental reliance or other right or remedy (whether in contract, in tort, at law, in equity or otherwise) may be brought with respect thereto after the Effective Time against any Party, any Company Non-Party Affiliate or any ARYA Non-Party Affiliate. Each covenant and agreement contained herein that, by its terms, expressly contemplates performance after the Effective Time shall so survive the Effective Time in accordance with its terms, and each covenant and agreement contained in any Ancillary Document that, by its terms, expressly contemplates performance after the Effective Time shall so survive the Effective Time in accordance with its terms and any other provision in any Ancillary Document that expressly survives the Effective Time shall so survive the Effective Time in accordance with the terms of such Ancillary Document.

Section 8.2 Entire Agreement; Assignment. This Agreement (together with the Ancillary Documents) constitutes the entire agreement among the Parties with respect to the subject matter hereof and supersedes all other prior agreements and understandings, both written and oral, among the Parties with respect to the subject matter hereof. This Agreement may not be assigned by any Party (whether by operation of law or otherwise) without the prior written consent of (a) ARYA and the Company prior to Closing and (b) ARYA and the Sponsor after the Closing. Any attempted assignment of this Agreement not in accordance with the terms of this Section 8.2 shall be void.

Section 8.3 Amendment. This Agreement may be amended or modified only by a written agreement executed and delivered by (a) ARYA and the Company prior to the Closing and (b) ARYA and the Sponsor after the Closing. This Agreement may not be modified or amended except as provided in the immediately preceding sentence and any purported amendment by any Party or Parties effected in a manner which does not comply with this Section 8.3 shall be void, *ab initio*.

Section 8.4 Notices. All notices, requests, claims, demands and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given) by delivery in person, by e-mail (having obtained electronic delivery confirmation thereof (i.e., an electronic record of the sender that the e-mail was sent to the intended recipient thereof without an “error” or similar message that such e-mail was not received by such intended recipient)), or by registered or certified mail (postage prepaid, return receipt requested) (upon receipt thereof) to the other Parties as follows:

(a) If to any ARYA Party, to:

c/o ARYA Science Acquisition Corp.
51 Astor Place, 10th Floor
New York, NY 10003
Attention: Michael Altman
Konstantin Poukalov
E-mail: [Redacted]
[Redacted]

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
601 Lexington Avenue
New York, NY 10022
Attention: Jonathan L. Davis, P.C.
Christian Nagler
Ryan Brissette
E-mail: [Redacted]
[Redacted]
[Redacted]

(b) If to the Company, to:

Cerevel Therapeutics, Inc.
131 Dartmouth Street, Suite 502
Boston, MA 02116
Attention: Tony Coles
Bryan Phillips
Email: [Redacted]
[Redacted]

with a copy (which shall not constitute notice) to:

Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
Attention: Stuart Cable
Jocelyn M. Arel
Daniel J. Espinoza
E-mail: [Redacted]
[Redacted]
[Redacted]

with a copy (which shall not constitute notice) to:

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199
Attention: Michael Beauvais
Thomas Holden
Laura Steinke
E-mail: [Redacted]
[Redacted]
[Redacted]

or to such other address as the Party to whom notice is given may have previously furnished to the others in writing in the manner set forth above.

Section 8.5 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of the law of any jurisdiction other than the State of Delaware (except that the Cayman Islands Act shall also apply to the Domestication).

Section 8.6 Fees and Expenses. Except as otherwise set forth in this Agreement, all fees and expenses incurred in connection with this Agreement, the Ancillary Documents and the transactions contemplated hereby and thereby, including the fees and disbursements of counsel, financial advisors and accountants, shall be paid by the Party incurring such fees or expenses; provided that, for the avoidance of doubt, (a) if this Agreement is terminated in accordance with its terms, the Company shall pay, or cause to be paid, all Unpaid Company Expenses and ARYA shall pay, or cause to be paid, all Unpaid ARYA Expenses and (b) if the Closing occurs, then ARYA shall pay, or cause to be paid, all Unpaid Company Expenses and all Unpaid ARYA Expenses.

Section 8.7 Construction; Interpretation. The term “this Agreement” means this Business Combination Agreement together with the Schedules and Exhibits hereto, as the same may from time to time be amended, modified, supplemented or restated in accordance with the terms hereof. The headings set forth in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement. No Party, nor its respective counsel, shall be deemed the drafter of this Agreement for purposes of construing the provisions hereof, and all provisions of this Agreement shall be construed according to their fair meaning and not strictly for or against any Party. Unless otherwise indicated to the contrary herein by the context or use thereof: (a) the words, “herein,” “hereto,” “hereof” and words of similar import refer to this Agreement as a whole, including the Schedules and Exhibits, and not to any particular section, subsection, paragraph, subparagraph or clause set forth in this Agreement; (b) masculine gender shall also include the feminine and neutral genders, and vice versa; (c) words importing the singular shall also include the plural, and vice versa; (d) the words “include,” “includes” or “including” shall be deemed to be followed by the words “without limitation”; (e) references to “\$” or “dollar” or “US\$” shall be references to United States dollars; (f) the word “or” is disjunctive but not necessarily exclusive; (g) the words “writing,” “written” and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form; (h) the word “day” means calendar day unless Business Day is expressly specified; (i) the word “extent” in the phrase “to the extent” means the degree to which a subject or other thing extends, and such phrase shall not mean simply “if”; (j) all references to Articles, Sections, Exhibits or Schedules are to Articles, Sections, Exhibits and Schedules of this Agreement; (k) the words “provided” or “made available” or words of similar import (regardless of whether capitalized or not) shall mean, when used with reference to documents or other materials required to be provided or made available to ARYA, any documents or other materials posted to the electronic data room located www.dfsvenue.com under the project name “Project Cassidy” as of 5:00 p.m., Eastern Time, at least one (1) day prior to the date of this Agreement; (l) all references to any Law will be to such Law as amended, supplemented or otherwise modified or re-enacted from time to time; and (m) all references to any Contract are to that Contract as amended or modified from time to time in accordance with the terms thereof (subject to any restrictions on amendments or modifications set forth in this Agreement). If any action under this Agreement is required to be done or taken on a day that is not a Business Day, then such action shall be required to be done or taken not on such day but on the first succeeding Business Day thereafter.

Section 8.8 Exhibits and Schedules. All Exhibits and Schedules, or documents expressly incorporated into this Agreement, are hereby incorporated into this Agreement and are hereby made a part hereof as if set out in full in this Agreement. The Schedules shall be arranged in sections and subsections corresponding to the numbered and lettered Sections and subsections set forth in this Agreement. Any item disclosed in the Company Disclosure Schedules or in the ARYA Disclosure Schedules corresponding to any Section or subsection of Article 3 (in the case of the Company Disclosure Schedules) or Article 4 (in the case of the ARYA Disclosure Schedules) shall be deemed to have been disclosed with respect to every other section and subsection of Article 3 (in the case of the Company Disclosure Schedules) or Article 4 (in the case of the ARYA Disclosure Schedules), as applicable, where the relevance of such disclosure to such other Section or subsection is reasonably apparent on the face of the disclosure. The information and disclosures set forth in the Schedules that correspond to the section or subsections of Article 3 or Article 4 may not be limited to matters required to be disclosed in the Schedules, and any such additional information or disclosure is for informational purposes only and does not necessarily include other matters of a similar nature.

Section 8.9 Parties in Interest. This Agreement shall be binding upon and inure solely to the benefit of each Party and its successors and permitted assigns and, except as provided in Section 5.14, Section 5.15 and the two subsequent sentences of this Section 8.9, nothing in this Agreement, express or implied, is intended to or shall confer upon any other Person any rights, benefits or remedies of any nature whatsoever under or by reason of this Agreement. The Sponsor shall be an express third-party beneficiary of Section 8.2, Section 8.3, Section 8.14 and this

Section 8.9 (to the extent related to the foregoing). Each of the Non-Party Affiliates shall be an express third-party beneficiary of Section 8.13 and this Section 8.9 (to the extent related to the foregoing).

Section 8.10 Severability. Whenever possible, each provision of this Agreement will be interpreted in such a manner as to be effective and valid under applicable Law, but if any term or other provision of this Agreement is held to be invalid, illegal or unenforceable under applicable Law, all other provisions of this Agreement shall remain in full force and effect so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any Party. Upon such determination that any term or other provision of this Agreement is invalid, illegal or unenforceable under applicable Law, the Parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the Parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby are consummated as originally contemplated to the greatest extent possible.

Section 8.11 Counterparts; Electronic Signatures. This Agreement and each Ancillary Document (including any of the closing deliverables contemplated hereby) may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same agreement. Delivery of an executed counterpart of a signature page to this Agreement or any Ancillary Document (including any of the closing deliverables contemplated hereby) by e-mail, or scanned pages shall be effective as delivery of a manually executed counterpart to this Agreement or any such Ancillary Document.

Section 8.12 Knowledge of Company; Knowledge of ARYA. For all purposes of this Agreement, the phrase “to the Company’s knowledge” and “known by the Company” and any derivations thereof shall mean as of the applicable date, the actual knowledge of the individuals set forth on Section 8.12(a) of the Company Disclosure Schedules, assuming reasonable due inquiry and investigation of his or her direct reports. For all purposes of this Agreement, the phrase “to ARYA’s knowledge” and “to the knowledge of ARYA” and any derivations thereof shall mean as of the applicable date, the actual knowledge of the individuals set forth on Section 8.12(b) of the ARYA Disclosure Schedules, assuming reasonable due inquiry and investigation of his or her direct reports. For the avoidance of doubt, none of the individuals set forth on Section 8.12(a) of the Company Disclosure Schedules or Section 8.12(b) of the ARYA Disclosure Schedules shall have any personal Liability or obligations regarding such knowledge.

Section 8.13 No Recourse. Except for claims pursuant to any Ancillary Document by any party(ies) thereto against any Company Non-Party Affiliate or any ARYA Non-Party Affiliate (each, a “Non-Party Affiliate”), and then solely with respect to claims against the Non-Party Affiliates that are party to the applicable Ancillary Document, each Party agrees on behalf of itself and on behalf of the Company Non-Party Affiliates, in the case of the Company, and the ARYA Non-Party Affiliates, in the case of ARYA, that (a) this Agreement may only be enforced against, and any action for breach of this Agreement may only be made against, the Parties, and no claims of any nature whatsoever arising under or relating to this Agreement, the negotiation hereof or its subject matter, or the transactions contemplated hereby shall be asserted against any Non-Party Affiliate, and (b) none of the Non-Party Affiliates shall have any Liability arising out of or relating to this Agreement, the negotiation hereof or its subject matter, or the transactions contemplated hereby, including with respect to any claim (whether in tort, contract or otherwise) for breach of this Agreement or in respect of any written or oral representations made or alleged to be made in connection herewith, as expressly provided herein, or for any actual or alleged inaccuracies, misstatements or omissions with respect to any information or materials of any kind furnished by the Company, ARYA or any Non-Party Affiliate concerning any Group Company, any ARYA Party, this Agreement or the transactions contemplated hereby.

Section 8.14 Extension; Waiver. The Company prior to the Closing and the Company and the Sponsor after the Closing may (a) extend the time for the performance of any of the obligations or other acts of the ARYA Parties set forth herein, (b) waive any inaccuracies in the representations and warranties of the ARYA Parties set forth herein or (c) waive compliance by the ARYA Parties with any of the agreements or conditions set forth herein. ARYA may (i) extend the time for the performance of any of the obligations or other acts of the Company, set forth herein, (ii) waive any inaccuracies in the representations and warranties of the Company set forth herein or (iii) waive compliance by the Company with any of the agreements or conditions set forth herein. Any agreement on the part of any such Party to any such extension or waiver shall be valid only if set forth in a written instrument signed on behalf of such Party. Any waiver of any term or condition shall not be construed as a waiver of any subsequent

breach or a subsequent waiver of the same term or condition, or a waiver of any other term or condition of this Agreement. The failure of any Party to assert any of its rights hereunder shall not constitute a waiver of such rights.

Section 8.15 Waiver of Jury Trial. THE PARTIES EACH HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY RIGHT TO TRIAL BY JURY OF ANY PROCEEDING, CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION (I) ARISING UNDER THIS AGREEMENT OR UNDER ANY ANCILLARY DOCUMENT OR (II) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES IN RESPECT OF THIS AGREEMENT OR ANY ANCILLARY DOCUMENT OR ANY OF THE TRANSACTIONS RELATED HERETO OR THERETO OR ANY FINANCING IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED HEREBY OR ANY OF THE TRANSACTIONS CONTEMPLATED THEREBY, IN EACH CASE, WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER IN CONTRACT, TORT, EQUITY, OR OTHERWISE. THE PARTIES EACH HEREBY AGREES AND CONSENTS THAT ANY SUCH PROCEEDING, CLAIM, DEMAND, ACTION OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY AND THAT THE PARTIES MAY FILE AN ORIGINAL COUNTERPART OF A COPY OF THIS AGREEMENT WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE PARTIES HERETO TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY. EACH PARTY CERTIFIES AND ACKNOWLEDGES THAT (A) NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER, (B) EACH SUCH PARTY UNDERSTANDS AND HAS CONSIDERED THE IMPLICATIONS OF THIS WAIVER, (C) EACH SUCH PARTY MAKES THIS WAIVER VOLUNTARILY AND (D) EACH SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 8.15.

Section 8.16 Submission to Jurisdiction. Each of the Parties irrevocably and unconditionally submits to the exclusive jurisdiction of the Chancery Court of the State of Delaware (or, if the Chancery Court of the State of Delaware declines to accept jurisdiction, any state or federal court within State of New York, New York County), for the purposes of any Proceeding, claim, demand, action or cause of action (a) arising under this Agreement or under any Ancillary Document or (b) in any way connected with or related or incidental to the dealings of the Parties in respect of this Agreement or any Ancillary Document or any of the transactions contemplated hereby or any of the transactions contemplated thereby, and irrevocably and unconditionally waives any objection to the laying of venue of any such Proceeding in any such court, and further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such Proceeding has been brought in an inconvenient forum. Each Party hereby irrevocably and unconditionally waives, and agrees not to assert, by way of motion or as a defense, counterclaim or otherwise, in any Proceeding claim, demand, action or cause of action against such Party (i) arising under this Agreement or under any Ancillary Document or (ii) in any way connected with or related or incidental to the dealings of the Parties in respect of this Agreement or any Ancillary Document or any of the transactions contemplated hereby or any of the transactions contemplated thereby, (A) any claim that such Party is not personally subject to the jurisdiction of the courts as described in this Section 8.16 for any reason, (B) that such Party or such Party's property is exempt or immune from the jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise) and (C) that (x) the Proceeding, claim, demand, action or cause of action in any such court is brought against such Party in an inconvenient forum, (y) the venue of such Proceeding, claim, demand, action or cause of action against such Party is improper or (z) this Agreement, or the subject matter hereof, may not be enforced against such Party in or by such courts. Each Party agrees that service of any process, summons, notice or document by registered mail to such party's respective address set forth in Section 8.4 shall be effective service of process for any such Proceeding, claim, demand, action or cause of action.

Section 8.17 Remedies. Except as otherwise expressly provided herein, any and all remedies provided herein will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such Party, and the exercise by a Party of any one remedy will not preclude the exercise of any other remedy. The Parties agree that irreparable damage for which monetary damages, even if available, would not be an adequate remedy, would occur in the event that the Parties do not perform their respective obligations under the provisions of this Agreement (including failing to take such actions as are required of them hereunder to consummate the transactions contemplated by this Agreement) in accordance with their specific terms or otherwise breach such provisions. It is

accordingly agreed that the Parties shall be entitled to seek an injunction or injunctions, specific performance and other equitable relief to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement, in each case, without posting a bond or undertaking and without proof of damages and this being in addition to any other remedy to which they are entitled at law or in equity. Each of the Parties agrees that it will not oppose the granting of an injunction, specific performance and other equitable relief when expressly available pursuant to the terms of this Agreement on the basis that the other parties have an adequate remedy at law or an award of specific performance is not an appropriate remedy for any reason at law or equity.

Section 8.18 Trust Account Waiver. Reference is made to the final prospectus of ARYA, filed with the SEC (File No. 333-238488) on June 8, 2020 (the “Prospectus”). The Company acknowledges and agrees and understands that ARYA has established a trust account (the “Trust Account”) containing the proceeds of its initial public offering (the “IPO”) and from certain private placements occurring simultaneously with the IPO (including interest accrued from time to time thereon) for the benefit of ARYA’s public shareholders (including over-allotment shares acquired by ARYA’s underwriters, the “Public Shareholders”), and ARYA may disburse monies from the Trust Account only in the express circumstances described in the Prospectus. For and in consideration of ARYA entering into this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Company hereby agrees on behalf of itself and its Representatives that, notwithstanding the foregoing or anything to the contrary in this Agreement, none of the Company nor any of its Representatives does now or shall at any time hereafter have any right, title, interest or claim of any kind in or to any monies in the Trust Account or distributions therefrom, or make any claim against the Trust Account (including any distributions therefrom), regardless of whether such claim arises as a result of, in connection with or relating in any way to, this Agreement or any proposed or actual business relationship between ARYA or any of its Representatives, on the one hand, and, the Company or any of its Representatives, on the other hand, or any other matter, and regardless of whether such claim arises based on contract, tort, equity or any other theory of legal liability (any and all such claims are collectively referred to hereafter as the “Trust Account Released Claims”). The Company, on its own behalf and on behalf of its Representatives, hereby irrevocably waives any Trust Account Released Claims that it or any of its Representatives may have against the Trust Account (including any distributions therefrom) now or in the future as a result of, or arising out of, any negotiations, or Contracts with ARYA or its Representatives and will not seek recourse against the Trust Account (including any distributions therefrom) for any reason whatsoever (including for an alleged breach of any agreement with ARYA or its Affiliates).

* * * * *

IN WITNESS WHEREOF, each of the Parties has caused this Business Combination Agreement to be duly executed on its behalf as of the day and year first above written.

ARYA SCIENCES ACQUISITION CORP II

By: /s/ Adam Stone
Name: Adam Stone
Title: Chief Executive Officer

CASSIDY MERGER SUB 1, INC.

By: /s/ Konstantin Poukalov
Name: Konstantin Poukalov
Title: Chief Business Officer and Secretary

CEREVEL THERAPEUTICS, INC.

By: /s/ N. Anthony Coles
Name: N. Anthony Coles
Title: Chief Executive Officer

[Signature Page to Business Combination Agreement]

Annex A

Other Investors

Annex B

Supporting Company Shareholders

Annex C

Required Governing Documents Proposals

The following Governing Document Proposals are Required Governing Document Proposals:

- to approve the change in the authorized share capital of ARYA from US\$50,000 divided into (i) 479,000,000 Class A ordinary shares, par value \$0.0001 per share, 20,000,000 Class B ordinary shares, par value \$0.0001 per share and 1,000,000 preference shares, par value \$0.0001 per share, to (ii) 500,000,000 shares of common stock, par value \$0.0001 per share, of New Cerevel and 10,000,000 shares of preferred stock, par value \$0.0001 per share, of New Cerevel; and
- to authorize all other changes necessary or, as mutually agreed in good faith by ARYA and the Company, desirable in connection with the replacement of ARYA's Governing Documents existing prior to the Domestication with the proposed ARYA Certificate of Incorporation and the proposed ARYA Bylaws as part of the Domestication.

AMENDMENT NO. 1 TO BUSINESS COMBINATION AGREEMENT

This AMENDMENT NO. 1 TO BUSINESS COMBINATION AGREEMENT, dated as of October 2, 2020 (this “Amendment”), to the BUSINESS COMBINATION AGREEMENT (the “Agreement”), dated as of July 29, 2020, by and among ARYA Sciences Acquisition Corp II, a Cayman Islands exempted company (“ARYA”), Cassidy Merger Sub 1, Inc., a Delaware corporation, and Cerevel Therapeutics, Inc., a Delaware corporation (the “Company”). ARYA and the Company shall be referred to herein from time to time collectively as the “Parties”. Capitalized terms used but not otherwise defined herein have the meanings set forth in the Agreement.

WITNESSETH:

WHEREAS, ARYA and the Company have entered into the Agreement;

WHEREAS, pursuant to and in accordance with Section 8.3 of the Agreement, the Agreement may be amended or modified only by a written agreement executed and delivered by ARYA and the Company; and

WHEREAS, ARYA and the Company desire to amend the Agreement as set forth herein.

NOW, THEREFORE, in consideration of the rights and obligations contained herein, and for other good and valuable consideration, the adequacy of which is hereby acknowledged, the Parties agree as follows:

Section 1. Amendments to the Agreement.

(A) Section 5.16 of the Agreement is hereby amended by replacing paragraph (b) in its entirety with the following:

“(b) Prior to December 15, 2020, the Company and the Sponsor shall mutually agree to one (1) individual to serve as a director on the ARYA Board after the Effective Time (such agreement not to be unreasonably withheld, conditioned or delayed by either the Company or the Sponsor, as applicable) (the “Independent Designee”), which Independent Designee shall be appointed by the ARYA Board to serve as a director on the ARYA Board after the Effective Time promptly after such individual is mutually agreed to as provided in this Section 5.16(b).”

(B) Section 5.16 of the Agreement is hereby amended by replacing paragraph (d) in its entirety with the following:

“(d) (i) The board of directors of the Company (or, if the Independent Designee has not been mutually agreed prior to the Effective Time, the ARYA Board) may designate the Independent Designee to serve as a member of the compensation committee, the audit committee or the nominating committee of the ARYA Board after the Effective Time, subject to the Sponsor’s consent (not to be unreasonably withheld, conditioned or delayed) based on the qualifications of the Independent Designee, subject to applicable listing rules of Nasdaq and applicable Law, and (ii) prior to the mailing of the Registration Statement / Proxy Statement to the Pre-Closing ARYA Holders, the Company shall, subject to clause (i), designate each other director that will serve on the compensation committee, the audit committee and the nominating committee of the ARYA Board immediately after the Effective Time, based on the qualifications of each director, subject to applicable listing rules of Nasdaq and applicable Law.”

(C) Section 8.9 of the Agreement is hereby amended by replacing Section 8.9 in its entirety with the following:

“**Section 8.9 Parties in Interest.** This Agreement shall be binding upon and inure solely to the benefit of each Party and its successors and permitted assigns and, except as provided in Section 5.14, Section 5.15 and the two subsequent sentences of this Section 8.9, nothing in this Agreement, express or implied, is intended to or shall confer upon any other Person any rights, benefits or remedies of any nature whatsoever under or by reason of this Agreement. The Sponsor shall be an express third-party beneficiary of Section 5.16(b), Section 5.16(d), Section 8.2, Section 8.3, Section 8.14 and this Section 8.9 (to the extent related to the foregoing). Each of the Non-Party Affiliates shall be an express third-party beneficiary of Section 8.13 and this Section 8.9 (to the extent related to the foregoing).

Section 2. No Other Amendments. Each reference to “this Agreement,” “hereunder,” “hereof” and other similar references set forth in the Agreement and each reference to the Agreement in any other agreement, document or other instrument shall, in each case, refer to the Agreement as modified by this Amendment. Except as and to the extent expressly modified by this Amendment, the Agreement is not otherwise being amended, modified or supplemented and shall remain in full force and effect and is hereby in all respects ratified and confirmed, and the execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of any party under the Agreement.

Section 3. Miscellaneous Provisions. Sections 8.2 through 8.7, 8.10, 8.11, 8.13, 8.14, 8.15, 8.16, 8.17 and 8.18 of the Agreement shall apply to this Amendment *mutatis mutandis* and to the Agreement as modified by this Amendment, taken together as a single agreement, reflecting the terms as modified hereby.

[Signature Page Follows]

IN WITNESS WHEREOF each Party has hereunto caused this Amendment to be duly executed on its behalf as of the day and year first above written.

ARYA SCIENCES ACQUISITION CORP II

By: /s/ Adam Stone
Name: Adam Stone
Title: Chief Executive Officer

CEREVEL THERAPEUTICS, INC.

By: /s/ N. Anthony Coles
Name: N. Anthony Coles
Title: Chief Executive Officer

CERTIFICATE OF INCORPORATION
OF
CEREVEL THERAPEUTICS HOLDINGS, INC.

ARTICLE I

The name of the Corporation is Cerevel Therapeutics Holdings, Inc. (hereinafter called the “Corporation”).

ARTICLE II

The address of the Corporation’s registered office in the State of Delaware is 251 Little Falls Drive, Wilmington, New Castle County, Delaware 19808. The name of its registered agent at such address is Corporation Service Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

ARTICLE IV

Capital Stock

The total number of shares of capital stock which the Corporation shall have authority to issue is Five Hundred Ten Million (510,000,000) of which (i) Five Hundred Million (500,000,000) shares shall be a class designated as common stock, par value \$0.0001 per share (the “Common Stock”), and (ii) Ten Million (10,000,000) shares shall be a class designated as undesignated preferred stock, par value \$0.0001 per share (the “Undesignated Preferred Stock”).

Except as otherwise provided in any certificate of designations of any series of Undesignated Preferred Stock, the number of authorized shares of the class of Common Stock or Undesignated Preferred Stock may from time to time be increased or decreased (but not below the number of shares of such class outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of capital stock of the Corporation irrespective of the provisions of Section 242(b)(2) of the DGCL.

The powers, preferences and rights of, and the qualifications, limitations and restrictions upon, each class or series of stock shall be determined in accordance with, or as set forth below in, this Article IV.

A. Common Stock

Subject to all the rights, powers and preferences of the Undesignated Preferred Stock and except as provided by law or in this Certificate (or in any certificate of designations of any series of Undesignated Preferred Stock):

(a) the holders of the Common Stock shall have the exclusive right to vote for the election of directors of the Corporation (the “Directors”) and on all other matters requiring stockholder action, each outstanding share entitling the holder thereof to one vote on each matter properly submitted to the stockholders of the Corporation for their vote; provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Certificate (or on any amendment to a certificate of designations of any series of Undesignated Preferred Stock) that alters or changes the powers, preferences, rights or other terms of one or more outstanding series of Undesignated Preferred Stock if the holders of such affected series of Undesignated Preferred Stock are entitled to vote, either separately or together with the holders of one or more other such series,

on such amendment pursuant to this Certificate (or pursuant to a certificate of designations of any series of Undesignated Preferred Stock) or pursuant to the DGCL;

(b) dividends may be declared and paid or set apart for payment upon the Common Stock out of any assets or funds of the Corporation legally available for the payment of dividends, but only when and as declared by the Board of Directors or any authorized committee thereof; and

(c) upon the voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the net assets of the Corporation shall be distributed pro rata to the holders of the Common Stock.

B. Undesignated Preferred Stock

The Board of Directors or any authorized committee thereof is expressly authorized, to the fullest extent permitted by law, to provide by resolution or resolutions for, out of the unissued shares of Undesignated Preferred Stock, the issuance of the shares of Undesignated Preferred Stock in one or more series of such stock, and by filing a certificate of designations pursuant to applicable law of the State of Delaware, to establish or change from time to time the number of shares of each such series, and to fix the designations, powers, including voting powers, full or limited, or no voting powers, preferences and the relative, participating, optional or other special rights of the shares of each series and any qualifications, limitations and restrictions thereof. Except as otherwise provided by any certificate of designations of any series of Undesignated Preferred Stock then outstanding or by law, no holder of any series of Undesignated Preferred Stock, as such, shall be entitled to any voting powers in respect thereof.

ARTICLE V

The name and mailing address of the incorporator are as follows:

| <u>Name</u> | <u>Address</u> |
|---------------------|--|
| Konstantin Poukalov | 51 Astor Place, 10th Floor New York, NY 10002 |

ARTICLE VI

Stockholder Action

1. Action without Meeting. Except as may otherwise be provided by or pursuant to this Certificate (or any certificate of designations of any series of Undesignated Preferred Stock then outstanding) with respect to the holders of any series of Undesignated Preferred Stock then outstanding, any action required or permitted to be taken by the stockholders of the Corporation at any annual or special meeting of stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders and may not be taken or effected by a written consent of stockholders in lieu thereof. Notwithstanding anything herein to the contrary, the affirmative vote of not less than two thirds (2/3) of the outstanding shares of capital stock entitled to vote thereon, and the affirmative vote of not less than two thirds (2/3) of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of this Article VI, Section 1.

2. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Directors then in office, and special meetings of stockholders may not be called by any other person or persons. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation. Notwithstanding anything herein to the contrary, the affirmative vote of not less than two thirds (2/3) of the outstanding shares of capital stock entitled to vote thereon, and the affirmative

vote of not less than two thirds (2/3) of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of this Article VI, Section 2.

ARTICLE VII

Directors

1. General. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided herein or required by law.

2. Election of Directors. Election of Directors need not be by written ballot unless the By-laws of the Corporation (the “By-laws”) shall so provide.

3. Number of Directors; Term of Office. Subject to the terms of the Registration and Shareholder Rights Agreement, dated as of October 27, 2020, by and among the Corporation and certain of its stockholders (as amended, modified and/or supplemented from time to time, the “Registration and Shareholder Rights Agreement”), the initial number of Directors of the Corporation shall be eight (8), and after the date hereof may be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The Directors, other than those who may be elected by the holders of any series of Undesignated Preferred Stock, shall be classified, with respect to the term for which they severally hold office, into three classes. The initial Class I Directors of the Corporation shall be N. Anthony Coles, M.D., Morris Birnbaum, M.D., Ph.D. and Christopher Gordon; the initial Class II Directors of the Corporation shall be Douglas Giordano and Adam Koppel, M.D., Ph.D.; and the initial Class III Directors of the Corporation shall be Marijn Dekkers, Ph.D., Norbert Riedel, Ph.D. and Gabrielle Sulzberger. The initial Class I Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2021, the initial Class II Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2022, and the initial Class III Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2023. The mailing address of each person who is to serve initially as a director is c/o Cerevel Therapeutics Holdings, Inc., 131 Dartmouth Street, Suite 502, Boston, MA 02116. At each annual meeting of stockholders, Directors elected to succeed those Directors whose terms expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election. Notwithstanding the foregoing, the Directors elected to each class shall hold office until their successors are duly elected and qualified or until their earlier resignation, death or removal.

Notwithstanding the foregoing, whenever, pursuant to the provisions of Article IV of this Certificate, the holders of any one or more series of Undesignated Preferred Stock shall have the right, voting separately as a series or together with holders of other such series, to elect Directors at an annual or special meeting of stockholders, the election, term of office, filling of vacancies and other features of such directorships shall be governed by the terms of this Certificate and any certificate of designations applicable to such series.

Notwithstanding anything herein to the contrary, the affirmative vote of not less than two thirds (2/3) of the outstanding shares of capital stock entitled to vote thereon, and the affirmative vote of not less than two thirds (2/3) of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of this Article VII, Section 3.

4. Vacancies. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors and to fill vacancies in the Board of Directors relating thereto and subject to the terms of the Registration and Shareholder Rights Agreement, any and all vacancies in the Board of Directors, however occurring, including, without limitation, by reason of an increase in the size of the Board of Directors, or the death, resignation, disqualification or removal of a Director, shall be filled solely and exclusively by the affirmative vote of a majority of the remaining Directors then in office, even if less than a quorum of the Board of Directors, and not by the stockholders (except as otherwise provided in the Registration and Shareholder Rights Agreement). Any Director appointed in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of Directors in which the new directorship was created or the vacancy occurred and until such Director’s successor shall have been duly elected and qualified or until his or her earlier resignation, death or removal. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors, when the number of Directors is increased or decreased, the Board of Directors shall, subject to Article VII, Section 3 hereof, determine

the class or classes to which the increased or decreased number of Directors shall be apportioned; provided, however, that no decrease in the number of Directors shall shorten the term of any incumbent Director. In the event of a vacancy in the Board of Directors, the remaining Directors, except as otherwise provided by law, shall exercise the powers of the full Board of Directors until the vacancy is filled.

5. Removal. Subject to the rights, if any, of any series of Undesignated Preferred Stock to elect Directors and to remove any Director whom the holders of any such series have the right to elect and subject to the terms of the Registration and Shareholder Rights Agreement, any Director (including persons elected by Directors to fill vacancies in the Board of Directors) may be removed from office (i) only with cause and (ii) only by the affirmative vote of the holders of not less than two thirds (2/3) of the outstanding shares of capital stock then entitled to vote at an election of Directors. At least forty-five (45) days prior to any annual or special meeting of stockholders at which it is proposed that any Director be removed from office, written notice of such proposed removal and the alleged grounds thereof shall be sent to the Director whose removal will be considered at the meeting.

ARTICLE VIII

Limitation of Liability

A Director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of his or her fiduciary duty as a Director, except for liability (a) for any breach of the Director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) under Section 174 of the DGCL or (d) for any transaction from which the Director derived an improper personal benefit. If the DGCL is amended after the effective date of this Certificate to authorize corporate action further eliminating or limiting the personal liability of Directors, then the liability of a Director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Any amendment, repeal or modification of this Article VIII by either of (i) the stockholders of the Corporation or (ii) an amendment to the DGCL, shall not adversely affect any right or protection existing at the time of such amendment, repeal or modification with respect to any acts or omissions occurring before such amendment, repeal or modification of a person serving as a Director at the time of such amendment, repeal or modification.

Notwithstanding anything herein to the contrary, the affirmative vote of not less than two thirds (2/3) of the outstanding shares of capital stock entitled to vote thereon, and the affirmative vote of not less than two thirds (2/3) of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of this Article VIII.

ARTICLE IX

Amendment of By-Laws

1. Amendment by Directors. Except as otherwise provided by law, the By-laws of the Corporation may be amended or repealed by the Board of Directors by the affirmative vote of a majority of the Directors then in office.

2. Amendment by Stockholders. Except as otherwise provided therein, the By-laws of the Corporation may be amended or repealed at any annual meeting of stockholders, or special meeting of stockholders called for such purpose, by the affirmative vote of not less than two thirds (2/3) of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting together as a single class; provided, however, that if the Board of Directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, such amendment or repeal shall only require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting together as a single class.

ARTICLE X

Amendment of Certificate of Incorporation

The Corporation reserves the right to amend or repeal this Certificate in the manner now or hereafter prescribed by statute and this Certificate, and all rights conferred upon stockholders herein are granted subject to this reservation. Except as otherwise required by this Certificate or by law, whenever any vote of the holders of capital stock of the Corporation is required to amend or repeal any provision of this Certificate, such amendment or repeal shall require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment or repeal, and the affirmative vote of the majority of the outstanding shares of each class entitled to vote thereon as a class, at a duly constituted meeting of stockholders called expressly for such purpose.

ARTICLE XI

Business Combinations

1. Opt Out of DGCL 203. The Corporation shall not be governed by Section 203 of the DGCL.
2. Limitations on Business Combinations. Notwithstanding the foregoing, the Corporation shall not engage in any business combination (as defined below), at any point in time at which the Corporation's Common Stock is registered under Sections 12(b) or 12(g) of the Securities Exchange Act of 1934, as amended, with any interested stockholder (as defined below) for a period of three (3) years following the time that such stockholder became an interested stockholder, unless:
 - (a) prior to such time, the Board of Directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder, or
 - (b) upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock (as defined below) of the Corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned by (i) persons who are directors and also officers or (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer, or
 - (c) at or subsequent to such time, the business combination is approved by the Board of Directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two thirds of the outstanding voting stock of the Corporation which is not owned by the interested stockholder.
3. Definitions. For purposes of this Article XI, references to:
 - (a) "affiliate" means a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, another person.
 - (b) "associate," when used to indicate a relationship with any person, means: (i) any corporation, partnership, unincorporated association or other entity of which such person is a director, officer or partner or is, directly or indirectly, the owner of 20% or more of any class of voting stock; (ii) any trust or other estate in which such person has at least a 20% beneficial interest or as to which such person serves as trustee or in a similar fiduciary capacity; and (iii) any relative or spouse of such person, or any relative of such spouse, who has the same residence as such person.
 - (c) "business combination," when used in reference to the Corporation and any interested stockholder of the Corporation, means:
 - (i) any merger or consolidation of the Corporation (other than a merger effected pursuant to Sections 253 or 267 the DGCL) or any direct or indirect majority-owned subsidiary of the Corporation (1) with the interested stockholder, or

(2) with any other corporation, partnership, unincorporated association or other entity if the merger or consolidation is caused by the interested stockholder and as a result of such merger or consolidation paragraph 2 of this Article XI is not applicable to the surviving entity;

(ii) any sale, lease, exchange, mortgage, pledge, transfer or other disposition (in one transaction or a series of transactions), except proportionately as a stockholder of the Corporation, to or with the interested stockholder, whether as part of a dissolution or otherwise, of assets of the Corporation or of any direct or indirect majority-owned subsidiary of the Corporation which assets have an aggregate market value equal to 10% or more of either the aggregate market value of all the assets of the Corporation determined on a consolidated basis or the aggregate market value of all the outstanding stock of the Corporation;

(iii) any transaction which results in the issuance or transfer by the Corporation or by any direct or indirect majority-owned subsidiary of the Corporation of any stock of the Corporation or of such subsidiary to the interested stockholder, except: (1) pursuant to the exercise, exchange or conversion of securities exercisable for, exchangeable for or convertible into stock of the Corporation or any such subsidiary which securities were outstanding prior to the time that the interested stockholder became such; (2) pursuant to a merger under Sections 251(g), 253 or 267 of the DGCL; (3) pursuant to a dividend or distribution paid or made, or the exercise, exchange or conversion of securities exercisable for, exchangeable for or convertible into stock of the Corporation or any such subsidiary which security is distributed, pro rata to all holders of a class or series of stock of the Corporation subsequent to the time the interested stockholder became such; (4) pursuant to an exchange offer by the Corporation to purchase stock made on the same terms to all holders of said stock; or (5) any issuance or transfer of stock by the Corporation; provided, however, that in no case under items (3)-(5) of this subsection (iii) shall there be an increase in the interested stockholder's proportionate share of the stock of any class or series of the Corporation or of the voting stock of the Corporation (except as a result of immaterial changes due to fractional share adjustments);

(iv) any transaction involving the Corporation or any direct or indirect majority-owned subsidiary of the Corporation which has the effect, directly or indirectly, of increasing the proportionate share of the stock of any class or series, or securities convertible into the stock of any class or series, of the Corporation or of any such subsidiary which is owned by the interested stockholder, except as a result of immaterial changes due to fractional share adjustments or as a result of any purchase or redemption of any shares of stock not caused, directly or indirectly, by the interested stockholder; or

(v) any receipt by the interested stockholder of the benefit, directly or indirectly (except proportionately as a stockholder of the Corporation), of any loans, advances, guarantees, pledges, or other financial benefits (other than those expressly permitted in subsections (i)-(iv) above) provided by or through the Corporation or any direct or indirect majority-owned subsidiary.

(d) "control," including the terms "controlling," "controlled by" and "under common control with," means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting stock, by contract, or otherwise. A person who is the owner of 20% or more of the outstanding voting stock of the Corporation, partnership, unincorporated association or other entity shall be presumed to have control of such entity, in the absence of proof by a preponderance of the evidence to the contrary. Notwithstanding the foregoing, a presumption of control shall not apply where such person holds voting stock, in good faith and not for the purpose of circumventing this Article XI, as an agent, bank, broker, nominee, custodian or trustee for one or more owners who do not individually or as a group have control of such entity.

(e) "interested stockholder" means any person (other than the Corporation or any direct or indirect majority-owned subsidiary of the Corporation) that (i) is the owner of 15% or more of the outstanding voting stock of the Corporation, or (ii) is an affiliate or associate of the Corporation and was the owner of 15% or more of the outstanding voting stock of the Corporation at any time within the three (3) year period immediately prior to the date on which it is sought to be determined whether such person is an interested stockholder, and the affiliates and associates of such person; provided, however, that the term "interested stockholder" shall not include (1) the sponsor entities, or (2) any person whose ownership of shares in excess of the 15% limitation set forth herein is the result of any action taken solely by the Corporation; provided that such person specified in this clause (2) shall be an interested stockholder if thereafter such person acquires additional shares of voting stock of the Corporation, except as a result of further corporate action not caused, directly or indirectly, by such person. For the purpose of

determining whether a person is an interested stockholder, the voting stock of the Corporation deemed to be outstanding shall include stock deemed to be owned by the person through application of the definition of “owner” below but shall not include any other unissued stock of the Corporation which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise.

(f) “owner,” including the terms “own” and “owned,” when used with respect to any stock, means a person that individually or with or through any of its affiliates or associates:

(i) beneficially owns such stock, directly or indirectly; or

(ii) has (1) the right to acquire such stock (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding, or upon the exercise of conversion rights, exchange rights, warrants or options, or otherwise; provided, however, that a person shall not be deemed the owner of stock tendered pursuant to a tender or exchange offer made by such person or any of such person’s affiliates or associates until such tendered stock is accepted for purchase or exchange; or (2) the right to vote such stock pursuant to any agreement, arrangement or understanding; provided, however, that a person shall not be deemed the owner of any stock because of such person’s right to vote such stock if the agreement, arrangement or understanding to vote such stock arises solely from a revocable proxy or consent given in response to a proxy or consent solicitation made to ten (10) or more persons; or

(iii) has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting (except voting pursuant to a revocable proxy or consent as described in item (2) of subsection (ii) above), or disposing of such stock with any other person that beneficially owns, or whose affiliates or associates beneficially own, directly or indirectly, such stock.

(g) “person” means any individual, corporation, partnership, unincorporated association or other entity.

(h) “sponsor entities” means, collectively, investment funds affiliated with Bain Capital Investors, LLC or Bain Capital Life Sciences Investors, LLC and their respective successors, transferees and affiliates.

(i) “stock” means, with respect to any corporation, capital stock and, with respect to any other entity, any equity interest.

(j) “transferees” means any person who becomes a beneficial owner of voting stock upon having purchased such shares from the investment funds affiliated with the sponsor entities or their respective affiliates, provided, however, that a purchaser of voting stock in a registered public offering shall not be a “transferee”.

(k) “voting stock” means stock of any class or series entitled to vote generally in the election of directors. Every reference to a percentage of voting stock in this Article XI shall refer to such percentage of the votes of such voting stock.

[End of Text]

I, the undersigned, being the sole incorporator hereinbefore named, for the purpose of forming a corporation in pursuance of the General Corporation Law of the State of Delaware, do make and file this Certificate, hereby declaring and certifying that the facts herein stated are true, and accordingly have hereunto set my hand this 27th day of October, 2020.

**CEREVEL THERAPEUTICS
HOLDINGS, INC.**

By: /s/ Konstantin Poukalov

Name: Konstantin Poukalov

Title: Sole Incorporator

[Signature Page to Cerevel Therapeutics Holdings, Inc. Certificate of Incorporation]

BY-LAWS
OF
CEREVEL THERAPEUTICS HOLDINGS, INC.

(the “Corporation”)

ARTICLE I

Stockholders

SECTION 1. Annual Meeting. The annual meeting of stockholders (any such meeting being referred to in these By-laws as an “Annual Meeting”) shall be held at the hour, date and place within or without the United States which is fixed by the Board of Directors, which time, date and place may subsequently be changed at any time by vote of the Board of Directors. If no Annual Meeting has been held for a period of thirteen (13) months after the Corporation’s last Annual Meeting, a special meeting in lieu thereof may be held, and such special meeting shall have, for the purposes of these By-laws or otherwise, all the force and effect of an Annual Meeting. Any and all references hereafter in these By-laws to an Annual Meeting or Annual Meetings also shall be deemed to refer to any special meeting(s) in lieu thereof.

SECTION 2. Notice of Stockholder Business and Nominations.

(a) Annual Meetings of Stockholders.

(1) Nominations of persons for election to the Board of Directors of the Corporation and the proposal of other business to be considered by the stockholders may be brought before an Annual Meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in this By-law, who is entitled to vote at the meeting, who is present (in person or by proxy) at the meeting and who complies with the notice procedures set forth in this By-law as to such nomination or business. For the avoidance of doubt, the foregoing clause (ii) shall be the exclusive means for a stockholder to bring nominations or business properly before an Annual Meeting (other than matters properly brought under Rule 14a-8 (or any successor rule) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)), and such stockholder must comply with the notice and other procedures set forth in Article I, Section 2(a)(2) and (3) of this By-law to bring such nominations or business properly before an Annual Meeting. In addition to the other requirements set forth in this By-law, for any proposal of business to be considered at an Annual Meeting, it must be a proper subject for action by stockholders of the Corporation under Delaware law.

(2) For nominations or other business to be properly brought before an Annual Meeting by a stockholder pursuant to clause (ii) of Article I, Section 2(a)(1) of this By-law, the stockholder must (i) have given Timely Notice (as defined below) thereof in writing to the Secretary of the Corporation, (ii) have provided any updates or supplements to such notice at the times and in the forms required by this By-law and (iii) together with the beneficial owner(s), if any, on whose behalf the nomination or business proposal is made, have acted in accordance with the representations set forth in the Solicitation Statement (as defined below) required by this By-law. To be timely, a stockholder’s written notice shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the one-year anniversary of the preceding year’s Annual Meeting; provided, however, that in the event the Annual Meeting is first convened more than thirty (30) days before or more than sixty (60) days after such anniversary date, or if no Annual Meeting were held in the preceding year, notice by the stockholder to be timely must be received by the Secretary of the Corporation not later than the close of business on the later of the ninetieth (90th) day prior to the scheduled date of such Annual Meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made (such notice within such time periods shall be referred to as “Timely Notice”). Notwithstanding anything to the contrary provided herein, for the first Annual Meeting following the initial public offering of common stock of the Corporation, a stockholder’s notice shall be timely if received by the Secretary at the principal executive offices of the Corporation not later than the close of

business on the later of the ninetieth (90th) day prior to the scheduled date of such Annual Meeting or the tenth (10th) day following the day on which public announcement of the date of such Annual Meeting is first made or sent by the Corporation. Such stockholder's Timely Notice shall set forth:

(A) as to each person whom the stockholder proposes to nominate for election or reelection as a director, (i) the name, age, business address and residence address of the nominee, (ii) the principal occupation or employment of the nominee, (iii) the class and number of shares of the Corporation that are held of record or are beneficially owned by the nominee and any derivative positions held or beneficially held by the nominee, (iv) whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of the nominee with respect to any securities of the Corporation, and a description of any other agreement, arrangement or understanding (including any short position or any borrowing or lending of shares), the effect or intent of which is to mitigate loss to, or to manage the risk or benefit of share price changes for, or to increase or decrease the voting power of the nominee, (v) a description of all arrangements or understandings between or among the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholder or concerning the nominee's potential service on the Board of Directors, (vi) a written statement executed by the nominee acknowledging that as a director of the corporation, the nominee will owe fiduciary duties under Delaware law with respect to the Corporation and its stockholders, and (vii) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected);

(B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, the text, if any, of any resolutions or By-law amendment proposed for adoption, and any material interest in such business of each Proposing Person (as defined below);

(C) (i) the name and address of the stockholder giving the notice, as they appear on the Corporation's books, and the names and addresses of the other Proposing Persons (if any) and (ii) as to each Proposing Person, the following information: (a) the class or series and number of all shares of capital stock of the Corporation which are, directly or indirectly, owned beneficially or of record by such Proposing Person or any of its affiliates or associates (as such terms are defined in Rule 12b-2 promulgated under the Exchange Act), including any shares of any class or series of capital stock of the Corporation as to which such Proposing Person or any of its affiliates or associates has a right to acquire beneficial ownership at any time in the future, (b) all Synthetic Equity Interests (as defined below) in which such Proposing Person or any of its affiliates or associates, directly or indirectly, holds an interest including a description of the material terms of each such Synthetic Equity Interest, including without limitation, identification of the counterparty to each such Synthetic Equity Interest and disclosure, for each such Synthetic Equity Interest, as to (x) whether or not such Synthetic Equity Interest conveys any voting rights, directly or indirectly, in such shares to such Proposing Person, (y) whether or not such Synthetic Equity Interest is required to be, or is capable of being, settled through delivery of such shares and (z) whether or not such Proposing Person and/or, to the extent known, the counterparty to such Synthetic Equity Interest has entered into other transactions that hedge or mitigate the economic effect of such Synthetic Equity Interest, (c) any proxy (other than a revocable proxy given in response to a public proxy solicitation made pursuant to, and in accordance with, the Exchange Act), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to, directly or indirectly, vote any shares of any class or series of capital stock of the Corporation, (d) any rights to dividends or other distributions on the shares of any class or series of capital stock of the Corporation, directly or indirectly, owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, and (e) any performance-related fees (other than an asset based fee) that such Proposing Person, directly or indirectly, is entitled to based on any increase or decrease in the value of shares of any class or series of capital stock of the Corporation or any Synthetic Equity Interests (the disclosures to be made pursuant to the foregoing clauses (a) through (e) are referred to, collectively, as "Material Ownership Interests") and (iii) a description of the material terms of all agreements, arrangements or understandings (whether or not in writing) entered into by any Proposing Person or any of its affiliates or associates with any other person for the purpose of acquiring, holding, disposing or voting of any shares of any class or series of capital stock of the Corporation;

(D) (i) a description of all agreements, arrangements or understandings by and among any of the Proposing Persons, or by and among any Proposing Persons and any other person (including with any proposed nominee(s)), pertaining to the nomination(s), or other business proposed to be brought before the meeting of stockholders (which description shall identify the name of each other person who is party to such an agreement, arrangement or understanding), and (ii) identification of the names and addresses of other stockholders (including beneficial owners) known by any of the Proposing Persons to support such nominations or other business proposal(s), and to the extent known the class and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) or other beneficial owner(s); and

(E) a statement whether or not the stockholder giving the notice and/or the other Proposing Person(s), if any, will deliver a proxy statement and form of proxy to holders of, in the case of a business proposal, at least the percentage of voting power of all of the shares of capital stock of the Corporation required under applicable law to approve the proposal or, in the case of a nomination or nominations, at least the percentage of voting power of all of the shares of capital stock of the Corporation reasonably believed by such Proposing Person to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder (such statement, the "Solicitation Statement").

For purposes of this Article I of these By-laws, the term "Proposing Person" shall mean the following persons: (i) the stockholder of record providing the notice of nominations or business proposed to be brought before a stockholders' meeting, and (ii) the beneficial owner(s), if different, on whose behalf the nominations or business proposed to be brought before a stockholders' meeting is made. For purposes of this Section 2 of Article I of these By-laws, the term "Synthetic Equity Interest" shall mean any transaction, agreement or arrangement (or series of transactions, agreements or arrangements), including, without limitation, any derivative, swap, hedge, repurchase or so-called "stock borrowing" agreement or arrangement, the purpose or effect of which is to, directly or indirectly: (a) give a person or entity economic benefit and/or risk similar to ownership of shares of any class or series of capital stock of the Corporation, in whole or in part, including due to the fact that such transaction, agreement or arrangement provides, directly or indirectly, the opportunity to profit or avoid a loss from any increase or decrease in the value of any shares of any class or series of capital stock of the Corporation, (b) mitigate loss to, reduce the economic risk of or manage the risk of share price changes for, any person or entity with respect to any shares of any class or series of capital stock of the Corporation, (c) otherwise provide in any manner the opportunity to profit or avoid a loss from any decrease in the value of any shares of any class or series of capital stock of the Corporation, or (d) increase or decrease the voting power of any person or entity with respect to any shares of any class or series of capital stock of the Corporation.

(3) A stockholder providing Timely Notice of nominations or business proposed to be brought before an Annual Meeting shall further update and supplement such notice, if necessary, so that the information (including, without limitation, the Material Ownership Interests information) provided or required to be provided in such notice pursuant to this By-law shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to such Annual Meeting, and such update and supplement shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the fifth (5th) business day after the record date for the Annual Meeting (in the case of the update and supplement required to be made as of the record date), and not later than the close of business on the eighth (8th) business day prior to the date of the Annual Meeting (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting).

(4) Notwithstanding anything in the second sentence of Article I, Section 2(a)(2) of this By-law to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the Corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with the second sentence of Article I, Section 2(a)(2), a stockholder's notice required by this By-law shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary of the Corporation not later than the close of

business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.

(b) General.

(1) Only such persons who are nominated in accordance with the provisions of this By-law and the Registration and Shareholder Rights Agreement, dated as of October 27, 2020, by and among the Corporation and certain of its stockholders (as amended, modified and/or supplemented from time to time, the “Registration and Shareholder Rights Agreement”) shall be eligible for election and to serve as directors and only such business shall be conducted at an Annual Meeting as shall have been brought before the meeting in accordance with the provisions of this By-law, the Registration and Shareholder Rights Agreement or in accordance with Rule 14a-8 under the Exchange Act. The Board of Directors or a designated committee thereof shall have the power to determine whether a nomination or any business proposed to be brought before the meeting was made in accordance with the provisions of this By-law or the Registration and Shareholder Rights Agreement. If neither the Board of Directors nor such designated committee makes a determination as to whether any stockholder proposal or nomination was made in accordance with the provisions of this By-law or the Registration and Shareholder Rights Agreement, the presiding officer of the Annual Meeting shall have the power and duty to determine whether the stockholder proposal or nomination was made in accordance with the provisions of this By-law or the Registration and Shareholder Rights Agreement. If the Board of Directors or a designated committee thereof or the presiding officer, as applicable, determines that any stockholder proposal or nomination was not made in accordance with the provisions of this By-law or the Registration and Shareholder Rights Agreement, such proposal or nomination shall be disregarded and shall not be presented for action at the Annual Meeting.

(2) Except as otherwise required by law or the Registration and Shareholder Rights Agreement, nothing in this Article I, Section 2 shall obligate the Corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the Corporation or the Board of Directors information with respect to any nominee for director or any other matter of business submitted by a stockholder.

(3) Notwithstanding the foregoing provisions of this Article I, Section 2, if the nominating or proposing stockholder (or a qualified representative of the stockholder) does not appear at the Annual Meeting to present a nomination or any business, such nomination or business shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Article I, Section 2, to be considered a qualified representative of the proposing stockholder, a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, to the presiding officer at the meeting of stockholders.

(4) For purposes of this By-law, “public announcement” shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(5) Notwithstanding the foregoing provisions of this By-law, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this By-law. Nothing in this By-law shall be deemed to affect any rights of (i) stockholders to have proposals included in the Corporation’s proxy statement pursuant to Rule 14a-8 (or any successor rule), as applicable, under the Exchange Act and, to the extent required by such rule, have such proposals considered and voted on at an Annual Meeting or (ii) the holders of any series of Undesignated Preferred Stock to elect directors under specified circumstances.

(c) Notwithstanding anything herein to the contrary, the affirmative vote of not less than two thirds (2/3) of the outstanding shares of capital stock entitled to vote thereon, and the affirmative vote of not less than two thirds (2/3) of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of this Article I, Section 2; provided, however, that if the Board of Directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, such amendment or repeal shall

only require the affirmative vote of a majority of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class.

SECTION 3. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Directors then in office. The Board of Directors may postpone or reschedule any previously scheduled special meeting of stockholders. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation. Nominations of persons for election to the Board of Directors of the Corporation and stockholder proposals of other business shall not be brought before a special meeting of stockholders to be considered by the stockholders unless such special meeting is held in lieu of an annual meeting of stockholders in accordance with Article I, Section 1 of these By-laws, in which case such special meeting in lieu thereof shall be deemed an Annual Meeting for purposes of these By-laws and the provisions of Article I, Section 2 of these By-laws shall govern such special meeting.

Notwithstanding anything herein to the contrary, the affirmative vote of not less than two thirds (2/3) of the outstanding shares of capital stock entitled to vote thereon, and the affirmative vote of not less than two thirds (2/3) of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of this Article I, Section 3; provided, however, that if the Board of Directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, such amendment or repeal shall only require the affirmative vote of a majority of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class.

SECTION 4. Notice of Meetings; Adjournments.

(a) A notice of each Annual Meeting stating the hour, date and place, if any, of such Annual Meeting and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, shall be given not less than ten (10) days nor more than sixty (60) days before the Annual Meeting, to each stockholder entitled to vote thereat by delivering such notice to such stockholder or by mailing it, postage prepaid, addressed to such stockholder at the address of such stockholder as it appears on the Corporation's stock transfer books. Without limiting the manner by which notice may otherwise be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the Delaware General Corporation Law ("DGCL").

(b) Unless otherwise required by the DGCL, notice of all special meetings of stockholders shall be given in the same manner as provided for Annual Meetings, except that the notice of all special meetings shall state the purpose or purposes for which the meeting has been called.

(c) Notice of an Annual Meeting or special meeting of stockholders need not be given to a stockholder if a waiver of notice is executed, or waiver of notice by electronic transmission is provided, before or after such meeting by such stockholder or if such stockholder attends such meeting, unless such attendance is for the express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting was not lawfully called or convened.

(d) The Board of Directors may postpone and reschedule any previously scheduled Annual Meeting or special meeting of stockholders and any record date with respect thereto, regardless of whether any notice or public disclosure with respect to any such meeting has been sent or made pursuant to Section 2 of this Article I of these By-laws or otherwise. In no event shall the public announcement of an adjournment, postponement or rescheduling of any previously scheduled meeting of stockholders commence a new time period for the giving of a stockholder's notice under this Article I of these By-laws.

(e) When any meeting is convened, the presiding officer may adjourn the meeting if (i) no quorum is present for the transaction of business, (ii) the Board of Directors determines that adjournment is necessary or appropriate to enable the stockholders to consider fully information which the Board of Directors determines has not been made sufficiently or timely available to stockholders, or (iii) the Board of Directors determines that adjournment is otherwise in the best interests of the Corporation. When any Annual Meeting or special meeting of stockholders is

adjourned to another hour, date or place, notice need not be given of the adjourned meeting other than an announcement at the meeting at which the adjournment is taken of the hour, date and place, if any, to which the meeting is adjourned and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting; provided, however, that if the adjournment is for more than thirty (30) days from the meeting date, or if after the adjournment a new record date is fixed for the adjourned meeting, notice of the adjourned meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting shall be given to each stockholder of record entitled to vote thereat and each stockholder who, by law or under the Certificate of Incorporation of the Corporation (as the same may hereafter be amended and/or restated, the "Certificate") or these By-laws, is entitled to such notice.

SECTION 5. Quorum. A majority of the outstanding shares entitled to vote, present in person or represented by proxy, shall constitute a quorum at any meeting of stockholders. If less than a quorum is present at a meeting, the holders of voting stock representing a majority of the voting power present at the meeting or the presiding officer may adjourn the meeting from time to time, and the meeting may be held as adjourned without further notice, except as provided in Section 4 of this Article I. At such adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the original meeting. The stockholders present at a duly constituted meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

SECTION 6. Voting and Proxies. Stockholders shall have one vote for each share of stock entitled to vote owned by them of record according to the stock ledger of the Corporation as of the record date, unless otherwise provided by law or by the Certificate. Stockholders may vote either (i) in person, (ii) by written proxy or (iii) by a transmission permitted by Section 212(c) of the DGCL. Any copy, facsimile telecommunication or other reliable reproduction of the writing or transmission permitted by Section 212(c) of the DGCL may be substituted for or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire original writing or transmission. Proxies shall be filed in accordance with the procedures established for the meeting of stockholders. Except as otherwise limited therein or as otherwise provided by law, proxies authorizing a person to vote at a specific meeting shall entitle the persons authorized thereby to vote at any adjournment of such meeting, but they shall not be valid after final adjournment of such meeting. A proxy with respect to stock held in the name of two or more persons shall be valid if executed by or on behalf of any one of them unless at or prior to the exercise of the proxy the Corporation receives a specific written notice to the contrary from any one of them.

SECTION 7. Action at Meeting. When a quorum is present at any meeting of stockholders, any matter before any such meeting (other than an election of a director or directors) shall be decided by a majority of the votes properly cast for and against such matter, except where a larger vote is required by law, by the Certificate or by these By-laws. Any election of directors by stockholders shall be determined by a plurality of the votes properly cast on the election of directors.

SECTION 8. Stockholder Lists. The Secretary or an Assistant Secretary (or the Corporation's transfer agent or other person authorized by these By-laws or by law) shall prepare and make, at least ten (10) days before every Annual Meeting or special meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for a period of at least ten (10) days prior to the meeting as provided in the manner, and subject to the terms, set forth in Section 219 of the DGCL (or any successor provision). The list shall also be open to the examination of any stockholder during the whole time of the meeting as provided by law.

SECTION 9. Presiding Officer. The Board of Directors shall designate a representative to preside over all Annual Meetings or special meetings of stockholders, provided that if the Board of Directors does not so designate such a presiding officer, then the Chairman of the Board, if one is elected, shall preside over such meetings. If the Board of Directors does not so designate such a presiding officer and there is no Chairman of the Board or the Chairman of the Board is unable to so preside or is absent, then the Chief Executive Officer, if one is elected, shall preside over such meetings, provided further that if there is no Chief Executive Officer or the Chief Executive Officer is unable

to so preside or is absent, then the President shall preside over such meetings. The presiding officer at any Annual Meeting or special meeting of stockholders shall have the power, among other things, to adjourn such meeting at any time and from time to time, subject to Sections 4 and 5 of this Article I. The order of business and all other matters of procedure at any meeting of the stockholders shall be determined by the presiding officer.

SECTION 10. Inspectors of Elections. The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the presiding officer shall appoint one or more inspectors to act at the meeting. Any inspector may, but need not, be an officer, employee or agent of the Corporation. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall perform such duties as are required by the DGCL, including the counting of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors. The presiding officer may review all determinations made by the inspectors, and in so doing the presiding officer shall be entitled to exercise his or her sole judgment and discretion and he or she shall not be bound by any determinations made by the inspectors. All determinations by the inspectors and, if applicable, the presiding officer, shall be subject to further review by any court of competent jurisdiction.

ARTICLE II

Directors

SECTION 1. Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided by the Certificate or required by law.

SECTION 2. Number and Terms. Subject to the terms of the Registration and Shareholder Rights Agreement, the number of directors of the Corporation shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The directors shall hold office in the manner provided in the Certificate.

SECTION 3. Qualification. No director need be a stockholder of the Corporation.

SECTION 4. Vacancies. Vacancies in the Board of Directors shall be filled in the manner provided in the Certificate and the Registration and Shareholder Rights Agreement.

SECTION 5. Removal. Directors may be removed from office only in the manner provided in the Certificate and the Registration and Shareholder Rights Agreement.

SECTION 6. Resignation. A director may resign at any time by electronic transmission or by giving written notice to the Chairman of the Board, if one is elected, the President or the Secretary. A resignation shall be effective upon receipt, unless the resignation otherwise provides.

SECTION 7. Regular Meetings. Regular and annual meetings of the Board of Directors may be held at such hour, date and place as the Board of Directors may by resolution from time to time determine and publicize by means of reasonable notice given to any director who is not present at the meeting at which such resolution is adopted.

SECTION 8. Special Meetings. Special meetings of the Board of Directors may be called, orally or in writing, by or at the request of a majority of the directors, the Chairman of the Board, if one is elected, or the President. The person calling any such special meeting of the Board of Directors may fix the hour, date and place thereof.

SECTION 9. Notice of Meetings. Notice of the hour, date and place of all special meetings of the Board of Directors shall be given to each director by the Secretary or an Assistant Secretary, or in case of the death, absence, incapacity or refusal of such persons, by the Chairman of the Board, if one is elected, or the President or such other officer designated by the Chairman of the Board, if one is elected, or the President. Notice of any special meeting of the Board of Directors shall be given to each director in person, by telephone, or by facsimile, electronic mail or other

form of electronic communication, sent to his or her business or home address, at least twenty-four (24) hours in advance of the meeting, or by written notice mailed to his or her business or home address, at least forty-eight (48) hours in advance of the meeting. Such notice shall be deemed to be delivered when hand-delivered to such address, read to such director by telephone, deposited in the mail so addressed, with postage thereon prepaid if mailed, dispatched or transmitted if sent by facsimile transmission or by electronic mail or other form of electronic communications. A written waiver of notice signed or electronically transmitted before or after a meeting by a director and filed with the records of the meeting shall be deemed to be equivalent to notice of the meeting. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting for the express purpose of objecting at the beginning of the meeting to the transaction of any business because such meeting is not lawfully called or convened. Except as otherwise required by law, by the Certificate or by these By-laws, neither the business to be transacted at, nor the purpose of, any meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting.

SECTION 10. Quorum. At any meeting of the Board of Directors, a majority of the total number of directors shall constitute a quorum for the transaction of business, but if less than a quorum is present at a meeting, a majority of the directors present may adjourn the meeting from time to time, and the meeting may be held as adjourned without further notice. Any business which might have been transacted at the meeting as originally noticed may be transacted at such adjourned meeting at which a quorum is present. For purposes of this section, the total number of directors includes any unfilled vacancies on the Board of Directors.

SECTION 11. Action at Meeting. At any meeting of the Board of Directors at which a quorum is present, the vote of a majority of the directors present shall constitute action by the Board of Directors, unless otherwise required by law, by the Certificate or by these By-laws.

SECTION 12. Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting if all members of the Board of Directors consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the records of the meetings of the Board of Directors. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. Such consent shall be treated as a resolution of the Board of Directors for all purposes.

SECTION 13. Manner of Participation. Directors may participate in meetings of the Board of Directors by means of conference telephone or other communications equipment by means of which all directors participating in the meeting can hear each other, and participation in a meeting in accordance herewith shall constitute presence in person at such meeting for purposes of these By-laws.

SECTION 14. Presiding Director. The Board of Directors shall designate a representative to preside over all meetings of the Board of Directors, provided that if the Board of Directors does not so designate such a presiding director or such designated presiding director is unable to so preside or is absent, then the Chairman of the Board, if one is elected, shall preside over all meetings of the Board of Directors. If both the designated presiding director, if one is so designated, and the Chairman of the Board, if one is elected, are unable to preside or are absent, the Board of Directors shall designate an alternate representative to preside over a meeting of the Board of Directors.

SECTION 15. Committees. Subject to the terms of the Registration and Shareholder Rights Agreement, the Board of Directors, by vote of a majority of the directors then in office, may elect one or more committees, including, without limitation, a Compensation Committee, a Nominating & Corporate Governance Committee and an Audit Committee, and may delegate thereto some or all of its powers except those which by law, by the Certificate or by these By-laws may not be delegated. Except as the Board of Directors may otherwise determine, any such committee may make rules for the conduct of its business, but unless otherwise provided by the Board of Directors or in such rules, its business shall be conducted so far as possible in the same manner as is provided by these By-laws for the Board of Directors. All members of such committees shall hold such offices at the pleasure of the Board of Directors. The Board of Directors may abolish any such committee at any time. Any committee to which the Board of Directors delegates any of its powers or duties shall keep records of its meetings and shall report its action to the Board of Directors.

SECTION 16. Compensation of Directors. Directors shall receive such compensation for their services as shall be determined by a majority of the Board of Directors, or a designated committee thereof, provided that directors who are serving the Corporation as employees and who receive compensation for their services as such, shall not receive any salary or other compensation for their services as directors of the Corporation.

ARTICLE III

Officers

SECTION 1. Enumeration. The officers of the Corporation shall consist of a President, a Treasurer, a Secretary and such other officers, including, without limitation, a Chairman of the Board of Directors, a Chief Executive Officer and one or more Vice Presidents (including Executive Vice Presidents or Senior Vice Presidents), Assistant Vice Presidents, Assistant Treasurers and Assistant Secretaries, as the Board of Directors may determine.

SECTION 2. Election. At the regular annual meeting of the Board of Directors following the Annual Meeting, the Board of Directors shall elect the President, the Treasurer and the Secretary. Other officers may be elected by the Board of Directors at such regular annual meeting of the Board of Directors or at any other regular or special meeting.

SECTION 3. Qualification. No officer need be a stockholder or a director. Any person may occupy more than one office of the Corporation at any time.

SECTION 4. Tenure. Except as otherwise provided by the Certificate or by these By-laws, each of the officers of the Corporation shall hold office until the regular annual meeting of the Board of Directors following the next Annual Meeting and until his or her successor is elected and qualified or until his or her earlier resignation or removal.

SECTION 5. Resignation. Any officer may resign by delivering his or her written or electronically transmitted resignation to the Corporation addressed to the President or the Secretary, and such resignation shall be effective upon receipt, unless the resignation otherwise provides.

SECTION 6. Removal. Except as otherwise provided by law or by resolution of the Board of Directors, the Board of Directors may remove any officer with or without cause by the affirmative vote of a majority of the directors then in office.

SECTION 7. Absence or Disability. In the event of the absence or disability of any officer, the Board of Directors may designate another officer to act temporarily in place of such absent or disabled officer.

SECTION 8. Vacancies. Any vacancy in any office may be filled for the unexpired portion of the term by the Board of Directors.

SECTION 9. President. The President shall, subject to the direction of the Board of Directors, have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 10. Chairman of the Board. The Chairman of the Board, if one is elected, shall have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 11. Chief Executive Officer. The Chief Executive Officer, if one is elected, shall have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 12. Vice Presidents and Assistant Vice Presidents. Any Vice President (including any Executive Vice President or Senior Vice President) and any Assistant Vice President shall have such powers and shall perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 13. Treasurer and Assistant Treasurers. The Treasurer shall, subject to the direction of the Board of Directors and except as the Board of Directors or the Chief Executive Officer may otherwise provide, have general

charge of the financial affairs of the Corporation and shall cause to be kept accurate books of account. The Treasurer shall have custody of all funds, securities, and valuable documents of the Corporation. He or she shall have such other duties and powers as may be designated from time to time by the Board of Directors or the Chief Executive Officer. Any Assistant Treasurer shall have such powers and perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 14. Secretary and Assistant Secretaries. The Secretary shall record all the proceedings of the meetings of the stockholders and the Board of Directors (including committees of the Board of Directors) in books kept for that purpose. In his or her absence from any such meeting, a temporary secretary chosen at the meeting shall record the proceedings thereof. The Secretary shall have charge of the stock ledger (which may, however, be kept by any transfer or other agent of the Corporation). The Secretary shall have custody of the seal of the Corporation, and the Secretary, or an Assistant Secretary shall have authority to affix it to any instrument requiring it, and, when so affixed, the seal may be attested by his or her signature or that of an Assistant Secretary. The Secretary shall have such other duties and powers as may be designated from time to time by the Board of Directors or the Chief Executive Officer. In the absence of the Secretary, any Assistant Secretary may perform his or her duties and responsibilities. Any Assistant Secretary shall have such powers and perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 15. Other Powers and Duties. Subject to these By-laws and to such limitations as the Board of Directors may from time to time prescribe, the officers of the Corporation shall each have such powers and duties as generally pertain to their respective offices, as well as such powers and duties as from time to time may be conferred by the Board of Directors or the Chief Executive Officer.

ARTICLE IV

Capital Stock

SECTION 1. Certificates of Stock. Each stockholder shall be entitled to a certificate of the capital stock of the Corporation in such form as may from time to time be prescribed by the Board of Directors. Such certificate shall be signed by any two authorized officers of the Corporation. The Corporation seal and the signatures by the Corporation's officers, the transfer agent or the registrar may be facsimiles. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed on such certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the time of its issue. Every certificate for shares of stock which are subject to any restriction on transfer and every certificate issued when the Corporation is authorized to issue more than one class or series of stock shall contain such legend with respect thereto as is required by law. Notwithstanding anything to the contrary provided in these By-laws, the Board of Directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares (except that the foregoing shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation), and by the approval and adoption of these By-laws the Board of Directors has determined that all classes or series of the Corporation's stock may be uncertificated, whether upon original issuance, re-issuance, or subsequent transfer.

SECTION 2. Transfers. Subject to any restrictions on transfer and unless otherwise provided by the Board of Directors, shares of stock that are represented by a certificate may be transferred on the books of the Corporation by the surrender to the Corporation or its transfer agent of the certificate theretofore properly endorsed or accompanied by a written assignment or power of attorney properly executed, with transfer stamps (if necessary) affixed, and with such proof of the authenticity of signature as the Corporation or its transfer agent may reasonably require. Shares of stock that are not represented by a certificate may be transferred on the books of the Corporation by submitting to the Corporation or its transfer agent such evidence of transfer and following such other procedures as the Corporation or its transfer agent may require.

SECTION 3. Record Holders. Except as may otherwise be required by law, by the Certificate or by these By-laws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect thereto, regardless of any

transfer, pledge or other disposition of such stock, until the shares have been transferred on the books of the Corporation in accordance with the requirements of these By-laws.

SECTION 4. Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date: (a) in the case of determination of stockholders entitled to vote at any meeting of stockholders, shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting and (b) in the case of any other action, shall not be more than sixty (60) days prior to such other action. If no record date is fixed: (i) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; and (ii) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

SECTION 5. Replacement of Certificates. In case of the alleged loss, destruction or mutilation of a certificate of stock of the Corporation, a duplicate certificate may be issued in place thereof, upon such terms as the Board of Directors may prescribe.

ARTICLE V

Indemnification

SECTION 1. Definitions. For purposes of this Article:

(a) "Corporate Status" describes the status of a person who is serving or has served (i) as a Director of the Corporation, (ii) as an Officer of the Corporation, (iii) as a Non-Officer Employee of the Corporation, or (iv) as a director, partner, trustee, officer, employee or agent of any other corporation, partnership, limited liability company, joint venture, trust, employee benefit plan, foundation, association, organization or other legal entity which such person is or was serving at the request of the Corporation. For purposes of this Section 1(a), a Director, Officer or Non-Officer Employee of the Corporation who is serving or has served as a director, partner, trustee, officer, employee or agent of a Subsidiary shall be deemed to be serving at the request of the Corporation. Notwithstanding the foregoing, "Corporate Status" shall not include the status of a person who is serving or has served as a director, officer, employee or agent of a constituent corporation absorbed in a merger or consolidation transaction with the Corporation with respect to such person's activities prior to said transaction, unless specifically authorized by the Board of Directors or the stockholders of the Corporation;

(b) "Director" means any person who serves or has served the Corporation as a director on the Board of Directors of the Corporation, including, for the avoidance of doubt, any person who has served as a director on the board of directors of ARYA Sciences Acquisition Corp II, a Cayman exempted company;

(c) "Disinterested Director" means, with respect to each Proceeding in respect of which indemnification is sought hereunder, a Director of the Corporation who is not and was not a party to such Proceeding;

(d) "Expenses" means all reasonable, documented and out-of-pocket attorneys' fees, retainers, court costs, transcript costs, fees of expert witnesses, private investigators and professional advisors (including, without limitation, accountants and investment bankers), travel expenses, duplicating costs, printing and binding costs, costs of preparation of demonstrative evidence and other courtroom presentation aids and devices, costs incurred in connection with document review, organization, imaging and computerization, telephone charges, postage, delivery service fees, and all other disbursements, costs or expenses of the type customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, settling or otherwise participating in, a Proceeding;

(e) “Liabilities” means judgments, damages, liabilities, losses, penalties, excise taxes, fines and amounts paid in settlement;

(f) “Non-Officer Employee” means any person who serves or has served as an employee or agent of the Corporation, but who is not or was not a Director or Officer;

(g) “Officer” means any person who serves or has served the Corporation as an officer of the Corporation appointed by the Board of Directors of the Corporation, including, for the avoidance of doubt, any person who has served as an officer of ARYA Sciences Acquisition Corp II, a Cayman exempted company;

(h) “Proceeding” means any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, inquiry, investigation, administrative hearing or other proceeding, whether civil, criminal, administrative, arbitrative or investigative; and

(i) “Subsidiary” shall mean any corporation, partnership, limited liability company, joint venture, trust or other entity of which the Corporation owns (either directly or through or together with another Subsidiary of the Corporation) either (i) a general partner, managing member or other similar interest or (ii) (A) fifty percent (50%) or more of the voting power of the voting capital equity interests of such corporation, partnership, limited liability company, joint venture or other entity, or (B) fifty percent (50%) or more of the outstanding voting capital stock or other voting equity interests of such corporation, partnership, limited liability company, joint venture or other entity.

SECTION 2. Indemnification of Directors and Officers.

(a) Subject to the operation of Section 4 of this Article V of these By-laws, each Director and Officer shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), and to the extent authorized in this Section 2.

(1) Actions, Suits and Proceedings Other than By or In the Right of the Corporation. Each Director and Officer shall be indemnified and held harmless by the Corporation against any and all Expenses and Liabilities that are incurred or paid by such Director or Officer or on such Director’s or Officer’s behalf in connection with any Proceeding or any claim, issue or matter therein (other than an action by or in the right of the Corporation), which such Director or Officer is, or is threatened to be made, a party to or participant in by reason of such Director’s or Officer’s Corporate Status, if such Director or Officer acted in good faith and in a manner such Director or Officer reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful.

(2) Actions, Suits and Proceedings By or In the Right of the Corporation. Each Director and Officer shall be indemnified and held harmless by the Corporation against any and all Expenses that are incurred by such Director or Officer or on such Director’s or Officer’s behalf in connection with any Proceeding or any claim, issue or matter therein by or in the right of the Corporation, which such Director or Officer is, or is threatened to be made, a party to or participant in by reason of such Director’s or Officer’s Corporate Status, if such Director or Officer acted in good faith and in a manner such Director or Officer reasonably believed to be in or not opposed to the best interests of the Corporation; provided, however, that no indemnification shall be made under this Section 2(a)(2) in respect of any claim, issue or matter as to which such Director or Officer shall have been finally adjudged by a court of competent jurisdiction to be liable to the Corporation, unless, and only to the extent that, the Court of Chancery or another court in which such Proceeding was brought shall determine upon application that, despite adjudication of liability, but in view of all the circumstances of the case, such Director or Officer is fairly and reasonably entitled to indemnification for such Expenses that such court deems proper.

(3) Survival of Rights. The rights of indemnification provided by this Section 2 shall continue as to a Director or Officer after he or she has ceased to be a Director or Officer and shall inure to the benefit of his or her heirs, executors, administrators and personal representatives.

(4) Actions by Directors or Officers. Notwithstanding the foregoing, the Corporation shall indemnify any Director or Officer seeking indemnification in connection with a Proceeding initiated by such Director or Officer only if such Proceeding (including any parts of such Proceeding not initiated by such Director or Officer) was authorized in advance by the Board of Directors of the Corporation, unless such Proceeding was brought to enforce such Officer's or Director's rights to indemnification or, in the case of Directors, advancement of Expenses under these By-laws in accordance with the provisions set forth herein.

SECTION 3. Indemnification of Non-Officer Employees. Subject to the operation of Section 4 of this Article V of these By-laws, each Non-Officer Employee may, in the discretion of the Board of Directors of the Corporation, be indemnified by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended, against any or all Expenses and Liabilities that are incurred by such Non-Officer Employee or on such Non-Officer Employee's behalf in connection with any threatened, pending or completed Proceeding, or any claim, issue or matter therein, which such Non-Officer Employee is, or is threatened to be made, a party to or participant in by reason of such Non-Officer Employee's Corporate Status, if such Non-Officer Employee acted in good faith and in a manner such Non-Officer Employee reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. The rights of indemnification provided by this Section 3 shall exist as to a Non-Officer Employee after he or she has ceased to be a Non-Officer Employee and shall inure to the benefit of his or her heirs, personal representatives, executors and administrators. Notwithstanding the foregoing, the Corporation may indemnify any Non-Officer Employee seeking indemnification in connection with a Proceeding initiated by such Non-Officer Employee only if such Proceeding was authorized in advance by the Board of Directors of the Corporation.

SECTION 4. Determination. Unless ordered by a court, no indemnification shall be provided pursuant to this Article V to a Director, to an Officer or to a Non-Officer Employee unless a determination shall have been made that such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal Proceeding, such person had no reasonable cause to believe his or her conduct was unlawful. Such determination shall be made by (a) a majority vote of the Disinterested Directors, even though less than a quorum of the Board of Directors, (b) a committee comprised of Disinterested Directors, such committee having been designated by a majority vote of the Disinterested Directors (even though less than a quorum), (c) if there are no such Disinterested Directors, or if a majority of Disinterested Directors so directs, by independent legal counsel in a written opinion, or (d) by the stockholders of the Corporation.

SECTION 5. Advancement of Expenses to Directors Prior to Final Disposition.

(a) The Corporation shall advance all Expenses incurred by or on behalf of any Director in connection with any Proceeding in which such Director is involved by reason of such Director's Corporate Status within thirty (30) days after the receipt by the Corporation of a written statement from such Director requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by such Director and shall be preceded or accompanied by an undertaking by or on behalf of such Director to repay any Expenses so advanced if it shall ultimately be determined that such Director is not entitled to be indemnified against such Expenses. Notwithstanding the foregoing, the Corporation shall advance all Expenses incurred by or on behalf of any Director seeking advancement of expenses hereunder in connection with a Proceeding initiated by such Director only if such Proceeding (including any parts of such Proceeding not initiated by such Director) was (i) authorized by the Board of Directors of the Corporation, or (ii) brought to enforce such Director's rights to indemnification or advancement of Expenses under these By-laws.

(b) If a claim for advancement of Expenses hereunder by a Director is not paid in full by the Corporation within thirty (30) days after receipt by the Corporation of documentation of Expenses and the required undertaking, such Director may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and if successful in whole or in part, such Director shall also be entitled to be paid the expenses of prosecuting or defending such suit. The failure of the Corporation (including its Board of Directors or any committee thereof, independent legal counsel, or stockholders) to make a determination concerning the permissibility of such advancement of Expenses under this Article V shall not be a defense to an action brought by a Director for recovery of the unpaid amount of an advancement claim and shall not create a presumption that such advancement is not permissible. The burden of proving that a Director is not entitled to an advancement of expenses shall be on the Corporation.

(c) In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that the Director has not met any applicable standard for indemnification set forth in the DGCL.

SECTION 6. Advancement of Expenses to Officers and Non-Officer Employees Prior to Final Disposition.

(a) The Corporation may, at the discretion of the Board of Directors of the Corporation, advance any or all Expenses incurred by or on behalf of any Officer or any Non-Officer Employee in connection with any Proceeding in which such person is involved by reason of his or her Corporate Status as an Officer or Non-Officer Employee upon the receipt by the Corporation of a statement or statements from such Officer or Non-Officer Employee requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by such Officer or Non-Officer Employee and shall be preceded or accompanied by an undertaking by or on behalf of such person to repay any Expenses so advanced if it shall ultimately be determined that such Officer or Non-Officer Employee is not entitled to be indemnified against such Expenses.

(b) In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that the Officer or Non-Officer Employee has not met any applicable standard for indemnification set forth in the DGCL.

SECTION 7. Contractual Nature of Rights.

(a) The provisions of this Article V shall be deemed to be a contract between the Corporation and each Director and Officer entitled to the benefits hereof at any time while this Article V is in effect, in consideration of such person's past or current and any future performance of services for the Corporation. Neither amendment, repeal or modification of any provision of this Article V nor the adoption of any provision of the Certificate of Incorporation inconsistent with this Article V shall eliminate or reduce any right conferred by this Article V in respect of any act or omission occurring, or any cause of action or claim that accrues or arises or any state of facts existing, at the time of or before such amendment, repeal, modification or adoption of an inconsistent provision (even in the case of a proceeding based on such a state of facts that is commenced after such time), and all rights to indemnification and advancement of Expenses granted herein or arising out of any act or omission shall vest at the time of the act or omission in question, regardless of when or if any proceeding with respect to such act or omission is commenced. The rights to indemnification and to advancement of expenses provided by, or granted pursuant to, this Article V shall continue notwithstanding that the person has ceased to be a director or officer of the Corporation and shall inure to the benefit of the estate, heirs, executors, administrators, legatees and distributees of such person.

(b) If a claim for indemnification (following final disposition of such Proceeding) or advancement of Expenses hereunder by a Director or Officer is not paid in full by the Corporation within sixty (60) days after receipt by the Corporation of a written claim for indemnification or advancement of Expenses, such Director or Officer may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim, and if successful in whole or in part, pursuant to the terms of an undertaking, such Director or Officer shall also be entitled to be paid the expenses of prosecuting or defending such suit. The failure of the Corporation (including its Board of Directors or any committee thereof, independent legal counsel, or stockholders) to make a determination concerning the permissibility of such indemnification under this Article V shall not be a defense to an action brought by a Director or Officer for recovery of the unpaid amount of an indemnification claim and shall not create a presumption that such indemnification is not permissible. The burden of proving that a Director or Officer is not entitled to indemnification or advancement of Expenses shall be on the Corporation.

(c) In any suit brought by a Director or Officer to enforce a right to indemnification hereunder, it shall be a defense that such Director or Officer has not met any applicable standard for indemnification set forth in the DGCL.

SECTION 8. Non-Exclusivity of Rights. The rights to indemnification and to advancement of Expenses set forth in this Article V shall not be exclusive of any other right which any Director, Officer, or Non-Officer Employee may have or hereafter acquire under any statute, provision of the Certificate or these By-laws, agreement, vote of stockholders or Disinterested Directors or otherwise.

SECTION 9. Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any Director, Officer or Non-Officer Employee against any liability of any character asserted against or incurred by the Corporation or any such Director, Officer or Non-Officer Employee, or arising out of any such person's Corporate Status, whether or not the Corporation would have the power to indemnify such person against such liability under the DGCL or the provisions of this Article V.

SECTION 10. Other Indemnification. Subject to any other right which any Director, Officer or Non-Officer Employee may have or hereafter acquire under any statute, provision of the Certificate or these By-laws, agreement, vote of stockholders or Disinterested Directors or otherwise to the contrary, the Corporation's obligation, if any, to indemnify or provide advancement of Expenses to any person under this Article V as a result of such person serving, at the request of the Corporation, as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise shall be reduced by any amount such person may collect as indemnification or advancement of Expenses from such other corporation, partnership, joint venture, trust, employee benefit plan or enterprise (the "Primary Indemnitor"). Subject to any other right which any Director, Officer or Non-Officer Employee may have or hereafter acquire under any statute, provision of the Certificate or these By-laws, agreement, vote of stockholders or Disinterested Directors or otherwise to the contrary, any indemnification or advancement of Expenses under this Article V owed by the Corporation as a result of a person serving, at the request of the Corporation, as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise shall only be in excess of, and shall be secondary to, the indemnification or advancement of Expenses available from the applicable Primary Indemnitor(s) and any applicable insurance policies.

ARTICLE VI

Miscellaneous Provisions

SECTION 1. Fiscal Year. The fiscal year of the Corporation shall be determined by the Board of Directors.

SECTION 2. Seal. The Board of Directors shall have power to adopt and alter the seal of the Corporation.

SECTION 3. Execution of Instruments. All deeds, leases, transfers, contracts, bonds, notes and other obligations to be entered into by the Corporation in the ordinary course of its business without director action may be executed on behalf of the Corporation by the Chairman of the Board, if one is elected, the President or the Treasurer or any other officer, employee or agent of the Corporation as the Board of Directors may authorize. SECTION 4. Voting of Securities. Unless the Board of Directors otherwise provides, the Chairman of the Board, if one is elected, the President or the Treasurer may waive notice of and act on behalf of the Corporation (including with regard to voting and actions by written consent), or appoint another person or persons to act as proxy or attorney in fact for the Corporation with or without discretionary power and/or power of substitution, at any meeting of stockholders or shareholders of any other corporation or organization, any of whose securities are held by the Corporation.

SECTION 5. Resident Agent. The Board of Directors may appoint a resident agent upon whom legal process may be served in any action or proceeding against the Corporation.

SECTION 6. Corporate Records. The original or attested copies of the Certificate, By-laws and records of all meetings of the incorporators, stockholders and the Board of Directors and the stock transfer books, which shall contain the names of all stockholders, their record addresses and the amount of stock held by each, may be kept outside the State of Delaware and shall be kept at the principal office of the Corporation, at an office of its counsel, at an office of its transfer agent or at such other place or places as may be designated from time to time by the Board of Directors.

SECTION 7. Certificate. All references in these By-laws to the Certificate shall be deemed to refer to the Amended and Restated Certificate of Incorporation of the Corporation, as amended and/or restated and in effect from time to time.

SECTION 8. Exclusive Jurisdiction. Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for state law claims for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or the Certificate or By-laws, (iv) any action to interpret, apply, enforce or determine the validity of the Certificate or By-laws, or (v) any action asserting a claim against the Corporation governed by the internal affairs doctrine. The provisions of this Section 8 shall not apply to any claims arising under the Exchange Act or the Securities Act of 1933, as amended. In addition, unless the Corporation consents in writing to the selection of an alternative forum, the United States District Court for the District of Massachusetts shall be the sole and exclusive forum for resolving any action asserting a claim arising under the Securities Act. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Section 8.

SECTION 9. Amendment of By-laws.

(a) Amendment by Directors. Except as provided otherwise by law, any section or portion of these By-laws may be amended or repealed by the Board of Directors by the affirmative vote of a majority of the directors then in office.

(b) Amendment by Stockholders. Except as otherwise required by these By-laws or by law, these By-laws may be amended or repealed at any Annual Meeting, or special meeting of stockholders called for such purpose in accordance with these By-Laws, by the affirmative vote of a majority of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class. Notwithstanding the foregoing, stockholder approval shall not be required unless mandated by the Certificate, these By-laws, or other applicable law.

SECTION 10. Notices. If mailed, notice to stockholders shall be deemed given when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation. Without limiting the manner by which notice otherwise may be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the DGCL.

SECTION 11. Waivers. A written waiver of any notice, signed by a stockholder or director, or waiver by electronic transmission by such person, whether given before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such person. Neither the business to be transacted at, nor the purpose of, any meeting need be specified in such a waiver.

**DESCRIPTION OF THE REGISTRANT’S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

The following description of the capital stock of Cerevel Therapeutics Holdings, Inc. (the “Company,” “we,” “us,” and “our”) is a summary of certain provisions of the securities that are registered under Section 12 of the Securities and Exchange Act of 1934, as amended, and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Certificate of Incorporation (“Certificate of Incorporation”) and Bylaws (“Bylaws”), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.3 is a part, and by applicable law. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the Delaware General Corporation Law (“DGCL”) for additional information.

Authorized Capitalization

General

The total amount of our authorized share capital consists of 500,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share.

Common Stock

Voting rights. Each holder of common stock will be entitled to one (1) vote for each share of common stock held of record by such holder on all matters voted upon by our stockholders, provided, however, that, except as otherwise required in the Certificate of Incorporation or by applicable law, the holders of common stock will not be entitled to vote on any amendment to our Certificate of Incorporation that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to our Certificate of Incorporation (including any certificate of designation relating to any series of preferred stock) or pursuant to the DGCL.

Dividend rights. Subject to any other provisions of the Certificate of Incorporation, as it may be amended from time to time, holders of shares of common stock will be entitled to receive ratably, in proportion to the number of shares of common stock held by them, such dividends and other distributions in cash, stock or property when, as and if declared thereon by our board of directors from time to time out of our assets or funds legally available therefor.

Rights upon liquidation. Subject to the rights of holders of preferred stock, in the event of any liquidation, dissolution or winding up of our affairs, whether voluntary or involuntary, after payment or provision for payment of our debts and any other payments required by law and amounts payable upon shares of preferred stock ranking senior to the shares of common stock upon such dissolution, liquidation or winding up, if any, our remaining net assets will be distributed to the holders of shares of common stock and the holders of shares of any other class or series ranking equally with the shares of common stock upon such dissolution, liquidation or winding up, equally on a per share basis.

Other rights. No holder of shares of common stock will be entitled to preemptive or subscription rights contained in the Certificate of Incorporation or in the Bylaws. There are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of holders of the common stock will be subject to those of the holders of any shares of the preferred stock that we may issue in the future.

Preferred Stock

Our board of directors has the authority to issue shares of preferred stock from time to time on terms it may determine, to divide shares of preferred stock into one or more series and to fix the designations, preferences, privileges, and restrictions of preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preference, sinking fund terms, and the number of shares constituting any series or the designation of any series to the fullest extent permitted by the DGCL. The issuance of preferred stock could have the effect of decreasing the trading price of common stock, restricting dividends on our capital stock, diluting the voting power of the common stock, impairing the liquidation rights of our capital stock or delaying or preventing a change in control of us.

Election of Directors and Vacancies

Subject to the rights of the holders of any series of preferred stock to elect additional directors under specified circumstances and the terms and conditions of the Registration and Shareholder Rights Agreement, the number of directors of our board of directors shall be fixed solely and exclusively by resolution duly adopted from time to time by our board of directors.

Under the Bylaws, at all meetings of stockholders called for the election of directors, a plurality of the votes properly cast will be sufficient to elect such directors to our board of directors.

Except as the DGCL or the Registration and Shareholder Rights Agreement may otherwise require and subject to the rights, if any, of the holders of any series of preferred stock, in the interim between annual meetings of stockholders or special meetings of stockholders called for the election of directors and/or the removal of one or more directors and the filling of any vacancy in that connection, newly created directorships and any vacancies on our board of directors, including unfilled vacancies resulting from the removal of directors, may be filled only by the affirmative vote of a majority of the remaining directors then in office, although less than a quorum, or by the sole remaining director. All directors will hold office until the expiration of their respective terms of office and until their successors will have been elected and qualified. A director elected or appointed to fill a vacancy resulting from the death, resignation or removal of a director or a newly created directorship will serve for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until his or her successor will have been elected and qualified.

Subject to the rights, if any, of any series of our preferred stock, any director may be removed from office only with cause and only by the affirmative vote of the holders of not less than two-thirds of the outstanding voting stock (as defined below) then entitled to vote at an election of directors. Any such director proposed to be removed from office is entitled to advance written notice as described in the Certificate of Incorporation. Subject to the terms and conditions of the Registration and Shareholder Rights Agreement, in case our board of directors or any one or more directors should be so removed, new directors may be elected at the same time for the unexpired portion of the full term of the director or directors so removed.

In addition to the powers and authorities hereinbefore or by statute expressly conferred upon them, the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by us, subject, nevertheless, to the provisions of the DGCL, the Certificate of Incorporation and to any Bylaws adopted and in effect from time to time; provided, however, that no Bylaw so adopted will invalidate any prior act of the directors which would have been valid if such Bylaw had not been adopted.

Notwithstanding the foregoing provisions, any director elected pursuant to the right, if any, of the holders of preferred stock to elect additional directors under specified circumstances will serve for such term or terms and pursuant to such other provisions as specified in the relevant certificate of designations related to our preferred stock.

Quorum

The holders of a majority of the voting power of the capital stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, will constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise required by law or provided by the Certificate of Incorporation. If, however, such quorum will not be present or represented at any meeting of the stockholders, the holders of a majority of the voting power present in person or represented by proxy, will have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum will be present or represented. At such adjourned meeting at which a quorum will be present or represented, any business may be transacted which might have been transacted at the meeting as originally noticed. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting will be given to each stockholder entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting.

Anti-takeover Effects of the Certificate of Incorporation and the Bylaws

The Certificate of Incorporation and the Bylaws contain provisions that may delay, defer or discourage another party from acquiring control of us. We expect that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with the board of directors, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give the board of directors the power to discourage acquisitions that some stockholders may favor.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of Nasdaq, which would apply if and so long as the common stock (or units or warrants) remains listed on Nasdaq, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or then outstanding number of shares of common stock. Additional shares that may be issued in the future may be used for a variety of corporate purposes, including future public offerings, to raise additional capital or to facilitate acquisitions.

One of the effects of the existence of unissued and unreserved common stock may be to enable our board of directors to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise and thereby protect the continuity of management and possibly deprive stockholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Special Meeting, Action by Written Consent and Advance Notice Requirements for Stockholder Proposals

Unless otherwise required by law, and subject to the rights, if any, of the holders of any series of preferred stock, special meetings of our stockholders, for any purpose or purposes, may be called only (i) by a majority of our board of directors or (ii) at any time when no annual meeting has been held for a period of thirteen (13) months after our last annual meeting, a special meeting in lieu thereof may be held, and such special meeting shall have, for the purposes of the Bylaws or otherwise, all the force and effect of an annual meeting. Unless otherwise required by law, written notice of a special meeting of stockholders, stating the time, place and purpose or purposes thereof, shall be given to each stockholder entitled to vote at such meeting, not less than ten (10) or more than sixty (60) days before the date fixed for the meeting. Business transacted at any special meeting of stockholders will be limited to the purposes stated in the notice.

The Bylaws also provide that unless otherwise restricted by the Certificate of Incorporation or the Bylaws, any action required or permitted to be taken at any meeting of our board of directors or of any committee thereof may be taken without a meeting, if all members of our board of directors or of such committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of our board of directors or committee.

In addition, the Bylaws require advance notice procedures for stockholder proposals to be brought before an annual meeting of the stockholders, including the nomination of directors. Stockholders at an annual meeting may only consider the proposals specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors, or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered a timely written notice in proper form to our secretary, of the stockholder's intention to bring such business before the meeting.

These provisions could have the effect of delaying until the next stockholder meeting any stockholder actions, even if they are favored by the holders of a majority of our outstanding voting securities.

Amendment to Certificate of Incorporation and Bylaws

The DGCL provides generally that the affirmative vote of a majority of the outstanding stock entitled to vote on amendments to a corporation's certificate of incorporation or bylaws is required to approve such amendment, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage.

The Certificate of Incorporation provides that the following provisions therein may be amended, altered, repealed or rescinded only by the affirmative vote of the holders of at least 66-2/3% in voting power of all the then outstanding shares of our stock entitled to vote thereon and the affirmative vote of at least 66-2/3% of the outstanding shares of each class entitled to vote thereon as a class:

- the provisions regarding the size of our board of directors and the election of directors pursuant to the Registration and Shareholder Rights Agreement;
- the provisions prohibiting stockholder actions without a meeting;
- the provisions regarding calling special meetings of stockholders;
- the provisions regarding removal of directors;
- the provisions regarding the limited liability of our directors; or
- the provisions regarding the election not to be governed by Section 203 of the DGCL.

The Bylaws may be amended or repealed (A) by the affirmative vote of a majority of the entire board of directors then in office (subject to any bylaw requiring the affirmative vote of a larger percentage of the members of our board of directors) or (B) without the approval of the board of directors, by the affirmative vote of the holders of 66-2/3% of the outstanding voting stock entitled to vote on such amendment or repeal, voting as a single class, provided that if our board of directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, then such amendment or repeal shall only require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting as a single class.

Delaware Anti-Takeover Statute

Section 203 of the DGCL provides that if a person acquires 15% or more of the voting stock of a Delaware corporation, such person becomes an "interested stockholder" and may not engage in certain "business combinations" with the corporation for a period of three years from the time such person acquired 15% or more of the corporation's voting stock, unless:

- (1) the board of directors approves the acquisition of stock or the merger transaction before the time that the person becomes an interested stockholder;
 - (2) the interested stockholder owns at least 85% of the outstanding voting stock of the corporation at the time the merger transaction commences (excluding voting stock owned by directors who are also officers and certain employee stock plans); or
 - (3) the merger transaction is approved by the board of directors and at a meeting of stockholders, not by written consent, by the affirmative vote of 2/3 of the outstanding voting stock which is not owned by the interested stockholder. A Delaware corporation may elect in its certificate of incorporation or bylaws not to be governed by this particular Delaware law.
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Under the Certificate of Incorporation, we opted out of Section 203 of the DGCL and therefore are not subject to Section 203. However, the Certificate of Incorporation contains similar provisions providing that we may not engage in certain “business combinations” with any “interested stockholder” for a three- year period following the time that the stockholder became an interested stockholder, unless:

- prior to such time, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding certain shares; or
- at or subsequent to that time, the business combination is approved by our board of directors and by the affirmative vote of holders of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a “business combination” includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an “interested stockholder” is a person who, together with that person’s affiliates and associates, owns, or within the previous three years owned, 15% or more of our voting stock.

Under certain circumstances, this provision will make it more difficult for a person who would be an “interested stockholder” to effect various business combinations with a corporation for a three-year period. This provision may encourage companies interested in acquiring our company to negotiate in advance with our board of directors because the stockholder approval requirement would be avoided if our board of directors approves either the business combination or the transaction which results in the stockholder becoming an interested stockholder. These provisions also may have the effect of preventing changes in our board of directors and may make it more difficult to accomplish transactions which stockholders may otherwise deem to be in their best interests.

The Certificate of Incorporation provides that (1) investment funds affiliated with Bain Capital Investors, LLC or Bain Capital Life Sciences Investors, LLC and their respective successors, transferees and affiliates, or (2) any person whose ownership of shares in excess of the 15% limitation set forth therein is the result of any action taken solely by us (*provided, that such person shall be an “interested stockholder” if such thereafter such person acquires additional shares of voting stock of us, except as a result of further corporate actions not caused by such person*) do not constitute “interested stockholders” for purposes of this provision.

Limitations on Liability and Indemnification of Officers and Directors

The Certificate of Incorporation limits the liability of our directors to the fullest extent permitted by the DGCL, and the Bylaws provide that we will indemnify them to the fullest extent permitted by such law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. Under the terms of such indemnification agreements, we are required to indemnify each of our directors and officers, to the fullest extent permitted by the laws of the state of Delaware, if the basis of the indemnitee’s involvement was by reason of the fact that the indemnitee is or was a director or officer of us or any of its subsidiaries or was serving at our request in an official capacity for another entity. We must indemnify our officers and directors against all reasonable fees, expenses, charges and other costs of any type or nature whatsoever, including any and all expenses and obligations paid or incurred in connection with investigating, defending, being a witness in, participating in (including on appeal), or preparing to defend, be a witness or participate in any completed, actual, pending or threatened action, suit, claim or proceeding, whether civil, criminal, administrative or investigative, or establishing or enforcing a right to indemnification under the indemnification agreement. The indemnification agreements also require us, if so requested, to advance within 10 days of such request all reasonable fees, expenses, charges and other costs that such director or officer incurred, provided that such person will return any such advance if it is ultimately determined that such person is not entitled to indemnification by us. Any claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Exclusive Jurisdiction of Certain Actions

The Bylaws require, to the fullest extent permitted by law, unless we consent in writing to the selection of an alternative forum, that derivative actions brought in the name of us, actions against directors, officers and employees for breach of fiduciary duty, actions asserting a claim arising pursuant to any provision of the DGCL or the Certificate of Incorporation or the Bylaws, actions to interpret, apply, enforce or determine the validity of the Certificate of Incorporation or the Bylaws and actions asserting a claim against us governed by the internal affairs doctrine may be brought only in the Court of Chancery in the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder’s counsel. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

In addition, the Bylaws require that, unless we consent in writing to the selection of an alternative forum, the United States District Court for the District of Massachusetts shall be the sole and exclusive forum for resolving any action asserting a claim arising under the Securities Act. We have chosen the United States District Court for the District of Massachusetts as the exclusive forum for such Securities Act causes of action because our principal executive offices are located in Cambridge, Massachusetts.

Warrants

Public Warrants

Each whole warrant entitles the registered holder to purchase one share of our common stock at a price of \$11.50 per share, subject to adjustment as discussed below, at any time commencing on the later of one year from the closing of ARYA’s initial public offering and 30 days after the completion of the Business Combination, provided in each case that we have an effective registration statement under the Securities Act covering the common stock issuable upon exercise of the warrants and a current prospectus relating to them is available (or we permit holders to exercise their warrants on a cashless basis under the circumstances specified in the warrant agreement) and such shares are registered, qualified or exempt from registration under the securities, or blue sky, laws of the state of residence of the holder. Pursuant to the warrant agreement, a warrant holder may exercise its warrants only for a whole number of shares of common stock. This means only a whole warrant may be exercised at a given time by a warrant holder. No fractional warrants will be issued upon separation of the units, and only whole warrants will trade. Accordingly, unless you hold at least three units, you will not be able to receive or trade a whole warrant. The warrants will expire five years after the completion of the Business Combination, at 5:00 p.m., New York City time, or earlier upon redemption or liquidation.

We will not be obligated to deliver any shares of common stock pursuant to the exercise of a warrant and will have no obligation to settle such warrant exercise unless a registration statement under the Securities Act with respect to the common stock underlying the warrants is then effective and a prospectus relating thereto is current, subject to our satisfying our obligations described below with respect to registration, or a valid exemption from registration is available. No warrant will be exercisable and we will not be obligated to issue a share of common stock upon exercise of a warrant unless the share of common stock issuable upon such warrant exercise has been registered, qualified or deemed to be exempt under the securities laws of the state of residence of the registered holder of the warrants. In the event that the conditions in the two immediately preceding sentences are not satisfied with respect to a warrant, the holder of such warrant will not be entitled to exercise such warrant and such warrant may have no value and expire worthless. In no event will we be required to net cash settle any warrant. In the event that a registration statement is not effective for the exercised warrants, the purchaser of a unit containing such warrant will have paid the full purchase price for the unit solely for the share of common stock underlying such unit.

We have agreed that as soon as practicable, but in no event later than 20 business days after the closing of the Business Combination, we will use our commercially reasonable efforts to file with the SEC a registration statement covering the shares of common stock issuable upon exercise of the warrants, and we will use our commercially reasonable efforts to cause the same to become effective within 60 business days after the closing of the Business Combination, and to maintain the effectiveness of such registration statement and a current prospectus relating to those shares of common stock until the warrants expire or are redeemed, as specified in the warrant agreement; provided that if our shares of common stock are at the time of any exercise of a warrant not listed on a national

securities exchange such that they satisfy the definition of a “covered security” under Section 18(b)(1) of the Securities Act, we may, at our option, require holders of public warrants who exercise their warrants to do so on a “cashless basis” in accordance with Section 3(a)(9) of the Securities Act and, in the event we so elect, we will not be required to file or maintain in effect a registration statement. If a registration statement covering the shares of common stock issuable upon exercise of the warrants is not effective by the 60th day after the closing of the Business Combination, warrant holders may, until such time as there is an effective registration statement and during any period when we will have failed to maintain an effective registration statement, exercise warrants on a “cashless basis” in accordance with Section 3(a)(9) of the Securities Act or another exemption, but we will use our best efforts to register or qualify the shares under applicable blue sky laws to the extent an exemption is not available.

Once the warrants become exercisable, we may call the warrants for redemption:

- in whole and not in part;
- at a price of \$0.01 per warrant;
- upon not less than 30 days’ prior written notice of redemption to each warrant holder; and
- if, and only if, the closing price of the common stock equals or exceeds \$18.00 per share (as adjusted for share splits, share capitalizations, reorganizations, recapitalizations and the like) for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date on which notice of the redemption is given to the warrant holder.

If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws.

We have established the last of the redemption criterion discussed above to prevent a redemption call unless there is at the time of the call a significant premium to the warrant exercise price. If the foregoing conditions are satisfied and we issue a notice of redemption of the warrants, each warrant holder will be entitled to exercise his, her or its warrant prior to the scheduled redemption date. However, the price of the shares of common stock may fall below the \$18.00 redemption trigger price (as adjusted for share splits, share capitalizations, reorganizations, recapitalizations and the like) as well as the \$11.50 (for whole shares) warrant exercise price after the redemption notice is issued.

Commencing ninety days after the warrants become exercisable, we may redeem the outstanding warrants:

- in whole and not in part;
- at \$0.10 per warrant upon a minimum of 30 days’ prior written notice of redemption, provided that holders will be able to exercise their warrants on a cashless basis prior to redemption and receive that number of shares determined by reference to the table below, based on the redemption date and the “fair market value” of our shares of common stock, except as otherwise described below;
- if, and only if, the closing price of our common stock equals or exceeds \$10.00 per share (as adjusted for share subdivisions, share dividends, reorganizations, reclassifications, recapitalizations and the like) on the trading day before we send the notice of redemption to the warrant holders;
- if, and only if, the private placement warrants are also concurrently called for redemption on the same terms as the outstanding public warrants, as described above; and
- if, and only if, there is an effective registration statement covering the issuance of common stock issuable upon exercise of the warrants and a current prospectus relating thereto available throughout the 30-day period after written notice of redemption is given.

The numbers in the table below represent the number of shares of common stock that a warrant holder will receive upon exercise in connection with a redemption by us pursuant to this redemption feature, based on the “fair market value” of the common stock on the corresponding redemption date (assuming holders elect to exercise their warrants and such warrants are not redeemed for \$0.10 per warrant), determined based on volume weighted average

price of the shares of common stock as reported during the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of warrants, and the number of months that the corresponding redemption date precedes the expiration date of the warrants, each as set forth in the table below.

The share prices set forth in the column headings of the table below will be adjusted as of any date on which the number of shares of common stock issuable upon exercise of a warrant is adjusted as set forth below in the first three paragraphs discussing anti-dilution adjustments. The adjusted share prices in the column headings will equal the share prices immediately prior to such adjustment, multiplied by a fraction, the numerator of which is the number of shares deliverable upon exercise of a warrant immediately prior to such adjustment and the denominator of which is the number of shares deliverable upon exercise of a warrant as so adjusted. The number of shares in the table below shall be adjusted in the same manner and at the same time as the number of shares issuable upon exercise of a warrant.

| Redemption Date | Fair Market Value of Common Stock | | | | | | | | |
|------------------------------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|
| (period to expiration of warrants) | <10.00 | 11.00 | 12.00 | 13.00 | 14.00 | 15.00 | 16.00 | 17.00 | >18.00 |
| 57 months | 0.257 | 0.277 | 0.294 | 0.310 | 0.324 | 0.337 | 0.348 | 0.358 | 0.365 |
| 54 months | 0.252 | 0.272 | 0.291 | 0.307 | 0.322 | 0.335 | 0.347 | 0.357 | 0.365 |
| 51 months | 0.246 | 0.268 | 0.287 | 0.304 | 0.320 | 0.333 | 0.346 | 0.357 | 0.365 |
| 48 months | 0.241 | 0.263 | 0.283 | 0.301 | 0.317 | 0.332 | 0.344 | 0.356 | 0.365 |
| 45 months | 0.235 | 0.258 | 0.279 | 0.298 | 0.315 | 0.330 | 0.343 | 0.356 | 0.365 |
| 42 months | 0.228 | 0.252 | 0.274 | 0.294 | 0.312 | 0.328 | 0.342 | 0.355 | 0.365 |
| 39 months | 0.221 | 0.246 | 0.269 | 0.290 | 0.309 | 0.325 | 0.340 | 0.354 | 0.365 |
| 36 months | 0.213 | 0.239 | 0.263 | 0.285 | 0.305 | 0.323 | 0.339 | 0.353 | 0.365 |
| 33 months | 0.205 | 0.232 | 0.257 | 0.280 | 0.301 | 0.320 | 0.337 | 0.352 | 0.365 |
| 30 months | 0.196 | 0.224 | 0.250 | 0.274 | 0.297 | 0.316 | 0.335 | 0.351 | 0.365 |
| 27 months | 0.185 | 0.214 | 0.242 | 0.268 | 0.291 | 0.313 | 0.332 | 0.350 | 0.365 |
| 24 months | 0.173 | 0.204 | 0.233 | 0.260 | 0.285 | 0.308 | 0.329 | 0.348 | 0.365 |
| 21 months | 0.161 | 0.193 | 0.223 | 0.252 | 0.279 | 0.304 | 0.326 | 0.347 | 0.365 |
| 18 months | 0.146 | 0.179 | 0.211 | 0.242 | 0.271 | 0.298 | 0.322 | 0.345 | 0.365 |
| 15 months | 0.130 | 0.164 | 0.197 | 0.230 | 0.262 | 0.291 | 0.317 | 0.342 | 0.365 |
| 12 months | 0.111 | 0.146 | 0.181 | 0.216 | 0.250 | 0.282 | 0.312 | 0.339 | 0.365 |
| 9 months | 0.090 | 0.125 | 0.162 | 0.199 | 0.237 | 0.272 | 0.305 | 0.336 | 0.365 |
| 6 months | 0.065 | 0.099 | 0.137 | 0.178 | 0.219 | 0.259 | 0.296 | 0.331 | 0.365 |
| 3 months | 0.034 | 0.065 | 0.104 | 0.150 | 0.197 | 0.243 | 0.286 | 0.326 | 0.365 |
| 0 months | — | — | 0.042 | 0.115 | 0.179 | 0.233 | 0.281 | 0.323 | 0.365 |

The exact fair market value and redemption date may not be set forth in the table above, in which case, if the fair market value is between two values in the table or the redemption date is between two redemption dates in the table, the number of shares of common stock to be issued for each warrant exercised will be determined by a straight-line interpolation between the number of shares set forth for the higher and lower fair market values and the earlier and later redemption dates, as applicable, based on a 365 or 366-day year, as applicable. For example, if the volume weighted average price of the shares of common stock as reported during the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of the warrants is \$11.00 per share, and at such time there are 57 months until the expiration of the warrants, holders may choose to, in connection with this redemption feature, exercise their warrants for 0.277 shares of common stock for each whole warrant. For an example where the exact fair market value and redemption date are not as set forth in the table above, if the volume weighted average price of the shares of common stock as reported during the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of the warrants is \$13.50 per share, and at such time there are 38 months until the expiration of the warrants, holders may choose to, in connection with this redemption feature, exercise their warrants for 0.298 shares of common stock for each whole warrant. In no event will the warrants be exercisable on a cashless basis in connection with this redemption feature for more than 0.365 shares of common stock per warrant (subject to adjustment). Finally, as reflected in the table above, if the warrants are out of the money and about to expire, they cannot be exercised on a cashless basis in connection with a redemption by us pursuant to this redemption feature, since they will not be exercisable for any shares of common stock.

This redemption feature differs from the typical warrant redemption features used in many other blank check offerings, which typically only provide for a redemption of warrants for cash (other than the private placement warrants) when the trading price for the shares of common stock exceeds \$18.00 per share for a specified period of time. This redemption feature is structured to allow for all of the outstanding warrants to be redeemed when the shares of common stock are trading at or above \$10.00 per share, which may be at a time when the trading price of our shares of common stock is below the exercise price of the warrants. We have established this redemption feature to provide us with the flexibility to redeem the warrants without the warrants having to reach the \$18.00 per share threshold set forth above. Holders choosing to exercise their warrants in connection with a redemption pursuant to this feature will, in effect, receive a number of shares of common stock for their warrants based on an option pricing model with a fixed volatility input. This redemption right provides us with an additional mechanism by which to redeem all of the outstanding warrants, and therefore have certainty as to our capital structure as the warrants would no longer be outstanding and would have been exercised or redeemed. We will be required to pay the applicable redemption price to warrant holders if we choose to exercise this redemption right and it will allow us to quickly proceed with a redemption of the warrants if we determine it is in our best interest to do so. As such, we would redeem the warrants in this manner when we believe it is in our best interest to update our capital structure to remove the warrants and pay the redemption price to the warrant holders.

As stated above, we can redeem the warrants when the shares of common stock are trading at a price starting at \$10.00, which is below the exercise price of \$11.50, because it will provide certainty with respect to our capital structure and cash position while providing warrant holders with the opportunity to exercise their warrants on a cashless basis for the applicable number of shares. If we choose to redeem the warrants when the shares of common stock are trading at a price below the exercise price of the warrants, this could result in the warrant holders receiving fewer shares of common stock than they would have received if they had chosen to wait to exercise their warrants for shares of common stock if and when such shares were trading at a price higher than the exercise price of \$11.50.

No fractional shares of common stock will be issued upon exercise. If, upon exercise, a holder would be entitled to receive a fractional interest in a share, we will round down to the nearest whole number of the number of shares of common stock to be issued to the holder. If, at the time of redemption, the warrants are exercisable for a security other than the shares of common stock pursuant to the warrant agreement, the warrants may be exercised for such security. At such time as the warrants become exercisable for a security other than the shares of common stock, we (or the surviving company) will use its commercially reasonable efforts to register under the Securities Act the security issuable upon the exercise of the warrants.

If we call the warrants for redemption when the price per share of common stock equals or exceeds \$18.00, our management will have the option to require any holder that wishes to exercise his, her or its warrant to do so on a “cashless basis” beginning on the third trading day prior to the date on which notice of the redemption is given to the holders of warrants. In determining whether to require all holders to exercise their warrants on a “cashless basis,” our management will consider, among other factors, our cash position, the number of warrants that are outstanding and the dilutive effect on our shareholders of issuing the maximum number of shares of common stock issuable upon the exercise of our warrants. If our management takes advantage of this option, all holders of warrants would pay the exercise price by surrendering their warrants for that number of shares equal to the lesser of (A) the quotient obtained by dividing (x) the product of the number of shares of common stock underlying the warrants, multiplied by the excess of the “fair market value” (defined below) over the exercise price of the warrants by (y) the fair market value and (B) 0.365. The “fair market value” will mean the average closing price of the shares of common stock for the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of warrants. If our management takes advantage of this option, the notice of redemption will contain the information necessary to calculate the number of shares of common stock to be received upon exercise of the warrants, including the “fair market value” in such case. Requiring a cashless exercise in this manner will reduce the number of shares to be issued and thereby lessen the dilutive effect of a warrant redemption. We believe this feature is an attractive option to us if we do not need the cash from the exercise of the warrants after the Business Combination. If we call our warrants for redemption and our management team does not take advantage of this option, the Sponsor and its permitted transferees would still be entitled to exercise their private placement warrants for cash or on a cashless basis using the same formula described above that other warrant holders would have been

required to use had all warrant holders been required to exercise their warrants on a cashless basis, as described in more detail below.

A holder of a warrant may notify us in writing in the event it elects to be subject to a requirement that such holder will not have the right to exercise such warrant, to the extent that after giving effect to such exercise, such person (together with such person's affiliates), to the warrant agent's actual knowledge, would beneficially own in excess of 4.9% or 9.8% (as specified by the holder) of the shares of common stock issued and outstanding immediately after giving effect to such exercise.

Anti-dilution Adjustments. If the number of outstanding shares of common stock is increased by a capitalization or share dividend payable in shares of common stock, or by a split-up of common stock or other similar event, then, on the effective date of such capitalization or share dividend, split-up or similar event, the number of shares of common stock issuable on exercise of each warrant will be increased in proportion to such increase in the outstanding shares of common stock. A rights offering made to all or substantially all holders of common stock entitling holders to purchase shares of common stock at a price less than the "historical fair market value" (as defined below) will be deemed a share dividend of a number of shares of common stock equal to the product of (i) the number of shares of common stock actually sold in such rights offering (or issuable under any other equity securities sold in such rights offering that are convertible into or exercisable for shares of common stock) and (ii) one minus the quotient of (x) the price per shares of common stock paid in such rights offering and (y) the historical fair market value. For these purposes, (i) if the rights offering is for securities convertible into or exercisable for common stock, in determining the price payable for shares of common stock, there will be taken into account any consideration received for such rights, as well as any additional amount payable upon exercise or conversion and (ii) "historical fair market value" means the volume weighted average price of shares of common stock as reported during the 10 trading day period ending on the trading day prior to the first date on which the shares of common stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive such rights.

In addition, if we, at any time while the warrants are outstanding and unexpired, pay a dividend or make a distribution in cash, securities or other assets to all or substantially all the holders of shares of common stock on account of such shares (or other securities into which the warrants are convertible), other than (a) as described above, (b) any cash dividends or cash distributions which, when combined on a per share basis with all other cash dividends and cash distributions paid on the shares of common stock during the 365-day period ending on the date of declaration of such dividend or distribution does not exceed \$0.50 (as adjusted to appropriately reflect any other adjustments and excluding cash dividends or cash distributions that resulted in an adjustment to the exercise price or to the number of shares of common stock issuable on exercise of each warrant) but only with respect to the amount of the aggregate cash dividends or cash distributions equal to or less than \$0.50 per share, or (c) to satisfy the redemption rights of the holders of shares of common stock in connection with the Business Combination, then the warrant exercise price will be decreased, effective immediately after the effective date of such event, by the amount of cash and/or the fair market value of any securities or other assets paid on each share of common stock in respect of such event.

If the number of outstanding shares of common stock is decreased by a consolidation, combination, reverse share split or reclassification of share of common stock or other similar event, then, on the effective date of such consolidation, combination, reverse share split, reclassification or similar event, the number of shares of common stock issuable on exercise of each warrant will be decreased in proportion to such decrease in outstanding shares of common stock.

Whenever the number of shares of common stock purchasable upon the exercise of the warrants is adjusted, as described above, the warrant exercise price will be adjusted by multiplying the warrant exercise price immediately prior to such adjustment by a fraction (x) the numerator of which will be the number of shares of common stock purchasable upon the exercise of the warrants immediately prior to such adjustment and (y) the denominator of which will be the number of shares of common stock so purchasable immediately thereafter.

In case of any reclassification or reorganization of the outstanding shares of common stock (other than those described above or that solely affects the par value of such shares of common stock), or in the case of any merger or

consolidation of us with or into another corporation (other than a consolidation or merger in which we are the continuing corporation and that does not result in any reclassification or reorganization of our outstanding shares of common stock), or in the case of any sale or conveyance to another corporation or entity of the assets or other property of us as an entirety or substantially as an entirety in connection with which we are dissolved, the holders of the warrants will thereafter have the right to purchase and receive, upon the basis and upon the terms and conditions specified in the warrants and in lieu of the shares of common stock immediately theretofore purchasable and receivable upon the exercise of the rights represented thereby, the kind and amount of shares of common stock or other securities or property (including cash) receivable upon such reclassification, reorganization, merger or consolidation, or upon a dissolution following any such sale or transfer, that the holder of the warrants would have received if such holder had exercised their warrants immediately prior to such event. If less than 70% of the consideration receivable by the holders of shares of common stock in such a transaction is payable in the form of shares of common stock in the successor entity that is listed for trading on a national securities exchange or is quoted in an established over-the-counter market, or is to be so listed for trading or quoted immediately following such event, and if the registered holder of the warrant properly exercises the warrant within thirty days following public disclosure of such transaction, the warrant exercise price will be reduced as specified in the warrant agreement based on the Black-Scholes value (as defined in the warrant agreement) of the warrant. The purpose of such exercise price reduction is to provide additional value to holders of the warrants when an extraordinary transaction occurs during the exercise period of the warrants pursuant to which the holders of the warrants otherwise do not receive the full potential value of the warrants.

The warrants are issued in registered form under a warrant agreement between Continental Stock Transfer & Trust Company, as warrant agent, and us. The warrant agreement provides that the terms of the warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision or correct any mistake, including to conform the provisions of the warrant agreement to the description of the terms of the warrants and the warrant agreement set forth in ARYA's prospectus for its initial public offering, but requires the approval by the holders of at least 50% of the then outstanding public warrants to make any change that adversely affects the interests of the registered holders.

The warrant holders do not have the rights or privileges of holders of shares of common stock and any voting rights until they exercise their warrants and receive shares of common stock.

No fractional warrants will be issued upon separation of the units and only whole warrants will trade. If, upon exercise of the warrants, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, round down to the nearest whole number the number of shares of common stock to be issued to the warrant holder.

We have agreed that, subject to applicable law, any action, proceeding or claim against us arising out of or relating in any way to the warrant agreement will be brought and enforced in the courts of the State of New York or the United States District Court for the Southern District of New York, and we irrevocably submit to such jurisdiction, which jurisdiction will be the exclusive forum for any such action, proceeding or claim. This provision applies to claims under the Securities Act but does not apply to claims under the Exchange Act or any claim for which the federal district courts of the United States of America are the sole and exclusive forum.

Private Placement Warrants

Except as described below, the private placement warrants have terms and provisions that are identical to those of the public warrants. The private placement warrants (including the shares of common stock issuable upon exercise of the private placement warrants) will not be transferable, assignable or salable until 30 days after the completion of the Business Combination, except pursuant to limited exceptions to our officers and directors and other persons or entities affiliated with the initial purchasers of the private placement warrants, and they will not be redeemable by us, except as described above when the price per share of common stock equals or exceeds \$10.00, so long as they are held by the Sponsor or its permitted transferees. The Sponsor, or its permitted transferees, has the option to exercise the private placement warrants on a cashless basis. If the private placement warrants are held by holders other than the Sponsor or its permitted transferees, the private placement warrants will be redeemable by us in all redemption scenarios and exercisable by the holders on the same basis as the public warrants. Any amendment to the terms of the private placement warrants or any provision of the warrant agreement with respect to the private

placement warrants will require a vote of holders of at least 50% of the number of the then outstanding private placement warrants.

Except as described above regarding redemption procedures and cashless exercise in respect of the public warrants, if holders of the private placement warrants elect to exercise them on a cashless basis, they would pay the exercise price by surrendering his, her or its warrants for that number of shares of common stock equal to the quotient obtained by dividing (x) the product of the number of shares of common stock underlying the warrants, multiplied by the excess of the “historical fair market value” (defined below) over the exercise price of the warrants by (y) the historical fair market value. The “historical fair market value” will mean the average reported closing price of the shares of common stock for the 10 trading days ending on the third trading day prior to the date on which the notice of warrant exercise is sent to the holders of warrants.

Transfer Agent and Warrant Agent

The transfer agent for our common stock and warrant agent for the public warrants and private placement warrants is the Continental Stock Transfer & Trust Company.

Stock Exchange Listing

Our common stock and warrants are listed on Nasdaq under the symbols “CERE” and “CEREW”, respectively.

SUBSCRIPTION AGREEMENT

ARYA Sciences Acquisition Corp II
51 Astor Place, 10th Floor
New York, New York 10002

Ladies and Gentlemen:

This Subscription Agreement (this “Subscription Agreement”) is being entered into as of the date set forth on the signature page hereto, by and between ARYA Sciences Acquisition Corp II, a Cayman Islands exempted company, which shall be domesticated as a Delaware corporation prior to the closing of the Transaction (as defined herein) (“ARYA”), and the undersigned subscriber (the “Investor”), in connection with the Business Combination Agreement, dated as of the date hereof (as may be amended, supplemented or otherwise modified from time to time, the “Transaction Agreement”), by and among ARYA, Cerevel Therapeutics, Inc., a Delaware corporation (the “Company”), Cassidy Merger Sub 1, Inc., a Delaware corporation (“Cassidy Merger Sub 1”), pursuant to which, among other things, Cassidy Merger Sub 1 will merge with and into the Company, with the Company as the surviving company in the merger and, after giving effect to such merger, becoming a wholly-owned subsidiary of ARYA, on the terms and subject to the conditions therein (such merger, the “Transaction”). In connection with the Transaction, ARYA is seeking commitments from interested investors to purchase, following the Domestication (as defined below) and prior to the closing of the Transaction, shares of ARYA’s common stock, par value \$0.0001 per share (the “Shares”), in a private placement for a purchase price of \$10.00 per share (the “Per Share Purchase Price”). On or about the date of this Subscription Agreement, ARYA is entering into subscription agreements (the “Other Subscription Agreements”) and together with the Subscription Agreement, the “Subscription Agreements”) with certain other investors (the “Other Investors”) and together with the Investor, the “Investors”), severally and not jointly, pursuant to which the Investors, severally and not jointly, have agreed to purchase on the closing date of the Transaction, inclusive of the Shares subscribed for by the Investor, an aggregate amount of up to 32,000,000 Shares, at the Per Share Purchase Price.

Prior to the closing of the Transaction (and as more fully described in the Transaction Agreement), ARYA will domesticate as a Delaware corporation in accordance with Section 388 of the General Corporation Law of the State of Delaware and Part XII of the Cayman Islands Companies Law (2020 Revision) (the “Domestication”). The aggregate purchase price to be paid by the Investor for the subscribed Shares (as set forth on the signature page hereto) is referred to herein as the “Subscription Amount.”

In connection therewith, and in consideration of the foregoing and the mutual representations, warranties and covenants, and subject to the conditions, set forth herein, and intending to be legally bound hereby, each of the Investor and ARYA acknowledges and agrees as follows:

1. Subscription. The Investor hereby irrevocably subscribes for and agrees to purchase from ARYA the number of Shares set forth on the signature page of this Subscription Agreement on the terms and subject to the conditions provided for herein. The Investor acknowledges and agrees that ARYA reserves the right to accept or reject the Investor’s subscription for the Shares for any reason or for no reason, in whole or in part, at any time prior to its acceptance, and the same shall be deemed to be accepted by ARYA only when this Subscription Agreement is signed by a duly authorized person by or on behalf of ARYA; ARYA may do so in counterpart form. The Investor acknowledges and agrees that, as a result of the Domestication, the Shares that will be purchased by the Investor and issued by ARYA pursuant hereto shall be shares of common stock in a Delaware corporation (and not, for the avoidance of doubt, ordinary shares in a Cayman Islands exempted company).

2. Closing. The closing of the sale of the Shares contemplated hereby (the “Closing”) is contingent upon the substantially concurrent consummation of the Transaction. The Closing shall occur on the date of, and substantially concurrently with and conditioned upon the effectiveness of, the Transaction. Upon (a) satisfaction or waiver of the conditions set forth in Section 3 below and (b) delivery of written notice from (or on behalf of) ARYA to the

Investor (the “Closing Notice”), that ARYA reasonably expects all conditions to the closing of the Transaction to be satisfied or waived on a date that is not less than five (5) business days from the date on which the Closing Notice is delivered to the Investor, the Investor shall deliver to ARYA, three (3) business days prior to the closing date specified in the Closing Notice (the “Closing Date”), the Subscription Amount by wire transfer of United States dollars in immediately available funds to the account(s) specified by ARYA in the Closing Notice (which account shall not be an escrow account). On the Closing Date, ARYA shall issue a number of Shares to the Investor set forth on the signature page to this Subscription Agreement and subsequently cause such Shares to be registered in book entry form in the name of the Investor on ARYA’s share register; provided, however, that ARYA’s obligation to issue the Shares to the Investor is contingent upon ARYA having received the Subscription Amount in full accordance with this Section 2. For purposes of this Subscription Agreement, “business day” shall mean a day, other than a Saturday or Sunday, on which commercial banks in New York, New York and Boston, Massachusetts are open for the general transaction of business.

3. Closing Conditions.

a. The obligation of the parties hereto to consummate the purchase and sale of the Shares pursuant to this Subscription Agreement is subject to the following conditions:

(i) no applicable governmental authority shall have enacted, issued, promulgated, enforced or entered any judgment, order, law, rule or regulation (whether temporary, preliminary or permanent) which is then in effect and has the effect of making consummation of the transactions contemplated hereby illegal or otherwise restraining or prohibiting consummation of the transactions contemplated hereby; and

(ii) (A) all conditions precedent to the closing of the Transaction under the Transaction Agreement shall have been satisfied (as determined by the parties to the Transaction Agreement and other than those conditions under the Transaction Agreement which, by their nature, are to be satisfied at the closing of the Transaction, including to the extent that any such condition is dependent upon the consummation of the purchase and sale of the Shares pursuant to this Subscription Agreement) or waived and (B) the closing of the Transaction shall be scheduled to occur concurrently with or on the same date as the Closing.

b. The obligation of ARYA to consummate the issuance and sale of the Shares pursuant to this Subscription Agreement shall be subject to the condition that all representations and warranties of the Investor contained in this Subscription Agreement are true and correct in all material respects at and as of the Closing Date, and consummation of the Closing shall constitute a reaffirmation by the Investor of each of the representations and warranties of the Investor contained in this Subscription Agreement as of the Closing Date.

c. The obligation of the Investor to consummate the purchase of the Shares pursuant to this Subscription Agreement shall be subject to the following conditions:

(i) that all representations and warranties of ARYA contained in this Subscription Agreement shall be true and correct in all material respects (other than representations and warranties that are qualified as to materiality or Material Adverse Effect (as defined herein), which representations and warranties shall be true in all respects) at and as of the Closing Date, and consummation of the Closing shall constitute a reaffirmation by ARYA of each of the representations and warranties of ARYA contained in this Subscription Agreement as of the Closing Date; and

(ii) ARYA shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Subscription Agreement to be performed, satisfied or complied with by it at or prior to the Closing.

4. Further Assurances. At the Closing, the parties hereto shall execute and deliver such additional documents and take such additional actions as the parties reasonably may deem to be practical and necessary in order to consummate the subscription as contemplated by this Subscription Agreement.

5. ARYA Representations and Warranties. ARYA represents and warrants to the Investor that:

- a. ARYA is an exempted company duly incorporated, validly existing and in good standing under the laws of the Cayman Islands (to the extent such concept exists in such jurisdiction). ARYA has all power (corporate or otherwise) and authority to own, lease and operate its properties and conduct its business as presently conducted and to enter into, deliver and perform its obligations under this Subscription Agreement. As of the Closing Date, following the Domestication, ARYA will be duly incorporated, validly existing as a corporation and in good standing under the laws of the State of Delaware.
- b. As of the Closing Date, the Shares will be duly authorized and, when issued and delivered to the Investor against full payment therefor in accordance with the terms of this Subscription Agreement, the Shares will be validly issued, fully paid and non-assessable and will not have been issued in violation of or subject to any preemptive or similar rights created under ARYA's certificate of incorporation (as amended to the Closing Date) or under the General Corporation Law of the State of Delaware.
- c. This Subscription Agreement has been duly authorized, executed and delivered by ARYA and, assuming that this Subscription Agreement constitutes the valid and binding agreement of the Investor, this Subscription Agreement is enforceable against ARYA in accordance with its terms, except as may be limited or otherwise affected by (i) bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium or other laws relating to or affecting the rights of creditors generally, or (ii) principles of equity, whether considered at law or equity.
- d. The issuance and sale of the Shares and the compliance by ARYA with all of the provisions of this Subscription Agreement and the consummation of the transactions contemplated herein will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any of the property or assets of ARYA or any of its subsidiaries pursuant to the terms of (i) any indenture, mortgage, deed of trust, loan agreement, lease, license or other agreement or instrument to which ARYA or any of its subsidiaries is a party or by which ARYA or any of its subsidiaries is bound or to which any of the property or assets of ARYA is subject that would reasonably be expected to have a material adverse effect on the business, financial condition or results of operations of ARYA and its subsidiaries, taken as a whole (a "Material Adverse Effect") or materially affect the validity of the Shares or the legal authority of ARYA to comply in all material respects with the terms of this Subscription Agreement; (ii) result in any violation of the provisions of the organizational documents of ARYA; or (iii) result in any violation of any statute or any judgment, order, rule or regulation of any court or governmental agency or body, domestic or foreign, having jurisdiction over ARYA or any of their properties that would reasonably be expected to have a Material Adverse Effect or materially affect the validity of the Shares or the legal authority of ARYA to comply in all material respects with this Subscription Agreement.
- e. As of their respective dates, all reports (the "SEC Reports") required to be filed by ARYA with the U.S. Securities and Exchange Commission (the "SEC") complied in all material respects with the applicable requirements of the Securities Act of 1933, as amended, (the "Securities Act") and the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations of the SEC promulgated thereunder, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of ARYA included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing and fairly present in all material respects the financial position of ARYA as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, year-end audit adjustments. A copy of each SEC Report is available to the Investor via the SEC's EDGAR system. There are no outstanding or unresolved comments in comment letters received by ARYA from the staff of the Division of Corporation Finance of the SEC with respect to any of the SEC Reports.
- f. Other than the Other Subscription Agreements, the Transaction Agreement and any other agreement expressly contemplated by the Transaction Agreement, ARYA has not entered into any side letter or similar agreement with any investor in connection with such investor's direct or indirect investment in ARYA or with any other investor,

and such Other Subscription Agreements have not been amended in any material respect following the date of this Subscription Agreement.

g. ARYA is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority, self-regulatory organization or other person in connection with the execution, delivery and performance by ARYA of this Subscription Agreement (including, without limitation, the issuance of the Shares), other than (i) filings with the SEC, (ii) filings required by applicable state securities laws, (iii) filings required by the Nasdaq, or such other applicable stock exchange on which ARYA's common stock is then listed (the "Stock Exchange"), and (iv) the failure of which to obtain would not be reasonably likely to have, individually or in the aggregate, a Material Adverse Effect.

h. As of the date of this Subscription Agreement, the authorized capital stock of ARYA consists of 1,000,000 preference shares ("Preferred Shares"), 479,000,000 Class A ordinary shares ("Class A Shares"), and 20,000,000 Class B ordinary shares (the "Class B Shares"), each par value \$0.0001 per share. As of the date of this Subscription Agreement, (i) no Preferred Shares are issued and outstanding, (ii) 15,449,000 Class A Shares are issued and outstanding, (iii) 3,737,500 Class B Shares are issued and outstanding and (iv) 4,983,333 redeemable warrants and 166,333 private placement warrants to acquire Class A Shares are outstanding. Following the Domestication, and immediately prior to the closing of the Transaction (assuming that all shares to be issued pursuant to the Subscription Agreements have been issued and that no holders of Class A Shares have validly elected to redeem their shares in connection with the closing of the Transaction), the authorized capital stock of ARYA will consist of 10,000,000 shares of preferred stock, par value \$0.0001 per share ("Delaware Preferred Shares") and 500,000,000 shares of common stock, par value \$0.0001 per share ("Delaware Common Shares"), of which (1) no Delaware Preferred Shares will be issued and outstanding, (2) a number of Delaware Common Shares will be issued and outstanding as set forth in Section 4.6(b) of the Transaction Agreement, subject in all respects to the assumptions referenced in such section, and (3) 4,983,333 redeemable warrants and 166,333 private placement warrants to acquire Delaware Common Shares will be outstanding. All (A) issued and outstanding Class A Shares and Class B Shares have been duly authorized and validly issued, are fully paid and are non-assessable and (B) outstanding warrants have been duly authorized and validly issued. Except as set forth above and pursuant to the Other Subscription Agreements, the Transaction Agreement and the other agreements and arrangements referred to therein, as of the date hereof, there are no outstanding options, warrants or other rights to subscribe for, purchase or acquire from ARYA any Class A Shares, Class B Shares or other equity interests in ARYA, or securities convertible into or exchangeable or exercisable for such equity interests. As of the date hereof, ARYA has no subsidiaries, other than Cassidy Merger Sub 1, and does not own, directly or indirectly, interests or investments (whether equity or debt) in any person, whether incorporated or unincorporated. There are no stockholder agreements, voting trusts or other agreements or understandings to which ARYA is a party or by which it is bound relating to the voting of any securities of ARYA, other than (1) as set forth in the SEC Reports and (2) as contemplated by the Transaction Agreement.

i. The issued and outstanding Class A Shares are registered pursuant to Section 12(b) of the Exchange Act, and are listed for trading on the Stock Exchange. As of the date hereof, there is no suit, action, proceeding or investigation pending or, to the knowledge of ARYA, threatened against the ARYA by the Stock Exchange or the SEC, respectively, to prohibit or terminate the listing of the Class A Shares or, when issued, the Delaware Common Shares, or to deregister the Class A Shares or, when registered and issued in connection with the Domestication, the Delaware Common Shares, under the Exchange Act. ARYA has taken no action that is designed to terminate the registration of the Class A Shares under the Exchange Act, other than in connection with the Domestication and subsequent registration under the Exchange Act of the Delaware Common Shares.

j. Assuming the accuracy of the Investor's representations and warranties set forth in Section 6, no registration under the Securities Act is required for the offer and sale of the Shares by ARYA to the Investor hereunder. The Shares (i) were not offered by any form of general solicitation or general advertising and (ii) are not being offered in a manner involving a public offering under, or in a distribution in violation of, the Securities Act, or any state securities laws.

k. Except for such matters as have not had and would not be reasonably likely to have, individually or in the aggregate, a Material Adverse Effect, there is no (i) action, suit, claim or other proceeding, in each case by or before

any governmental authority pending, or, to the knowledge of ARYA, threatened against ARYA or (ii) judgment, decree, injunction, ruling or order of any governmental entity or arbitrator outstanding against ARYA.

1. Other than the Placement Agents (as defined below), ARYA has not engaged any broker, finder, commission agent, placement agent or arranger in connection with the sale of the Shares, and ARYA is not under any obligation to pay any broker's fee or commission in connection with the sale of the Shares other than to the Placement Agents.

6. Investor Representations and Warranties. The Investor represents and warrants to ARYA that:

a. The Investor (i) is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) or an institutional "accredited investor" (within the meaning of Rule 501(a) under the Securities Act), in each case, satisfying the applicable requirements set forth on Schedule A, (ii) is acquiring the Shares only for his, her or its own account and not for the account of others, or if the Investor is subscribing for the Shares as a fiduciary or agent for one or more investor accounts, the Investor has full investment discretion with respect to each such account, and the full power and authority to make the acknowledgements, representations and agreements herein on behalf of each owner of each such account, and (iii) is not acquiring the Shares with a view to, or for offer or sale in connection with, any distribution thereof in violation of the Securities Act (and shall provide the requested information set forth on Schedule A). The Investor is not an entity formed for the specific purpose of acquiring the Shares.

b. The Investor acknowledges and agrees that the Shares are being offered in a transaction not involving any public offering within the meaning of the Securities Act and that the Shares have not been registered under the Securities Act. The Investor acknowledges and agrees that the Shares may not be offered, resold, transferred, pledged or otherwise disposed of by the Investor absent an effective registration statement under the Securities Act except (i) to ARYA or a subsidiary thereof, (ii) to non-U.S. persons pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act or (iii) pursuant to another applicable exemption from the registration requirements of the Securities Act, and in each of clauses (i) and (iii) in accordance with any applicable securities laws of the states and other jurisdictions of the United States, and that any certificates representing the Shares shall contain a restrictive legend to such effect. The Investor acknowledges and agrees that the Shares will be subject to transfer restrictions and, as a result of these transfer restrictions, the Investor may not be able to readily offer, resell, transfer, pledge or otherwise dispose of the Shares and may be required to bear the financial risk of an investment in the Shares for an indefinite period of time. The Investor acknowledges and agrees that the Shares will not be eligible for offer, resale, transfer, pledge or disposition pursuant to Rule 144 promulgated under the Securities Act until at least one year from the date that ARYA files a Current Report on Form 8-K following the Closing Date that includes the "Form 10" information required under applicable SEC rules and regulations. The Investor acknowledges and agrees that it has been advised to consult legal counsel prior to making any offer, resale, transfer, pledge or disposition of any of the Shares.

c. The Investor acknowledges and agrees that the Investor is purchasing the Shares from ARYA. The Investor further acknowledges that there have been no representations, warranties, covenants and agreements made to the Investor by or on behalf of ARYA, the Company, any of their respective affiliates or any control persons, officers, directors, employees, partners, agents or representatives of any of the foregoing or any other person or entity, expressly or by implication, other than those representations, warranties, covenants and agreements of ARYA expressly set forth in Section 5 of this Subscription Agreement.

d. The Investor's acquisition and holding of the Shares will not constitute or result in a non-exempt prohibited transaction under Section 406 of the Employee Retirement Income Security Act of 1974, as amended, Section 4975 of the Internal Revenue Code of 1986, as amended, or any applicable similar law.

e. The Investor acknowledges and agrees that the Investor has received such information as the Investor deems necessary in order to make an investment decision with respect to the Shares, including, with respect to ARYA, the Transaction and the business of the Company and its subsidiaries. Without limiting the generality of the foregoing, the Investor acknowledges that he, she or it has reviewed the SEC Reports. The Investor acknowledges and agrees that the Investor and the Investor's professional advisor(s), if any, have had the full opportunity to ask such

questions, receive such answers and obtain such information as the Investor and such Investor's professional advisor(s), if any, have deemed necessary to make an investment decision with respect to the Shares.

f. The Investor became aware of this offering of the Shares solely by means of direct contact between the Investor and ARYA, the Company or a representative of ARYA or the Company, and the Shares were offered to the Investor solely by direct contact between the Investor and ARYA, the Company or a representative of ARYA or the Company. The Investor did not become aware of this offering of the Shares, nor were the Shares offered to the Investor, by any other means. The Investor acknowledges that the Shares (i) were not offered by any form of general solicitation or general advertising and (ii) are not being offered in a manner involving a public offering under, or in a distribution in violation of, the Securities Act, or any state securities laws. The Investor acknowledges that it is not relying upon, and has not relied upon, any statement, representation or warranty made by any person, firm or corporation (including, without limitation, ARYA, the Company, the Placement Agents (defined below), any of their respective affiliates or any control persons, officers, directors, employees, partners, agents or representatives of any of the foregoing), other than the representations and warranties of ARYA contained in Section 5 of this Subscription Agreement, in making its investment or decision to invest in ARYA.

g. The Investor acknowledges that it is aware that there are substantial risks incident to the purchase and ownership of the Shares, including those set forth in ARYA's filings with the SEC. The Investor has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of an investment in the Shares, and the Investor has sought such accounting, legal and tax advice as the Investor has considered necessary to make an informed investment decision.

h. Alone, or together with any professional advisor(s), the Investor has analyzed and considered the risks of an investment in the Shares and determined that the Shares are a suitable investment for the Investor and that the Investor is able at this time and in the foreseeable future to bear the economic risk of a total loss of the Investor's investment in ARYA. The Investor acknowledges specifically that a possibility of total loss exists.

i. In making its decision to purchase the Shares, the Investor has relied solely upon independent investigation made by the Investor. Without limiting the generality of the foregoing, the Investor has not relied on any statements or other information provided by or on behalf of the Placement Agents or any of their respective affiliates or any control persons, officers, directors, employees, partners, agents or representatives of any of the foregoing concerning ARYA, the Company, the Transaction, the Transaction Agreement, this Subscription Agreement or the transactions contemplated hereby or thereby, the Shares or the offer and sale of the Shares.

j. The Investor acknowledges and agrees that no federal or state agency has passed upon or endorsed the merits of the offering of the Shares or made any findings or determination as to the fairness of this investment.

k. The Investor, if not an individual, has been duly formed or incorporated and is validly existing and is in good standing under the laws of its jurisdiction of formation or incorporation, with power and authority to enter into, deliver and perform its obligations under this Subscription Agreement.

l. The execution, delivery and performance by the Investor of this Subscription Agreement are within the powers of the Investor, have been duly authorized and will not constitute or result in a breach or default under or conflict with any order, ruling or regulation of any court or other tribunal or of any governmental commission or agency, or any agreement or other undertaking, to which the Investor is a party or by which the Investor is bound, and, if the Investor is not an individual, will not violate any provisions of the Investor's organizational documents, including, without limitation, its incorporation or formation papers, bylaws, indenture of trust or partnership or operating agreement, as may be applicable. The signature on this Subscription Agreement is genuine, and the signatory, if the Investor is an individual, has legal competence and capacity to execute the same or, if the Investor is not an individual, the signatory has been duly authorized to execute the same, and this Subscription Agreement constitutes a legal, valid and binding obligation of the Investor, enforceable against the Investor in accordance with its terms except as may be limited or otherwise affected by (i) bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium or other laws relating to or affecting the rights of creditors generally, and (ii) principles of equity, whether considered at law or equity.

m. The Investor is not (i) a person or entity named on the List of Specially Designated Nationals and Blocked Persons administered by the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC") or in any Executive Order issued by the President of the United States and administered by OFAC ("OFAC List"), or a person or entity prohibited by any OFAC sanctions program, (ii) a Designated National as defined in the Cuban Assets Control Regulations, 31 C.F.R. Part 515, or (iii) a non-U.S. shell bank or providing banking services indirectly to a non-U.S. shell bank (each, a "Prohibited Investor"). The Investor agrees to provide law enforcement agencies, if requested thereby, such records as required by applicable law, provided that the Investor is permitted to do so under applicable law. If the Investor is a financial institution subject to the Bank Secrecy Act (31 U.S.C. Section 5311 et seq.) (the "BSA"), as amended by the USA PATRIOT Act of 2001 (the "PATRIOT Act"), and its implementing regulations (collectively, the "BSA/PATRIOT Act"), the Investor maintains policies and procedures reasonably designed to comply with applicable obligations under the BSA/PATRIOT Act. To the extent required, it maintains policies and procedures reasonably designed for the screening of its investors against the OFAC sanctions programs, including the OFAC List. To the extent required by applicable law, the Investor maintains policies and procedures reasonably designed to ensure that the funds held by the Investor and used to purchase the Shares were legally derived.

n. The Investor acknowledges that no disclosure or offering document has been prepared by Jefferies LLC, Goldman Sachs & Co. LLC or any of their respective affiliates (collectively, the "Placement Agents") in connection with the offer and sale of the Shares.

o. The Investor acknowledges that neither Placement Agent, nor any of its respective affiliates nor any control persons, officers, directors, employees, partners, agents or representatives of any of the foregoing have made any independent investigation with respect to ARYA, the Company or its subsidiaries or any of their respective businesses, or the Shares or the accuracy, completeness or adequacy of any information supplied to the Investor by ARYA.

p. The Investor acknowledges that in connection with the issue and purchase of the Shares, neither Placement Agent has acted as the Investor's financial advisor or fiduciary.

q. The Investor has or has commitments to have and, when required to deliver payment to ARYA pursuant to Section 2 above, will have, sufficient funds to pay the Subscription Amount and consummate the purchase and sale of the Shares pursuant to this Subscription Agreement.

7. Registration Rights(a) .

(a) In the event that the Shares are not registered in connection with the consummation of the Transaction, ARYA agrees that, within thirty (30) calendar days after the Closing Date (the "Filing Date"), it will file with the SEC (at its sole cost and expense) a registration statement registering the resale of the Shares (the "Registration Statement"), and it shall use its commercially reasonable efforts to have the Registration Statement declared effective as soon as practicable after the filing thereof, but no later than the earlier of (i) sixty (60) calendar days (or ninety (90) calendar days if the SEC notifies ARYA that it will "review" the Registration Statement) following the Filing Date and (ii) ten (10) Business Days after ARYA is notified (orally or in writing, whichever is earlier) by the SEC that the Registration Statement will not be "reviewed" or will not be subject to further review (such earlier date, the "Effectiveness Date"). ARYA agrees to cause such Registration Statement, or another shelf registration statement that includes the Shares to be sold pursuant to this Subscription Agreement, to remain effective until the earliest of (x) the fourth anniversary of the Closing, (y) the date on which the Investor ceases to hold any Shares issued pursuant to this Subscription Agreement, or (z) on the first date on which the Investor is able to sell all of its Shares issued pursuant to this Subscription Agreement (or shares received in exchange therefor) under Rule 144 of the Securities Act within 90 days without limitation as to the amount of such securities that may be sold and without the requirement for ARYA to be in compliance with the current public information required under Rule 144(c)(i) (or Rule 144(i)(2), if applicable) (the "Effectiveness Period"). The Investor agrees to disclose its ownership to ARYA upon request to assist it in making the determination described above. In no event shall the Investor be identified as a statutory underwriter in the Registration Statement unless requested by the SEC; *provided*, that if the SEC requests that the Investor be identified as a statutory underwriter in the Registration Statement, the Investor will have an opportunity to withdraw its Shares from the Registration Statement. Notwithstanding the foregoing, if the SEC prevents ARYA from including any or all of the shares proposed to be registered under the Registration Statement

due to limitations on the use of Rule 415 of the Securities Act for the resale of the Shares by the applicable shareholders or otherwise, such Registration Statement shall register for resale such number of Shares which is equal to the maximum number of Shares as is permitted by the SEC. In such event, the number of Shares to be registered for each selling shareholder named in the Registration Statement shall be reduced pro rata among all such selling shareholders. For as long as the Registration Statement shall remain effective pursuant to this Section 7(a), ARYA will use commercially reasonable efforts to (1) qualify the Shares for listing on the Stock Exchange, and (2) update or amend the Registration Statement as necessary to include the Shares. For as long as the Investor holds the Shares, ARYA will use commercially reasonable efforts to file all reports, and provide all customary and reasonable cooperation, necessary to enable the undersigned to resell the Shares pursuant to the Registration Statement or Rule 144 of the Securities Act (when Rule 144 of the Securities Act becomes available to the Investor), as applicable. Notwithstanding anything to the contrary contained herein, ARYA may delay or postpone filing of such Registration Statement, and from time to time require the Investor not to sell under the Registration Statement or suspend the use or effectiveness of any such Registration Statement, if the board of directors of ARYA determines in good faith that either in order for the Registration Statement to not contain a material misstatement or omission, an amendment thereto would be needed, or if such filing or use could materially affect a bona fide business or financing transaction of ARYA or would require premature disclosure of information that could materially adversely affect ARYA (each such circumstance, a “Suspension Event”); provided, that, (I) ARYA shall not so delay filing or so suspend the use of the Registration Statement for a period of more than ninety (90) consecutive days or more than a total of one hundred-twenty (120) calendar days, in each case in any three hundred sixty (360) day period and (II) ARYA shall use commercially reasonable efforts to make such Registration Statement available for the sale by the undersigned of such securities as soon as practicable thereafter. If so directed by ARYA, the Investor will deliver to ARYA or, in the Investor’s sole discretion destroy, all copies of the prospectus covering the Shares in the Investor’s possession; provided, however, that this obligation to deliver or destroy all copies of the prospectus covering the Shares shall not apply (i) to the extent the Investor is required to retain a copy of such prospectus (A) in order to comply with applicable legal or regulatory requirements or (B) in accordance with a bona fide pre-existing document retention policy or (ii) to copies stored electronically on archival servers as a result of automatic data back-up. ARYA’s obligations to include the Shares issued pursuant to this Subscription Agreement (or shares issued in exchange therefor) for resale in the Registration Statement are contingent upon the Investor furnishing in writing to ARYA such information regarding the Investor, the securities of ARYA held by the Investor and the intended method of disposition of such Shares, which shall be limited to non-underwritten public offerings, as shall be reasonably requested by ARYA to effect the registration of such Shares, and shall execute such documents in connection with such registration as ARYA may reasonably request that are customary of a selling stockholder in similar situations.

(b) At its expense ARYA shall advise the Investor within two (2) Business Days: (i) when a Registration Statement or any post-effective amendment thereto has become effective; (ii) of any request by the SEC for amendments or supplements to any Registration Statement or the prospectus included therein or for additional information; (iii) of the issuance by the SEC of any stop order suspending the effectiveness of any Registration Statement or the initiation of any proceedings for such purpose; (iv) of the receipt by ARYA of any notification with respect to the suspension of the qualification of the Shares included therein for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; and (v) subject to the provisions in this Subscription Agreement, of the occurrence of any event that requires the making of any changes in any Registration Statement or prospectus so that, as of such date, the statements therein are not misleading and do not omit to state a material fact required to be stated therein or necessary to make the statements therein (in the case of a prospectus, in the light of the circumstances under which they were made) not misleading. Upon receipt of any written notice from ARYA (which notice shall not contain any material non-public information regarding ARYA) of the happening of any of the foregoing or of a Suspension Event during the period that the Registration Statement is effective or if as a result of a Suspension Event the Registration Statement or related prospectus contains any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made (in the case of the prospectus) not misleading, the undersigned agrees that (1) it will immediately discontinue offers and sales of the Shares under the Registration Statement (excluding, for the avoidance of doubt, sales conducted pursuant to Rule 144) until the undersigned receives copies of a supplemental or amended prospectus (which ARYA agrees to promptly prepare) that corrects the misstatement(s) or omission(s) referred to above and receives notice that any post-effective amendment has become effective or unless otherwise notified by ARYA that it may resume such offers and sales, and (2) it will maintain the confidentiality of any information included in such written notice delivered by ARYA except (A) for disclosure to the Investor’s employees, agents and professional advisers who need to know such information and are obligated to

keep it confidential, (B) for disclosures to the extent required in order to comply with reporting obligations to its limited partners who have agreed to keep such information confidential and (C) as required by law or subpoena. ARYA shall use its commercially reasonable efforts to obtain the withdrawal of any order suspending the effectiveness of any Registration Statement as soon as reasonably practicable. Upon the occurrence of any event contemplated in clauses (i) through (v) above, except for such times as ARYA is permitted hereunder to suspend, and has suspended, the use of a prospectus forming part of a Registration Statement, ARYA shall use its commercially reasonable efforts to as soon as reasonably practicable prepare a post-effective amendment to such Registration Statement or a supplement to the related prospectus, or file any other required document so that, as thereafter delivered to purchasers of the Shares included therein, such prospectus will not include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) Indemnification.

(i) ARYA agrees to indemnify and hold harmless, to the extent permitted by law, the Investor, its directors, and officers, employees, and agents, and each person who controls the Investor (within the meaning of the Securities Act or the Exchange Act) and each affiliate of the Investor (within the meaning of Rule 405 under the Securities Act) from and against any and all losses, claims, damages, liabilities and expenses (including, without limitation, any attorneys' fees and expenses incurred in connection with defending or investigating any such action or claim) caused by any untrue or alleged untrue statement of material fact contained in any Registration Statement, prospectus included in any Registration Statement ("Prospectus") or preliminary Prospectus or any amendment thereof or supplement thereto or any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as the same are caused by or contained in any information furnished in writing to ARYA by or on behalf of the Investor expressly for use therein.

(ii) The Investor agrees, severally and not jointly with any other person that is a party to the Other Subscription Agreements, to indemnify and hold harmless ARYA, its directors and officers and agents and each person who controls ARYA (within the meaning of the Securities Act) against any losses, claims, damages, liabilities and expenses (including, without limitation, reasonable attorneys' fees) resulting from any untrue statement of material fact contained in the Registration Statement, Prospectus or preliminary Prospectus or any amendment thereof or supplement thereto or any omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, but only to the extent that such untrue statement or omission is contained in any information or affidavit so furnished in writing by the Investor expressly for use therein. In no event shall the liability of the Investor be greater in amount than the dollar amount of the net proceeds received by such Investor upon the sale of the Shares purchased pursuant to this Subscription Agreement giving rise to such indemnification obligation.

(iii) Any person entitled to indemnification herein shall (1) give prompt written notice to the indemnifying party of any claim with respect to which it seeks indemnification (provided that the failure to give prompt notice shall not impair any person's right to indemnification hereunder to the extent such failure has not prejudiced the indemnifying party) and (2) permit such indemnifying party to assume the defense of such claim with counsel reasonably satisfactory to the indemnified party. If such defense is assumed, the indemnifying party shall not be subject to any liability for any settlement made by the indemnified party without its consent. An indemnifying party who elects not to assume the defense of a claim shall not be obligated to pay the fees and expenses of more than one counsel for all parties indemnified by such indemnifying party with respect to such claim, unless in the reasonable judgment of legal counsel to any indemnified party a conflict of interest exists between such indemnified party and any other of such indemnified parties with respect to such claim. No indemnifying party shall, without the consent of the indemnified party, consent to the entry of any judgment or enter into any settlement which cannot be settled in all respects by the payment of money (and such money is so paid by the indemnifying party pursuant to the terms of such settlement) or which settlement does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect to such claim or litigation.

(iv) The indemnification provided for under this Subscription Agreement shall remain in full force and effect regardless of any investigation made by or on behalf of the indemnified party or any officer, director, employee, agent, affiliate or controlling person of such indemnified party and shall survive the transfer of the Shares purchased pursuant to this Subscription Agreement.

(v) If the indemnification provided under this Section 7(c) from the indemnifying party is unavailable or insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities and expenses referred to herein, then the indemnifying party, in lieu of indemnifying the indemnified party, shall contribute to the amount paid or payable by the indemnified party as a result of such losses, claims, damages, liabilities and expenses in such proportion as is appropriate to reflect the relative fault of the indemnifying party and the indemnified party, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and indemnified party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact, was made by, or relates to information supplied by, such indemnifying party or indemnified party, and the indemnifying party's and indemnified party's relative intent, knowledge, access to information and opportunity to correct or prevent such action. The amount paid or payable by a party as a result of the losses or other liabilities referred to above shall be deemed to include, subject to the limitations set forth above, any legal or other fees, charges or expenses reasonably incurred by such party in connection with any investigation or proceeding. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution pursuant to this Section 7(c) from any person who was not guilty of such fraudulent misrepresentation.

8. Termination. This Subscription Agreement shall terminate and be void and of no further force and effect, and all rights and obligations of the parties hereunder shall terminate without any further liability on the part of any party in respect thereof, upon the earlier to occur of (a) such date and time as the Transaction Agreement is terminated in accordance with its terms, (b) upon the mutual written agreement of each of the parties hereto and the Company to terminate this Subscription Agreement, (c) ARYA's notification to the Investor in writing that it has, with the written consent of the Company, abandoned its plans to move forward with the Transaction and/or terminated the Investor's obligations with respect to the subscription without the delivery of the Shares having occurred, (d) the Termination Date (as defined in the Transaction Agreement), if the Closing has not occurred by such date, or (e) if any of the conditions to Closing set forth in Section 3 of this Subscription Agreement are not satisfied or waived, or are not capable of being satisfied, on or prior to the Closing and, as a result thereof, the transactions contemplated by this Subscription Agreement will not be and are not consummated at the Closing (the termination events described in clauses (a)–(e) above, collectively, the "Termination Events"); provided that nothing herein will relieve any party from liability for any willful breach hereof prior to the time of termination, and each party will be entitled to any remedies at law or in equity to recover losses, liabilities or damages arising from any such willful breach. ARYA shall notify the Investor of the termination of the Transaction Agreement promptly after the termination of such agreement. Upon the occurrence of any Termination Event, this Subscription Agreement shall be void and of no further effect and any monies paid by the Investor to ARYA in connection herewith shall promptly (and in any event within one business day) following the Termination Event be returned to the Investor.

9. Trust Account Waiver. The Investor acknowledges that ARYA is a blank check company with the powers and privileges to effect a merger, asset acquisition, reorganization or similar business combination involving ARYA and one or more businesses or assets. The Investor further acknowledges that, as described in ARYA's prospectus relating to its initial public offering dated June 4, 2020 (the "Prospectus") available at www.sec.gov, substantially all of ARYA's assets consist of the cash proceeds of ARYA's initial public offering and private placement of its securities, and substantially all of those proceeds have been deposited in a trust account (the "Trust Account") for the benefit of ARYA, its public shareholders and the underwriters of ARYA's initial public offering. Except with respect to interest earned on the funds held in the Trust Account that may be released to ARYA to pay its tax obligations, if any, the cash in the Trust Account may be disbursed only for the purposes set forth in the Prospectus. For and in consideration of ARYA entering into this Subscription Agreement, the receipt and sufficiency of which are hereby acknowledged, the Investor hereby irrevocably waives any and all right, title and interest, or any claim of any kind it has or may have in the future, in or to any monies held in the Trust Account, and agrees not to seek recourse against the Trust Account as a result of, or arising out of, this Subscription Agreement; provided, however, that nothing in this Section 9 shall be deemed to limit the Investor's right, title, interest or claim to any monies held in the Trust Account by virtue of its record or beneficial ownership of Class A Shares currently outstanding on the date hereof, pursuant to a validly exercised redemption right with respect to any such Class A Shares, except to the extent that the Investor has otherwise agreed with ARYA to not exercise such redemption right.

10. Miscellaneous.

- a. Neither this Subscription Agreement nor any rights that may accrue to the Investor hereunder (other than the Shares acquired hereunder, if any) may be transferred or assigned.
- b. ARYA may request from the Investor such additional information as ARYA may deem necessary to register the resale of the Shares and evaluate the eligibility of the Investor to acquire the Shares, and the Investor shall provide such information as may reasonably be requested. The Investor acknowledges that ARYA may file a copy of this Subscription Agreement with the SEC as an exhibit to a periodic report or a registration statement of ARYA.
- c. The Investor acknowledges that ARYA, the Company, the Placement Agents and others will rely on the acknowledgments, understandings, agreements, representations and warranties contained in this Subscription Agreement. Prior to the Closing, the Investor agrees to promptly notify ARYA, the Company and the Placement Agents if any of the acknowledgments, understandings, agreements, representations and warranties set forth in Section 6 above are no longer accurate. The Investor acknowledges and agrees that each purchase by the Investor of Shares from ARYA will constitute a reaffirmation of the acknowledgments, understandings, agreements, representations and warranties herein (as modified by any such notice) by the Investor as of the time of such purchase.
- d. ARYA, the Company and the Placement Agents are each entitled to rely upon this Subscription Agreement and each is irrevocably authorized to produce this Subscription Agreement or a copy hereof to any interested party in any administrative or legal proceeding or official inquiry with respect to the matters covered hereby; provided, however, that the foregoing clause of this Section 10(d) shall not give the Company or the Placement Agents any rights other than those expressly set forth herein and, without limiting the generality of the foregoing and for the avoidance of doubt, in no event shall the Company be entitled to rely on any of the representations and warranties of ARYA set forth in this Subscription Agreement.
- e. All of the agreements, representations and warranties made by each party hereto in this Subscription Agreement shall survive the Closing.
- f. This Subscription Agreement may not be modified, waived or terminated (other than pursuant to the terms of Section 8 above) except by an instrument in writing, signed by each of the parties hereto, provided, however, that no modification or waiver by ARYA of the provisions of this Subscription Agreement shall be effective without the prior written consent of the Company (other than modifications or waivers that are solely ministerial in nature or otherwise immaterial and do not affect any economic or any other material term of this Subscription Agreement). No failure or delay of either party in exercising any right or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such right or power, or any course of conduct, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of the parties hereunder are cumulative and are not exclusive of any rights or remedies that they would otherwise have hereunder.
- g. This Subscription Agreement (including the schedule hereto) constitutes the entire agreement, and supersedes all other prior agreements, understandings, representations and warranties, both written and oral, among the parties, with respect to the subject matter hereof. Except as set forth in Section 8, Section 10(c), Section 10(d), Section 10(f), this Section 10(g) and the last sentence of Section 10(k) with respect to the persons specifically referenced therein, this Subscription Agreement shall not confer any rights or remedies upon any person other than the parties hereto, and their respective successor and assigns, and the parties hereto acknowledge that such persons so referenced are third party beneficiaries of this Subscription Agreement for the purposes of, and to the extent of, the rights granted to them, if any, pursuant to such provisions.
- h. Except as otherwise provided herein, this Subscription Agreement shall be binding upon, and inure to the benefit of the parties hereto and their heirs, executors, administrators, successors, legal representatives, and permitted assigns, and the agreements, representations, warranties, covenants and acknowledgments contained herein shall be deemed to be made by, and be binding upon, such heirs, executors, administrators, successors, legal representatives and permitted assigns.

i. If any provision of this Subscription Agreement shall be adjudicated by a court of competent jurisdiction to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions of this Subscription Agreement shall not in any way be affected or impaired thereby and shall continue in full force and effect.

j. This Subscription Agreement may be executed in one or more counterparts (including by facsimile or electronic mail or in .pdf) and by different parties in separate counterparts, with the same effect as if all parties hereto had signed the same document. All counterparts so executed and delivered shall be construed together and shall constitute one and the same agreement.

k. The parties hereto acknowledge and agree that irreparable damage would occur in the event that any of the provisions of this Subscription Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent breaches of this Subscription Agreement, without posting a bond or undertaking and without proof of damages, to enforce specifically the terms and provisions of this Subscription Agreement, this being in addition to any other remedy to which such party is entitled at law, in equity, in contract, in tort or otherwise. The parties hereto acknowledge and agree that the Company shall be entitled to seek to specifically enforce the Investor's obligations to fund the Subscription Amount and the provisions of the Subscription Agreement of which the Company is an express third party beneficiary, in each case, on the terms and subject to the conditions set forth herein.

l. Any notice or communication required or permitted hereunder to be given to the Investor shall be in writing and either delivered personally, emailed or sent by overnight mail via a reputable overnight carrier, or sent by certified or registered mail, postage prepaid, to such address(es) or email address(es) set forth on the signature page hereto, and shall be deemed to be given and received (i) when so delivered personally, (ii) when sent, with no mail undeliverable or other rejection notice, if sent by email, or (iii) three (3) business days after the date of mailing to the address below or to such other address or addresses as the Investor may hereafter designate by notice to ARYA.

m. THE PARTIES HERETO IRREVOCABLY SUBMIT TO THE EXCLUSIVE JURISDICTION OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK AND THE SUPREME COURT OF THE STATE OF NEW YORK SOLELY IN RESPECT OF THE INTERPRETATION AND ENFORCEMENT OF THE PROVISIONS OF THIS SUBSCRIPTION AGREEMENT AND THE DOCUMENTS REFERRED TO IN THIS SUBSCRIPTION AGREEMENT AND IN RESPECT OF THE TRANSACTIONS CONTEMPLATED HEREBY, AND HEREBY WAIVE, AND AGREE NOT TO ASSERT, AS A DEFENSE IN ANY ACTION, SUIT OR PROCEEDING FOR INTERPRETATION OR ENFORCEMENT HEREOF OR ANY SUCH DOCUMENT THAT IS NOT SUBJECT THERETO OR THAT SUCH ACTION, SUIT OR PROCEEDING MAY NOT BE BROUGHT OR IS NOT MAINTAINABLE IN SAID COURTS OR THAT VENUE THEREOF MAY NOT BE APPROPRIATE OR THAT THIS SUBSCRIPTION AGREEMENT OR ANY SUCH DOCUMENT MAY NOT BE ENFORCED IN OR BY SUCH COURTS, AND THE PARTIES HERETO IRREVOCABLY AGREE THAT ALL CLAIMS WITH RESPECT TO SUCH ACTION, SUIT OR PROCEEDING SHALL BE HEARD AND DETERMINED BY SUCH A NEW YORK STATE OR FEDERAL COURT. THE PARTIES HEREBY CONSENT TO AND GRANT ANY SUCH COURT JURISDICTION OVER THE PERSON OF SUCH PARTIES AND OVER THE SUBJECT MATTER OF SUCH DISPUTE AND AGREE THAT MAILING OF PROCESS OR OTHER PAPERS IN CONNECTION WITH SUCH ACTION, SUIT OR PROCEEDING IN THE MANNER PROVIDED IN THIS SECTION 10(m) OF THIS SUBSCRIPTION AGREEMENT OR IN SUCH OTHER MANNER AS MAY BE PERMITTED BY LAW SHALL BE VALID AND SUFFICIENT SERVICE THEREOF.

EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY WHICH MAY ARISE UNDER THIS SUBSCRIPTION AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES, AND THEREFORE EACH SUCH PARTY HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT SUCH PARTY MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS SUBSCRIPTION AGREEMENT OR THE TRANSACTIONS CONTEMPLATED BY THIS SUBSCRIPTION AGREEMENT. EACH PARTY CERTIFIES AND ACKNOWLEDGES THAT (I) NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY

OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER; (II) SUCH PARTY UNDERSTANDS AND HAS CONSIDERED THE IMPLICATIONS OF THE FOREGOING WAIVER; (III) SUCH PARTY MAKES THE FOREGOING WAIVER VOLUNTARILY AND (IV) SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS SUBSCRIPTION AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVER AND CERTIFICATIONS IN THIS SECTION 10(m).

11. Non-Reliance and Exculpation 12. . The Investor acknowledges that it is not relying upon, and has not relied upon, any statement, representation or warranty made by any person, firm or corporation (including, without limitation, the Placement Agents, any of their respective affiliates or any control persons, officers, directors, employees, partners, agents or representatives of any of the foregoing), other than the statements, representations and warranties of ARYA expressly contained in Section 5 of this Subscription Agreement, in making its investment or decision to invest in ARYA. The Investor acknowledges and agrees that none of (i) any other investor pursuant to this Subscription Agreement or any other subscription agreement related to the private placement of the Shares (including the investor's respective affiliates or any control persons, officers, directors, employees, partners, agents or representatives of any of the foregoing) or (ii) the Placement Agents, their respective affiliates or any control persons, officers, directors, employees, partners, agents or representatives of any of the foregoing, shall have any liability to the Investor, or to any other investor, pursuant to, arising out of or relating to this Subscription Agreement or any other subscription agreement related to the private placement of the Shares, the negotiation hereof or thereof or its subject matter, or the transactions contemplated hereby or thereby, including, without limitation, with respect to any action heretofore or hereafter taken or omitted to be taken by any of them in connection with the purchase of the Shares or with respect to any claim (whether in tort, contract or otherwise) for breach of this Subscription Agreement or in respect of any written or oral representations made or alleged to be made in connection herewith, as expressly provided herein, or for any actual or alleged inaccuracies, misstatements or omissions with respect to any information or materials of any kind furnished by ARYA, the Company, the Placement Agents or any Non-Party Affiliate concerning ARYA, the Company, the Placement Agents, any of their controlled affiliates, this Subscription Agreement or the transactions contemplated hereby. For purposes of this Subscription Agreement, "Non-Party Affiliates" means each former, current or future officer, director, employee, partner, member, manager, direct or indirect equityholder or affiliate of ARYA, the Company, any Placement Agent or any of ARYA's, the Company's or any Placement Agent's controlled affiliates or any family member of the foregoing.

12. Disclosure. ARYA shall, by 9:00 a.m., New York City time, on the first (1st) Business Day immediately following the date of this Subscription Agreement, issue one or more press releases or file with the SEC a Current Report on Form 8-K (collectively, the "Disclosure Document") disclosing all material terms of the transactions contemplated hereby and by the Other Subscription Agreements, the Transaction and any other material, nonpublic information that ARYA has provided to the Investor at any time prior to the filing of the Disclosure Document. Upon the issuance of the Disclosure Document, to the actual knowledge of ARYA, the Investor shall not be in possession of any material, non-public information received from ARYA or any of its officers, directors, or employees or agents, and the Investor shall no longer be subject to any confidentiality or similar obligations under any current agreement, whether written or oral with ARYA or any of its affiliates, relating to the transactions contemplated by this Subscription Agreement. Notwithstanding anything in this Subscription Agreement to the contrary, ARYA shall not (i) publicly disclose the name of the Investor or any of its affiliates or advisers, or include the name of the Investor or any of its affiliates or advisers in any press release without the prior written consent of the Investor, or (ii) publicly disclose the name of the Investor or any of its affiliates or advisers, or include the name of the Investor or any of its affiliates or advisers in any filing with the SEC or any regulatory agency or trading market, without the prior written consent of the Investor except as required by the federal securities law or pursuant to other routine proceedings of regulatory authorities, or to the extent such disclosure is required by law, at the request of the staff of the SEC or regulatory agency or under the regulations of the Stock Exchange, in which case ARYA will provide Investor with prior written notice (including by e-mail) of such disclosure under this clause (ii), or (iii) to the extent such announcements or other communications contain only information previously disclosed in a public statement, press release or other communication that was approved by the Investor in accordance with this Section 12.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the Investor has executed or caused this Subscription Agreement to be executed by its duly authorized representative as of the date set forth below.

Name of Investor:

State/Country of Formation or Domicile:

By: _____
Name: _____
Title: _____

Name in which Shares are to be registered (if different):

Date: _____, 2020

Investor's EIN:

Business Address-Street:

Mailing Address-Street (if different):

City, State, Zip:

City, State, Zip:

Attn: _____

Attn: _____

Telephone No.:

Telephone No.:

Facsimile No.:

Facsimile No.:

Number of Shares subscribed for:

Aggregate Subscription Amount: \$

Price Per Share: \$10.00

You must pay the Subscription Amount by wire transfer of United States dollars in immediately available funds to the account specified by ARYA in the Closing Notice. To the extent the offering is oversubscribed, the number of Shares received may be less than the number of Shares subscribed for.

IN WITNESS WHEREOF, ARYA has accepted this Subscription Agreement as of the date set forth below.

ARYA SCIENCES ACQUISITION CORP II

By: _____
Name: _____
Title: _____

Date: , 2020

SCHEDULE A

ELIGIBILITY REPRESENTATIONS OF THE INVESTOR

A. QUALIFIED INSTITUTIONAL BUYER STATUS

(Please check the applicable subparagraphs):

☐ We are a “qualified institutional buyer” (as defined in Rule 144A under the Securities Act (a “QIB”)).

B. INSTITUTIONAL ACCREDITED INVESTOR STATUS

(Please check the applicable subparagraphs):

1. ☐ We are an “accredited investor” (within the meaning of Rule 501(a) under the Securities Act or an entity in which all of the equity holders are accredited investors within the meaning of Rule 501(a) under the Securities Act), and have marked and initialed the appropriate box on the following page indicating the provision under which we qualify as an “accredited investor.”
2. ☐ We are not a natural person.

Rule 501(a), in relevant part, states that an “accredited investor” shall mean any person who comes within any of the below listed categories, or who the issuer reasonably believes comes within any of the below listed categories, at the time of the sale of the securities to that person. The Investor has indicated, by marking and initialing the appropriate box below, the provision(s) below which apply to the Investor and under which the Investor accordingly qualifies as an “accredited investor.”

☐ Any bank, registered broker or dealer, insurance company, registered investment company, business development company, or small business investment company;

☐ Any plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions for the benefit of its employees, if such plan has total assets in excess of \$5,000,000;

☐ Any employee benefit plan, within the meaning of the Employee Retirement Income Security Act of 1974, if a bank, insurance company, or registered investment adviser makes the investment decisions, or if the plan has total assets in excess of \$5,000,000;

☐ Any organization described in Section 501(c)(3) of the Internal Revenue Code, corporation, similar business trust, or partnership, not formed for the specific purpose of acquiring the securities offered, with total assets in excess of \$5,000,000;

☐ Any trust with assets in excess of \$5,000,000, not formed to acquire the securities offered, whose purchase is directed by a sophisticated person; or

☐ Any entity in which all of the equity owners are accredited investors meeting one or more of the above tests.

***This page should be completed by the Investor
and constitutes a part of the Subscription Agreement.***



**CEREVEL THERAPEUTICS HOLDINGS, INC.
2020 EQUITY INCENTIVE PLAN**

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Cerevel Therapeutics Holdings, Inc. 2020 Equity Incentive Plan (the “Plan”). The purpose of the Plan is to encourage and enable the officers, employees, non-employee directors and consultants of Cerevel Therapeutics Holdings, Inc. (the “Company”) and its Affiliates upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company’s welfare will assure a closer identification of their interests with those of the Company and its stockholders, thereby stimulating their efforts on the Company’s behalf and strengthening their desire to remain with the Company.

The following terms shall be defined as set forth below:

“Act” means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

“Administrator” means either the Board, or the Compensation Committee of the Board or a similar committee performing the functions of that committee and which is comprised of not less than two Non-Employee Directors who are independent.

“Affiliate” means, at the time of determination, any “parent” or “subsidiary” of the Company as such terms are defined in Rule 405 of the Act. The Board will have the authority to determine the time or times at which “parent” or “subsidiary” status is determined within the foregoing definition.

“Award” or “Awards,” except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Units, Restricted Stock Awards, Unrestricted Stock Awards, Cash-Based Awards, and Dividend Equivalent Rights.

“Award Certificate” means a written or electronic document setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Certificate is subject to the terms and conditions of the Plan.

“Board” means the Board of Directors of the Company.

“Cash-Based Award” means an Award entitling the recipient to receive a cash-denominated payment.

“Closing Date” means the date of the closing of the transactions contemplated by that certain Business Combination Agreement, dated as of July 29, 2020, by and among the Company and the other parties thereto.

“Code” means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

“Consultant” means a consultant or adviser who provides *bona fide* services to the Company or an Affiliate as an independent contractor and who qualifies as a consultant or advisor under Instruction A.1.(a)(1) of Form S-8 under the Act.

“Dividend Equivalent Right” means an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other award to which it relates) if such shares had been issued to and held by the grantee.

“Effective Date” means the date on which the Plan becomes effective as set forth in Section 20.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

“Fair Market Value” of the Stock on any given date means the fair market value of the Stock determined in good faith by the Administrator; provided, however, that if the Stock is listed on the National Association of Securities Dealers Automated Quotation System (“NASDAQ”), NASDAQ Global Market, The New York Stock Exchange or another national securities exchange or traded on any established market, the determination shall be made by reference to the closing price on such date. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price.

“Incentive Stock Option” means any Stock Option intended to qualify as an “incentive stock option” as defined in Section 422 of the Code.

“Non-Employee Director” means a member of the Board who is not also an employee of the Company or any Subsidiary.

“Non-Qualified Stock Option” means any Stock Option that is not an Incentive Stock Option.

“Option” or “Stock Option” means any option to purchase shares of Stock granted pursuant to Section 5.

“Prior Plans” means the Cerevel Therapeutics, Inc. Amended and Restated 2018 Equity Incentive Plan and the Cerevel Therapeutics, Inc. 2020 Equity Incentive Plan.

“Restricted Shares” means the shares of Stock underlying a Restricted Stock Award that remain subject to a risk of forfeiture or the Company’s right of repurchase.

“Restricted Stock Award” means an Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant.

“Restricted Stock Units” means a right to receive, in cash and/or shares of Stock, as determined by the Administrator, the Fair Market Value of a share of Stock, subject to such restrictions on transfer, vesting conditions and other restrictions or limitations as may be set forth in this Plan and the applicable Agreement.

“Sale Event” shall mean (i) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (ii) a merger, reorganization or consolidation pursuant to which the holders of the Company’s outstanding voting power and outstanding stock immediately prior to such transaction do not own a majority of the outstanding voting power and outstanding stock or other equity interests of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction, (iii) the sale of all of the Stock of the Company to an unrelated person, entity or group thereof acting in concert, or (iv) any other transaction in which, immediately upon completion of the transaction, an unrelated person, entity or group thereof acting in concert will own at least a majority of the outstanding voting power of the Company or any successor entity other than (A) as a result of the acquisition of securities directly from the Company and (B) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any entity controlled by the Company.

“Sale Price” means the value as determined by the Administrator of the consideration payable, or otherwise to be received by stockholders, per share of Stock pursuant to a Sale Event.

“Section 409A” means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

“Service Relationship” means any relationship as an employee, director or Consultant of the Company or any Affiliate (e.g., a Service Relationship shall be deemed to continue without interruption in the event an individual’s status changes from full-time employee to part-time employee or Consultant).

“Stock” means the Common Stock, par value \$ 0.0001 per share, of the Company, subject to adjustments pursuant to Section 3.

“Stock Appreciation Right” means an Award entitling the recipient to receive shares of Stock (or cash, to the extent explicitly provided for in the applicable Award Certificate) having a value equal to the excess of the Fair Market Value of the Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

“Subsidiary” means any corporation or other entity (other than the Company) in which the Company has at least a 50 percent interest, either directly or indirectly.

“Ten Percent Owner” means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation.

“Unrestricted Stock Award” means an Award of shares of Stock free of any restrictions.

SECTION 2. ADMINISTRATION OF PLAN; ADMINISTRATOR AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Administrator.

(b) Powers of Administrator. The Administrator shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority to:

(i) select the individuals to whom Awards may from time to time be granted;

(ii) determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Unrestricted Stock Awards, Cash-Based Awards, and Dividend Equivalent Rights, or any combination of the foregoing, granted to any one or more grantees;

(iii) determine the number of shares of Stock to be covered by any Award;

(iv) correct any defect, supply any omission or reconcile any inconsistency in the Plan, in any Award, or in any Award Certificate;

(v) determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the forms of Award Certificates;

(vi) accelerate at any time the exercisability or vesting of all or any portion of any Award or waive any forfeiture provision with respect to an Award;

(vii) subject to the provisions of Section 5(c) or Section 6(d), extend at any time the period in which Stock Options or Stock Appreciation Right, respectively, may be exercised; and

(viii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the

administration of the Plan.

All decisions and interpretations of the Administrator shall be binding on all persons, including the Company and Plan grantees.

(c) Delegation of Authority to Grant Awards. Subject to applicable law, the Administrator, in its discretion, may delegate to a committee consisting of one or more officers of the Company, including the Chief Executive Officer of the Company, all or part of the Administrator's authority and duties with respect to the granting of Awards to individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not members of the delegated committee. Any such delegation by the Administrator shall include a limitation as to the amount of Stock underlying Awards that may be granted during the period of the delegation and shall contain guidelines as to the determination of the exercise price and the vesting criteria. The Administrator may revoke or amend the terms of a delegation at any time but such action shall not invalidate any prior actions of the Administrator's delegate or delegates that were consistent with the terms of the Plan.

(d) Award Certificate. Awards under the Plan shall be evidenced by Award Certificates that set forth the terms, conditions and limitations for each Award which may include, without limitation, the term of an Award and the provisions applicable in the event employment or service terminates.

(e) Indemnification. Neither the Board nor the Administrator, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the administration of the Plan, and the members of the Board and the Administrator (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's articles or bylaws or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(f) Foreign Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and its Subsidiaries operate or have employees or other individuals eligible for Awards, the Administrator, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries shall be covered by the Plan; (ii) determine which individuals outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Administrator determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to this Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitations contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Administrator determines to be necessary or advisable to obtain approval or comply with any

local governmental regulatory exemptions or approvals. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate the Exchange Act or any other applicable United States securities law, the Code, or any other applicable United States governing statute or law.

SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS; SUBSTITUTION

(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 24,050,679 shares (the "Initial Limit"), subject to adjustment as provided in this Section 3, plus on January 1, 2021 and each January 1 thereafter, the number of shares of Stock reserved and available for issuance under the Plan shall be cumulatively increased by four percent (4%) of the number of shares of Stock issued and outstanding on the immediately preceding December 31 or such lesser amount as determined by the Board (the "Annual Increase"). Subject to such overall limitation, the maximum aggregate number of shares of Stock that may be issued in the form of Incentive Stock Options shall not exceed the Initial Limit cumulatively increased on January 1, 2021 and on each January 1 thereafter by the lesser of the Annual Increase for such year or 12,737,876 shares of Stock, subject in all cases to adjustment as provided in this Section 3. For purposes of this limitation, the shares of Stock underlying any awards under the Plan and under the Prior Plans that are forfeited, canceled, held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan and, to the extent permitted under Section 422 of the Code and the regulations promulgated thereunder, the shares of Stock that may be issued as Incentive Stock Options. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company. Awards that may be settled solely in cash shall not be counted against the share reserve, nor shall they reduce the shares of Stock authorized for grant to any grantee in any calendar year.

(b) Changes in Stock. Subject to Section 3(c) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, or, if, as a result of any merger or consolidation, sale of all or substantially all of the assets of the Company, the outstanding shares of Stock are converted into or exchanged for securities of the Company or any successor entity (or a parent or subsidiary thereof), the Administrator, in its sole discretion, shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, including the maximum number of shares that may be issued in the form of Incentive Stock Options, (ii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, (iii) the repurchase price, if any, per share subject to each outstanding Restricted Stock Award, and (iv) the exercise price for each share subject to any then outstanding Stock Options and Stock

Appreciation Rights under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of shares subject to Stock Options and Stock Appreciation Rights) as to which such Stock Options and Stock Appreciation Rights remain exercisable. The Administrator may also make equitable or proportionate adjustments in the number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration cash dividends paid other than in the ordinary course or any other extraordinary corporate event. The adjustment by the Administrator shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Administrator in its discretion may make a cash payment in lieu of fractional shares.

(c) Mergers and Other Transactions. In the case of and subject to the consummation of a Sale Event, the parties thereto may cause the assumption or continuation of Awards theretofore granted by the successor entity, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree. To the extent the parties to such Sale Event do not provide for the assumption, continuation or substitution of Awards, upon the effective time of the Sale Event, the Plan and all outstanding Awards granted hereunder shall terminate. In such case, except as may be otherwise provided in the relevant Award Certificate, all Options and Stock Appreciation Rights with time-based vesting conditions or restrictions that are not vested and/or exercisable immediately prior to the effective time of the Sale Event shall become fully vested and exercisable as of the effective time of the Sale Event, all other Awards with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of the Sale Event, and all Awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in connection with a Sale Event in the Administrator's discretion or to the extent specified in the relevant Award Certificate. In the event of such termination, the Administrator shall have the option (in its sole discretion) to effect either of the following alternatives, which may vary among individual holders and which may vary among Awards held by any individual holder: (i) make or provide for a payment, in cash or in kind, to the grantees holding Options and Stock Appreciation Rights, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the Sale Price multiplied by the number of shares of Stock subject to outstanding Options and Stock Appreciation Rights (to the extent then exercisable at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding Options and Stock Appreciation Rights (provided that, in the case of an Option or Stock Appreciation Right with an exercise price equal to or greater than the Sale Price, such Option or Stock Appreciation Right shall be cancelled for no consideration); or (ii) permit a grantee to exercise all or any portion of such grantee's outstanding Options and Stock Appreciation Rights (to the extent then exercisable), for a limited period of time on or before a date prior to the consummation of the Sale Event as specified by the Administrator, after which specified date all unexercised Awards and all rights of holders thereunder shall terminate. The Administrator shall also have the option (in its sole discretion) to make or provide for a payment, in cash or in kind, to the grantees holding Awards other than Options and Stock Appreciation Rights, in an amount equal to the Sale Price multiplied by the number of vested shares of Stock

under such Awards.

(d) Maximum Awards to Non-Employee Directors. The aggregate amount of compensation, including both Awards granted under this Plan and cash compensation, paid to any Non-Employee Director in a calendar year period shall not exceed \$750,000; provided, however, that such amount shall be \$1,000,000 for the calendar year in which the applicable Non-Employee Director is initially appointed to the Board. For the purpose of this limitation, the amount of any Award paid in a calendar year shall be its grant date fair value, as determined in accordance with ASC 718 or successor provision but excluding the impact of estimated forfeitures related to service-based vesting provisions.

SECTION 4. ELIGIBILITY

Grantees under the Plan will be such employees, Non-Employee Directors or Consultants of the Company and its Affiliates as are selected from time to time by the Administrator in its sole discretion; provided that Awards may not be granted to employees, Directors or Consultants who are providing services only to any “parent” of the Company, as such term is defined in Rule 405 of the Act, unless (i) the stock underlying the Awards is treated as “service recipient stock” under Section 409A or (ii) the Company has determined that such Awards are exempt from or otherwise comply with Section 409A.

SECTION 5. STOCK OPTIONS

(a) Award of Stock Options. The Administrator may grant Stock Options under the Plan. Any Stock Option granted under the Plan shall be in such form as the Administrator may from time to time approve.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a “subsidiary corporation” within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

Stock Options granted pursuant to this Section 5 shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Administrator shall deem desirable. If the Administrator so determines, Stock Options may be granted in lieu of cash compensation at the optionee’s election, subject to such terms and conditions as the Administrator may establish.

(b) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to this Section 5 shall be determined by the Administrator at the time of grant but shall not be less than 100 percent of the Fair Market Value on the date of grant. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the exercise price of such Incentive Stock Option shall be not less than 110 percent of the Fair Market Value on the grant date.

(c) Option Term. The term of each Stock Option shall be fixed by the Administrator, but no Stock Option shall be exercisable more than ten years after the date the Stock Option is granted. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the date of grant.

(d) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Administrator at or after the grant date. The Administrator may at any time accelerate the exercisability of all or any portion of any Stock Option. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.

(e) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written or electronic notice of exercise to the Company, specifying the number of shares to be purchased. Payment of the purchase price may be made by one or more of the following methods except to the extent otherwise provided in the Award Certificate:

(i) In cash, by certified or bank check or other instrument acceptable to the Administrator;

(ii) Through the delivery (or attestation to the ownership following such procedures as the Company may prescribe) of shares of Stock that are not then subject to restrictions under any Company plan, with such surrendered shares to be valued at Fair Market Value on the exercise date;

(iii) By the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Company shall prescribe as a condition of such payment procedure; or

(iv) To the extent permitted by the Administrator and set forth in an Award Certificate, with respect to Stock Options that are not Incentive Stock Options, by a “net exercise” arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. The transfer to the optionee on the records of the Company or of the transfer agent of the shares of Stock to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser acting in his stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Award Certificate or applicable provisions of laws (including the satisfaction of any withholding taxes that the Company is obligated to withhold with respect to the optionee). In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock

through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of attested shares. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the exercise of Stock Options, such as a system using an internet website or interactive voice response, then the paperless exercise of Stock Options may be permitted through the use of such an automated system.

(f) Annual Limit on Incentive Stock Options. To the extent required for “incentive stock option” treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed \$100,000. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

SECTION 6. STOCK APPRECIATION RIGHTS

(a) Award of Stock Appreciation Rights. The Administrator may grant Stock Appreciation Rights under the Plan. A Stock Appreciation Right is an Award entitling the recipient to receive shares of Stock (or cash, to the extent explicitly provided for in the applicable Award Certificate) having a value equal to the excess of the Fair Market Value of a share of Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

(b) Exercise Price of Stock Appreciation Rights. The exercise price of a Stock Appreciation Right shall not be less than 100 percent of the Fair Market Value of the Stock on the date of grant.

(c) Grant and Exercise of Stock Appreciation Rights. Stock Appreciation Rights may be granted by the Administrator independently of any Stock Option granted pursuant to Section 5 of the Plan.

(d) Terms and Conditions of Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions as shall be determined on the date of grant by the Administrator. The term of a Stock Appreciation Right may not exceed ten years. The terms and conditions of each such Award shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees.

SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Administrator may grant Restricted Stock Awards under the Plan. A Restricted Stock Award is any Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant. Conditions may be based on continuing employment (or other Service Relationship) and/or

achievement of pre-established performance goals and objectives.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee shall have the rights of a stockholder with respect to the voting of the Restricted Shares and receipt of dividends; provided that any dividends paid by the Company shall accrue and shall not be paid to the grantee until the lapse of restrictions on such Restricted Shares, and such dividends shall expire or be forfeited or annulled under the same conditions as the Restricted Shares. Unless the Administrator shall otherwise determine, (i) uncertificated Restricted Shares shall be accompanied by a notation on the records of the Company or the transfer agent to the effect that they are subject to forfeiture until such Restricted Shares are vested as provided in Section 7(d) below, and (ii) certificated Restricted Shares shall remain in the possession of the Company until such Restricted Shares are vested as provided in Section 7(d) below, and the grantee shall be required, as a condition of the grant, to deliver to the Company such instruments of transfer as the Administrator may prescribe.

(c) Restrictions. Restricted Shares may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award Certificate. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 16 below, in writing after the Award is issued, if a grantee's employment (or other Service Relationship) with the Company and its Subsidiaries terminates for any reason, any Restricted Shares that have not vested at the time of termination shall automatically and without any requirement of notice to such grantee from or other action by or on behalf of, the Company be deemed to have been reacquired by the Company at its original purchase price (if any) from such grantee or such grantee's legal representative simultaneously with such termination of employment (or other Service Relationship), and thereafter shall cease to represent any ownership of the Company by the grantee or rights of the grantee as a stockholder. Following such deemed reacquisition of Restricted Shares that are represented by physical certificates, a grantee shall surrender such certificates to the Company upon request without consideration.

(d) Vesting of Restricted Shares. The Administrator at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the non-transferability of the Restricted Shares and the Company's right of repurchase or forfeiture shall lapse. Subsequent to such date or dates and/or the attainment of such pre-established performance goals, objectives and other conditions, the shares on which all restrictions have lapsed shall no longer be Restricted Shares and shall be deemed "vested."

SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Administrator may grant Restricted Stock Units under the Plan. The vesting conditions or other restrictions associated with the Restricted Stock Unit may be based on continuing employment (or other Service Relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of

each such Award shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees. Except in the case of Restricted Stock Units with a deferred settlement date that complies with Section 409A, at the end of the vesting period, the Restricted Stock Units, to the extent vested, shall be settled in the form of shares of Stock (or cash, to the extent explicitly provided for in the Award Certificate). Restricted Stock Units with deferred settlement dates may be subject to Section 409A and shall contain such additional terms and conditions as the Administrator shall determine in its sole discretion in order to comply with the requirements of Section 409A.

(b) Election to Receive Restricted Stock Units in Lieu of Compensation. The Administrator may, in its sole discretion, permit a grantee to elect to receive a portion of future cash compensation otherwise due to such grantee in the form of an award of Restricted Stock Units. Any such election shall be made in writing and shall be delivered to the Company no later than the date specified by the Administrator and in accordance with Section 409A and such other rules and procedures established by the Administrator. Any such future cash compensation that the grantee elects to defer shall be converted to a fixed number of Restricted Stock Units based on the Fair Market Value of Stock on the date the compensation would otherwise have been paid to the grantee if such payment had not been deferred as provided herein. The Administrator shall have the sole right to determine whether and under what circumstances to permit such elections and to impose such limitations and other terms and conditions thereon as the Administrator deems appropriate. Any Restricted Stock Units that are elected to be received in lieu of cash compensation shall be fully vested, unless otherwise provided in the Award Certificate.

(c) Rights as a Stockholder. A grantee shall have the rights as a stockholder only as to shares of Stock acquired by the grantee upon settlement of Restricted Stock Units; provided, however, that the grantee may be credited with Dividend Equivalent Rights with respect to the stock units underlying his Restricted Stock Units, subject to the provisions of Section 11 and such terms and conditions as the Administrator may determine.

(d) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 16 below, in writing after the Award is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's termination of employment (or cessation of Service Relationship) with the Company and its Subsidiaries for any reason.

SECTION 9. UNRESTRICTED STOCK AWARDS

Grant or Sale of Unrestricted Stock. The Administrator may grant (or sell at par value or such higher purchase price determined by the Administrator) an Unrestricted Stock Award under the Plan. An Unrestricted Stock Award is an Award pursuant to which the grantee may receive shares of Stock free of any restrictions under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation

due to such grantee.

SECTION 10. CASH-BASED AWARDS

Grant of Cash-Based Awards. The Administrator may grant Cash-Based Awards under the Plan. A Cash-Based Award is an Award that entitles the grantee to a payment in cash upon the attainment of specified performance goals. The Administrator shall determine the maximum duration of the Cash-Based Award, the amount of cash to which the Cash-Based Award pertains, the conditions upon which the Cash-Based Award shall become vested or payable, and such other provisions as the Administrator shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula or payment ranges as determined by the Administrator. Payment, if any, with respect to a Cash-Based Award shall be made in accordance with the terms of the Award and may be made in cash.

SECTION 11. DIVIDEND EQUIVALENT RIGHTS

(a) Dividend Equivalent Rights. The Administrator may grant Dividend Equivalent Rights under the Plan. A Dividend Equivalent Right is an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other Award to which it relates) if such shares had been issued to the grantee. A Dividend Equivalent Right may be granted hereunder to any grantee as a component of an award of Restricted Stock Units or as a freestanding award. In no event shall any Dividend Equivalent Right be granted to an optionee as a component of a Stock Option. The terms and conditions of Dividend Equivalent Rights shall be specified in the Award Certificate. Dividend equivalents credited to the holder of a Dividend Equivalent Right may be paid currently or may be deemed to be reinvested in additional shares of Stock, which may thereafter accrue additional equivalents. Any such reinvestment shall be at Fair Market Value on the date of reinvestment or such other price as may then apply under a dividend reinvestment plan sponsored by the Company, if any. Dividend Equivalent Rights may be settled in cash or shares of Stock or a combination thereof, in a single installment or installments. A Dividend Equivalent Right granted as a component of an Award of Restricted Stock Units shall provide that such Dividend Equivalent Right shall be settled only upon settlement or payment of, or lapse of restrictions on, such other Award, and that such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other Award.

(b) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 16 below, in writing after the Award is issued, a grantee's rights in all Dividend Equivalent Rights shall automatically terminate upon the grantee's termination of employment (or cessation of Service Relationship) with the Company and its Subsidiaries for any reason.

SECTION 12. TRANSFERABILITY OF AWARDS

(a) Transferability. Except as provided in Section 12(b) below, during a grantee's lifetime, his or her Awards shall be exercisable only by the grantee, or by the grantee's legal

representative or guardian in the event of the grantee's incapacity. No Awards shall be sold, assigned, transferred or otherwise encumbered or disposed of by a grantee other than by will or by the laws of descent and distribution or pursuant to a domestic relations order. No Awards shall be subject, in whole or in part, to attachment, execution, or levy of any kind, and any purported transfer in violation hereof shall be null and void.

(b) Administrator Action. Notwithstanding Section 12(a), the Administrator, in its discretion, may provide either in the Award Certificate regarding a given Award or by subsequent written approval that the grantee (who is an employee or director) may transfer his or her Non- Qualified Stock Options to his or her immediate family members, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award. In no event may an Award be transferred by a grantee for value.

(c) Family Member. For purposes of Section 12(b), "family member" shall mean a grantee's child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the grantee's household (other than a tenant of the grantee), a trust in which these persons (or the grantee) have more than 50 percent of the beneficial interest, a foundation in which these persons (or the grantee) control the management of assets, and any other entity in which these persons (or the grantee) own more than 50 percent of the voting interests.

(d) Designation of Beneficiary. To the extent permitted by the Company, each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Administrator and shall not be effective until received by the Administrator. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate.

SECTION 13. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the grantee for Federal or non-U.S. income tax purposes, pay to the Company, or make arrangements satisfactory to the Administrator regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee. The Company's obligation to deliver evidence of book entry (or stock certificates) to any grantee is subject to and conditioned on tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. The Administrator may require the Company's tax withholding obligation to be satisfied, in whole or in part, by the Company withholding from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due; provided, however, that the amount withheld does not exceed the maximum statutory tax rate or such lesser amount as is necessary to avoid liability accounting treatment. For purposes of share withholding, the Fair Market Value of withheld shares shall be determined in the same manner as the value of Stock includible in income of the grantees. The Administrator may also require the Company's tax withholding obligation to be satisfied, in whole or in part, by an arrangement whereby a certain number of shares of Stock issued pursuant to any Award are immediately sold and proceeds from such sale are remitted to the Company in an amount that would satisfy the withholding amount due.

SECTION 14. SECTION 409A AWARDS

Awards are intended to be exempt from Section 409A to the greatest extent possible and to otherwise comply with Section 409A. The Plan and all Awards shall be interpreted in accordance with such intent. To the extent that any Award is determined to constitute “nonqualified deferred compensation” within the meaning of Section 409A (a “409A Award”), the Award shall be subject to such additional rules and requirements as specified by the Administrator from time to time in order to comply with Section 409A. In this regard, if any amount under a 409A Award is payable upon a “separation from service” (within the meaning of Section 409A) to a grantee who is then considered a “specified employee” (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee’s separation from service, or (ii) the grantee’s death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. Further, the settlement of any 409A Award may not be accelerated except to the extent permitted by Section 409A.

SECTION 15. TERMINATION OF SERVICE RELATIONSHIP, TRANSFER, LEAVE OF ABSENCE, ETC.

(a) Termination of Service Relationship. If the grantee’s Service Relationship is with an Affiliate and such Affiliate ceases to be an Affiliate, the grantee shall be deemed to have terminated his or her Service Relationship for purposes of the Plan.

(b) For purposes of the Plan, the following events shall not be deemed a termination of a Service Relationship:

(i) a transfer to the employment of the Company from an Affiliate or from the Company to an Affiliate, or from one Affiliate to another;

(ii) an approved leave of absence for military service or sickness, or for any other purpose approved by the Company, if the employee’s right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise so provides in writing;

(iii) an employee becoming a Consultant or a Non-Employee Director upon the termination of such employee’s employment, unless otherwise determined by the Administrator, in its sole discretion; or

(iv) a Consultant or a Non-Employee Director becoming an employee. SECTION

SECTION 16. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Administrator may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law

or for any other lawful purpose, but no such action shall materially and adversely affect rights under any outstanding Award without the holder's consent. The Administrator is specifically authorized to exercise its discretion to reduce the exercise price of outstanding Stock Options or Stock Appreciation Rights or effect the repricing of such Awards through cancellation and re-grants. To the extent required under the rules of any securities exchange or market system on which the Stock is listed, to the extent determined by the Administrator to be required by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code, Plan amendments shall be subject to approval by Company stockholders. Nothing in this Section 16 shall limit the Administrator's authority to take any action permitted pursuant to Section 3(b) or 3(c).

SECTION 17. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Administrator shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Administrator may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

SECTION 18. GENERAL PROVISIONS

(a) No Distribution. The Administrator may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares without a view to distribution thereof.

(b) Issuance of Stock. To the extent certificated, stock certificates to grantees under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a Stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records). Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any evidence of book entry or certificates evidencing shares of Stock pursuant to the exercise or settlement of any Award, unless and until the Administrator has determined, with advice of counsel (to the extent the Administrator deems such advice necessary or advisable), that the issuance and delivery is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any exchange on which the shares of Stock are listed, quoted or traded. Any Stock issued pursuant to the Plan shall be subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with federal, state or foreign jurisdiction,

securities or other laws, rules and quotation system on which the Stock is listed, quoted or traded. The Administrator may place legends on any Stock certificate or notations on any book entry to reference restrictions applicable to the Stock. In addition to the terms and conditions provided herein, the Administrator may require that an individual make such reasonable covenants, agreements, and representations as the Administrator, in its discretion, deems necessary or advisable in order to comply with any such laws, regulations, or requirements. The Administrator shall have the right to require any individual to comply with any timing or other restrictions with respect to the settlement or exercise of any Award, including a window-period limitation, as may be imposed in the discretion of the Administrator.

(c) Stockholder Rights. Until Stock is deemed delivered in accordance with Section 18(b), no right to vote or receive dividends or any other rights of a stockholder will exist with respect to shares of Stock to be issued in connection with an Award, notwithstanding the exercise of a Stock Option or any other action by the grantee with respect to an Award.

(d) Other Compensation Arrangements; No Employment Rights. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any employee any right to continued employment with the Company or any Subsidiary.

(e) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policies and procedures, as in effect from time to time.

(f) Clawback Policy. Awards under the Plan shall be subject to the Company's clawback policy, as in effect from time to time.

SECTION 19. STATUS UNDER ERISA

The Plan shall not constitute an "employee benefit plan" for purposes of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended.

SECTION 20. EFFECTIVE DATE OF PLAN

This Plan shall become effective upon the date immediately preceding the Closing Date subject to prior stockholder approval in accordance with applicable state law, the Company's bylaws and articles of incorporation, and applicable stock exchange rules. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the Effective Date and no grants of Incentive Stock Options may be made hereunder after the tenth anniversary of the date the Plan is approved by the Board.

SECTION 21. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to

conflict of law principles.

DATE APPROVED BY BOARD OF DIRECTORS: July 28, 2020

DATE APPROVED BY STOCKHOLDERS: October 26, 2020

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-251881) pertaining to the 2020 Equity Incentive Plan and Amended and Restated 2020 Employee Stock Purchase Plan of Cerevel Therapeutics Holdings, Inc. of our report dated March 24, 2021, with respect to the consolidated financial statements of Cerevel Therapeutics Holdings, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2020.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 24, 2021

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, N. Anthony Coles, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cerevel Therapeutics Holdings, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 24, 2021

By: /s/ N. Anthony Coles
N. Anthony Coles
President and Chief Executive Officer
(Principal Executive Officer)

1. I have reviewed this Annual Report on Form 10-K of Cerevel Therapeutics Holdings, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Kathy Yi
Kathy Yi
Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Cerevel Therapeutics Holdings, Inc. (the “Company”) for the year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 24, 2021

By: _____ /s/ N. Anthony Coles
N. Anthony Coles
President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ Kathy Yi
Kathy Yi
Chief Financial Officer
(Principal Financial Officer)