cerevel

Transforming the Possible in Neuroscience

Topline Data for Phase 1b Trial of CVL-231 in Schizophrenia

June 2021

Forward-Looking Statements

This presentation contains forward-looking statements that are based on management's beliefs and assumptions and on information currently available to management. In some cases, you can identify forward-looking statements by the following words: "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. These statements involve risks, uncertainties and other factors that may cause actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this presentation, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain.

Forward-looking statements in this presentation include, but are not limited to: statements about the potential attributes and benefits of our product candidates, including with respect to receptor subtype selectivity, activity, side effect and tolerability profile and relevant indications; the format and timing of our product development activities and clinical trials, including the design of clinical trials and the timing of initiation, completion and data readouts for clinical trials; statements about the advancement of CVL-231 into a Phase 2 program in schizophrenia and plans to explore additional related; the timing and outcome of IND submissions and other regulatory interactions; the ability to compete with other companies currently marketing or engaged in the development of treatments for relevant indications; the size and growth potential of the markets for product candidates and ability to serve those markets; the rate and degree of market acceptance of product candidates, if approved; the potential effects of the business combination; the amount and timing of payments we may receive pursuant to the tavapadon financing transaction; the sufficiency of our financial resources, including to fund the tavapadon Phase 3 development program through NDA submission and to allocate capital to earlier stage assets; and our cash runway.

We cannot assure you that the forward-looking statements in this presentation will prove to be accurate. Furthermore, if the forward-looking statements prove to be inaccurate, the inaccuracy may be material. Actual performance and results may differ materially from those projected or suggested in the forward-looking statements due to various risks and uncertainties, including, among others: that we may not realize the expected benefits of the financing transaction; that clinical trial results may not be favorable; uncertainties inherent in the product development process (including with respect to the timing of results and whether such results will be predictive of future results); the impact of COVID-19 on the timing, progress and results of ongoing or planned clinical trials; other impacts of COVID-19, including operational disruptions or delays or to our ability to raise additional capital; whether and when, if at all, our product candidates will receive approval from the FDA or other regulatory authorities, and for which, if any, indications; competition from other biotechnology companies; uncertainties regarding intellectual property protection; and other risks identified in our SEC filings, including those under the heading "Risk Factors" in our Quarterly Report on Form 10-Q filed with the SEC on May 17, 2021 and our subsequent SEC filings.

In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. The forward-looking statements in this presentation represent our views as of the date of this presentation. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation.

Agenda

Introduction		**Matthew Calistri** *Vice President, Investor Relations*
Overview		**Tony Coles, M.D.** *Chairperson & Chief Executive Officer*
CVL-231 Background and MOA		**John Renger, Ph.D.** *Chief Scientific Officer*
Trial Design & Results		**Raymond Sanchez, M.D.** *Chief Medical Officer*
Q&A	*All*	

Summary of Topline Results

- **Both doses of CVL-231 demonstrated clinically meaningful improvements in PANSS Total Score:**
  - 30 mg QD: -19.5 pts at week 6
  - 20 mg BID: -17.9 pts at week 6
- **Statistically significant difference in PANSS Total Score versus placebo***:
  - 30 mg QD: -12.7 pts (p=0.023) at week 6
  - 20 mg BID: -11.1 pts (p=0.047) at week 6
- **Clinically meaningful improvements in both PANSS Positive and PANSS Negative subscales**
- **Generally well-tolerated:**
  - Discontinuation rates similar between treatment and placebo (22% for each arm including placebo)
  - Not associated with extrapyramidal side effects or weight gain
  - Gastrointestinal (GI) side effects were infrequent and were similar between treatment and placebo
  - Serious adverse events included COVID-19, accidental overdose, and exacerbation of schizophrenia (one instance of each)
- **Data support advancing CVL-231 into Phase 2 program in schizophrenia and evaluating the potential for this mechanism in additional indications, including dementia-related psychosis**

*Trial originally designed to be 59% powered to detect 7 point difference in PANSS total score vs. placebo

Cerevel's M4 PAM is a Potential Next Generation Antipsychotic

M4 PAM (CVL-231)
Potential New Standard of Care

Opportunity for Innovation in Schizophrenia
Current Standard of Care Uses Same
Mechanism of Action (MOA) as Therapies from the 1950s

Potential First-in-Class Therapy with Novel MOA

- M4 Selective
- Targeted Muscarinic Activity
- Improved Tolerability

Large Market

- **~20M** Patients Worldwide
- **>$9B** Revenues in 2018
- **~3.5%** Growth per year

Significant Need for New Treatment Option

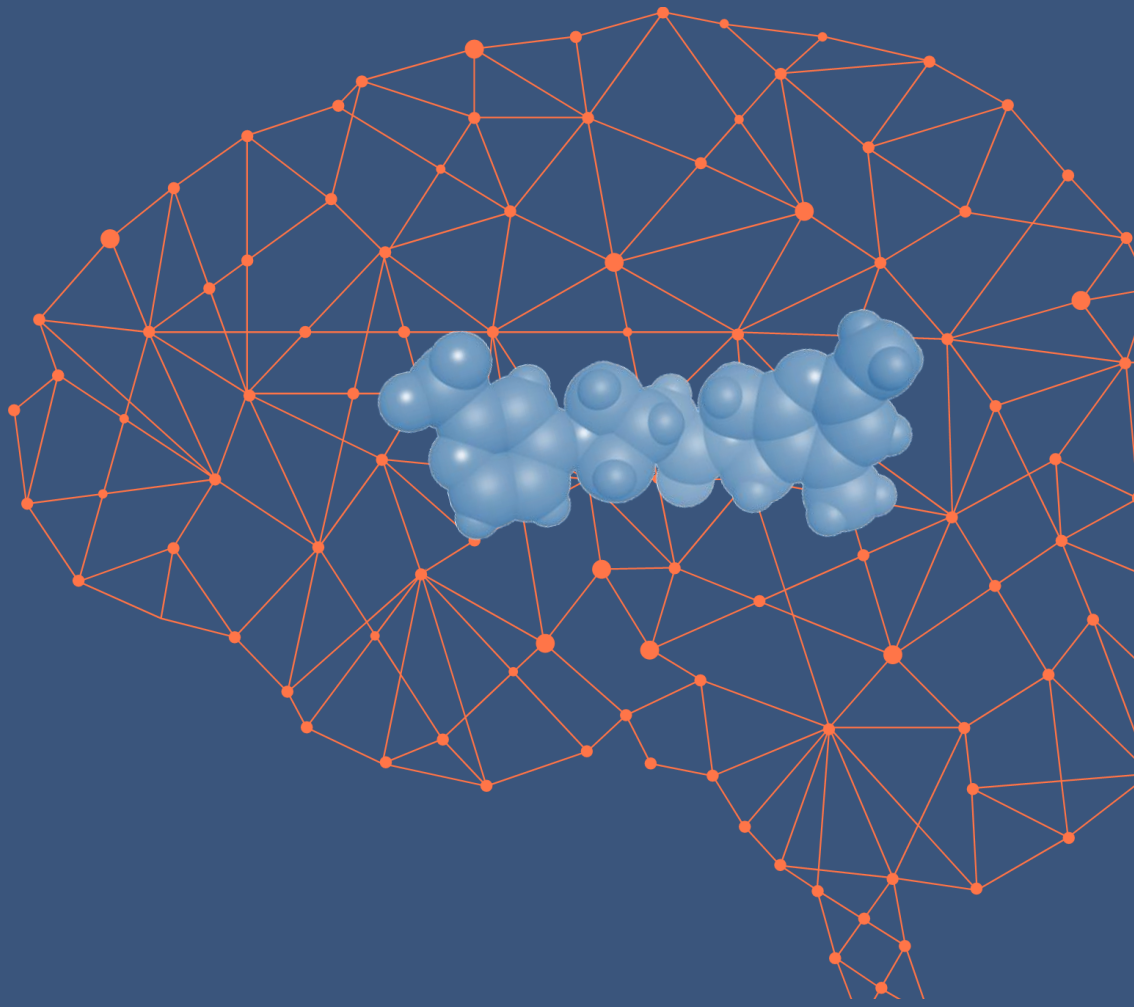
- Side Effect and Tolerability Issues
  - *Lead to* → Limited Compliance (60%)
    - → High Relapse Rates (77% at 1 year; 90% at 2 years)
      - *Lead to* → Progression and worsening of disease
        - *Lead to* → High Discontinuation (74% Within 18 months)
          - *Lead to* → Side Effect and Tolerability Issues

Debilitating side effects of atypicals often lead to discontinuation and relapse, driving a vicious cycle of disease progression

Source: World Health Organization, DRG Market Research, Global Data

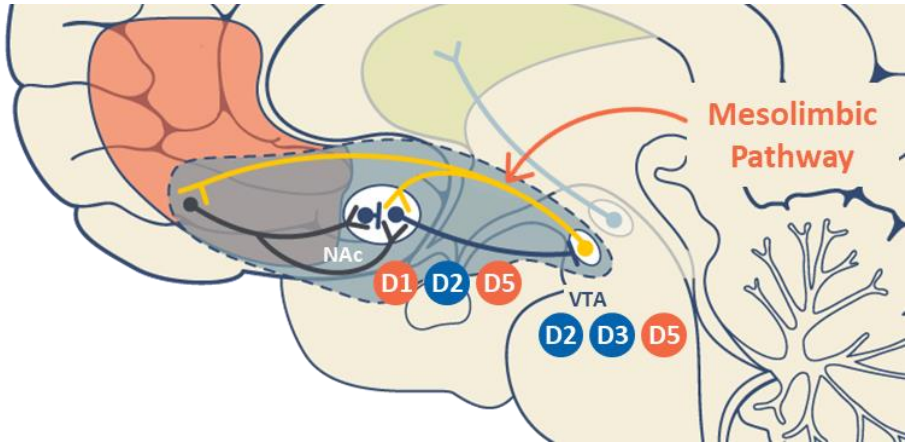
Overview & Summary of CVL-231

CVL-231 is designed to be a novel once-daily treatment that selectively targets the M4 muscarinic receptor with the potential to provide antipsychotic activity while minimizing side effects



M4 Receptor Activation Reduces Dopamine in the Striatum

Schizophrenia symptoms driven by ***overactivity of the dopaminergic*** mesolimbic pathway



Cholinergic Neuron

M4 Auto-Receptor

CVL-231 (PAM)

CVL-231 enhances M4 auto-receptor activation in the presence of Ach

Dopaminergic tone is reduced ***without*** direct antagonistic activity on post-synaptic dopamine receptors

M4 auto-receptor activation prevents additional Ach release

Acetylcholine (Ach)

Nicotinic Receptors

Dopamine

Nucleus Accumbens

Dopamine Neuron

Originates from Ventral Tegmental Area (VTA)

In the absence of Ach, dopamine output decreases, which ***dampens hyperdopaminergic activity*** in striatum

Potential for Decreased Psychosis

Cerevel's Selective M4 Modulation: A Compelling and Differentiated Approach to Drive Antipsychosis

M4 Selectively Impacts Brain Functions

Other Muscarinic Receptors	Potential Effect	M4 Muscarinic Receptor
-	Antipsychosis	✓✓
✓✓	Cognition	✓
✓✓	GI Side Effects	-
✓	Cardiovascular	✓

Receptor Subtype Selectivity Offers Potential Improvement

Xanomeline (M1/M4) data from Schizophrenia and Alzheimer's patients show targeting muscarinic receptor impacts brain function

But development limited by GI and CV side effects

Karuna's KarXT creatively addresses this by adding trospium to Xanomeline to offset side effects

Non-selective approach

M4 Knock-out mouse data suggests M4 receptors drive the antipsychotic activity of Xanomeline

M1 receptors believed to contribute to worrisome side effects

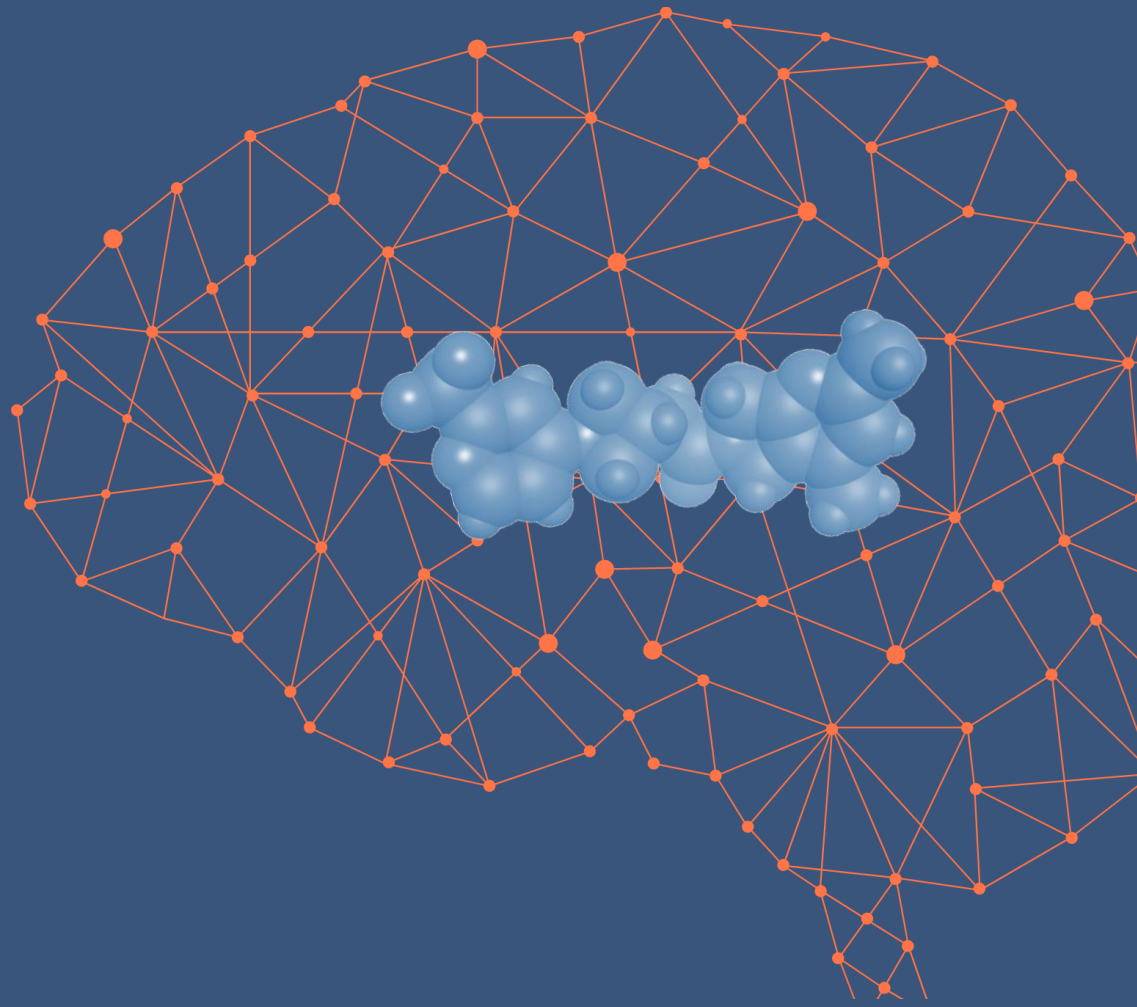
CVL-231:
Selective Potentially Once-daily M4 PAM

>600x
more selective for M4 over M1, 3 and 5

~360x
more selective than for M2

Source: 1. Shekhar et al. Am J Psychiatry, Vol 165, Aug 2008. N=20. 2 active and 3 placebo-arm patients discontinued the study, none due to adverse events.
2. Bodick et al. Arch Neurol, Vol 54, Apr 1997. N = 343. 52% of patients in high-dose arm discontinued treatment due to adverse events.

Trial Design & Results



CVL-231 Phase 1b Trial Design

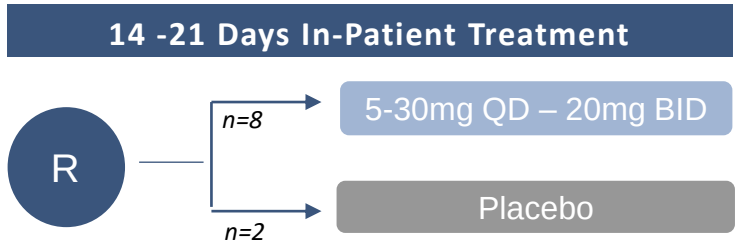
Part A: Safety Assessment

Multiple Ascending Dose

Up to 5 Cohorts (n=10 each)

Primary Objective
- Safety & tolerability

Secondary Objective
- PK

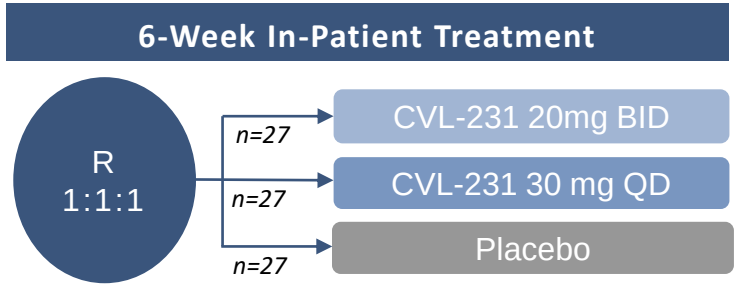


Target Patient Population

- Male and female subjects, ages 18 to 50 years
- CGI-S ≤ 4 (normal to moderately ill) at screening and Day-1
- PANSS total score of ≤ 80 at the time of screening and Day-1

Part B: Pharmacodynamics

Exploratory PD Assessment
- Positive and Negative Syndrome Scale (PANSS)*
  - PANSS Positive Score
  - PANSS Negative Score
- Clinical Global Impression – Severity Scale (CGI-S)*
- Brief Assessment of Cognition in Schizophrenia (BACS) symbol coding test*



Target Patient Population

- Male and female subjects, ages 18 to 55 years
- PANSS total score of ≥80 at screening and Day -1
- CGI-S ≥4 (moderately to severely ill) at screening and Day -1
- History of relapse and/or exacerbation of symptoms when not receiving antipsychotic treatment, excluding the current episode
- Experiencing an acute exacerbation or relapse of symptoms, with onset less than 2 months prior to screening
- Population was enriched for key positive symptoms

* Trial not designed to demonstrate statistical significance

Phase 1b Part B: Demographics & Baseline Characteristics

	PBO N= 27	CVL-231 30 mg QD N= 27	CVL-231 20 mg BID N= 27	All CVL-231 N= 54	Total N= 81
Demographics					
Age (years) at Screening: Mean (SD)	41 (9.7)	41 (8.1)	38 (9.8)	40 (9.0)	40 (9.2)
% Male: N (%)	19 (70%)	23 (85%)	21 (78%)	44 (81%)	63 (78%)
Race: N (%)					
Black or African American	17 (63%)	20 (74%)	19 (70%)	39 (72%)	56 (69%)
White	9 (33%)	7 (26%)	7 (26%)	14 (26%)	23 (28%)
Other	1 (4%)	0	1 (4%)	1 (2%)	2 (2%)
Weight (kg) Prior to Dosing: Mean (SD)	90.0 (16.0)	85.4 (13.3)	85.4 (15.4)	85.4 (14.3)	86.9 (14.9)
Disease Characteristics at Baseline: Mean (SD)					
PANSS Total Score	93 (8.8)	93 (7.3)	97 (7.9)	95 (7.7)	95 (8.1)
PANSS Positive Score	24 (2.7)	25 (3.0)	26 (2.6)	26 (2.8)	25 (2.8)
PANSS Negative Score	23 (3.3)	22 (3.7)	24 (3.8)	23 (3.8)	23 (3.6)
CGI-S Score	5 (0.6)	5 (0.5)	5 (0.7)	5 (0.6)	5 (0.6)

Key Pharmacodynamic Assessments

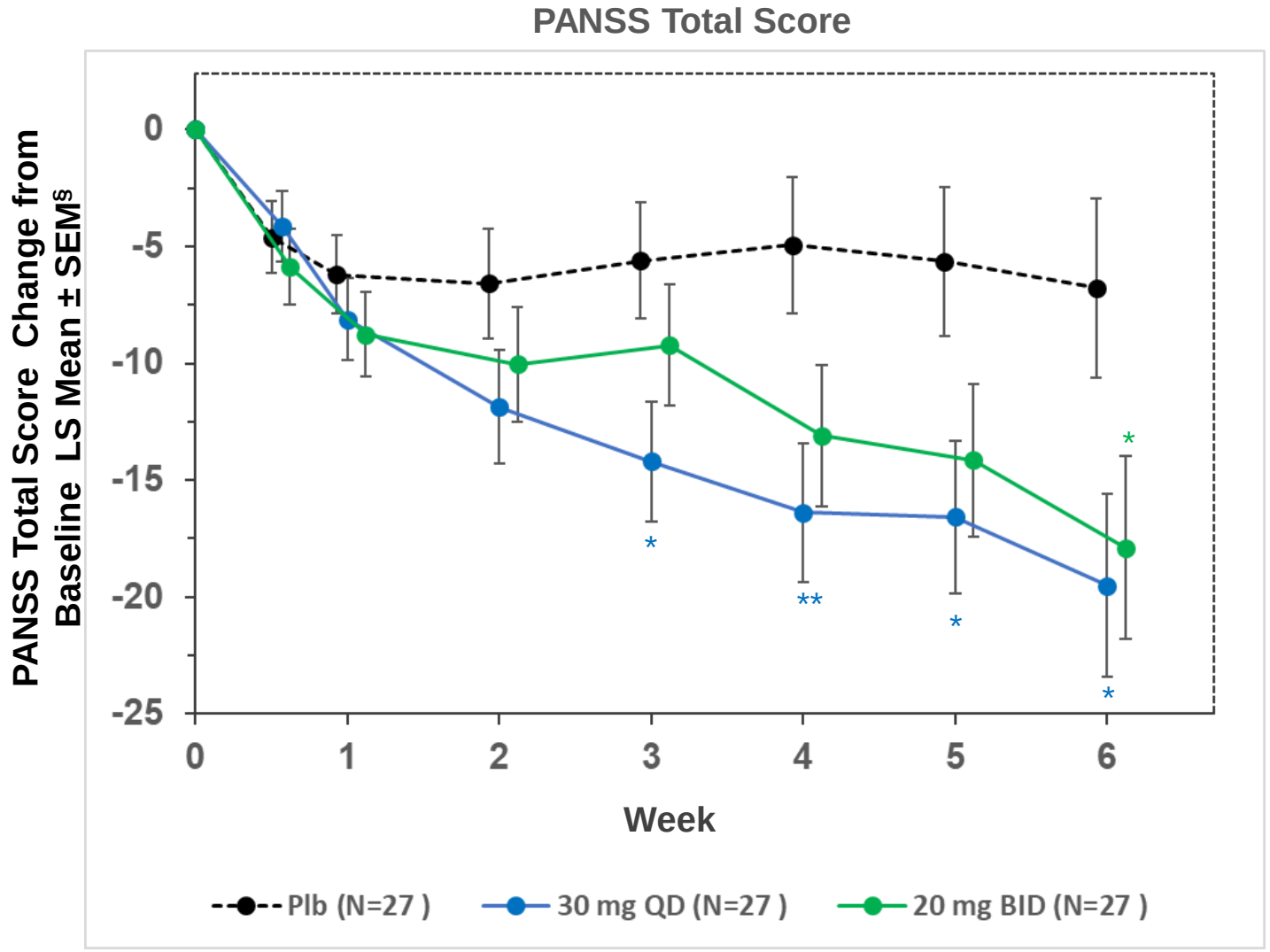
Pharmacodynamic Results Summary*

Week 6 (Day 42)	Placebo N=27	CVL-231 30 mg QD N= 27	CVL-231 20 mg BID N= 27	Combined CVL-231 N=54
PANSS Total Score				
LS Mean Change from Baseline	-6.8	-19.5	-17.9	-18.7
Difference vs Placebo (p-value)†		-12.7†	-11.1†	-11.9†
		p = 0.023	p = 0.047	p = 0.014
PANSS Positive Score				
LS Mean Change from Baseline	-2.5	-6.8	-4.9	-5.8
Difference vs Placebo (p-value)		-4.3	-2.4	-3.3
		p = 0.016	p = 0.166	p = 0.028
PANSS Negative Score at Baseline				
LS Mean Change from Baseline	0.1	-3.0	-3.6	-3.3
Difference vs Placebo (p-value)		-3.1	-3.7	-3.4
		p = 0.009	p = 0.002	p = 0.001

*Trial originally designed to be 59% powered to detect 7 point difference in PANSS total score vs. placebo

†Corresponds to Cohen's D effect sizes at Week 6 of -0.68 for CVL-231 30 mg QD, -0.59 for CVL-231 20 mg BID, and -0.64 for the two doses combined

Key Pharmacodynamic Endpoint – PANSS Total Score

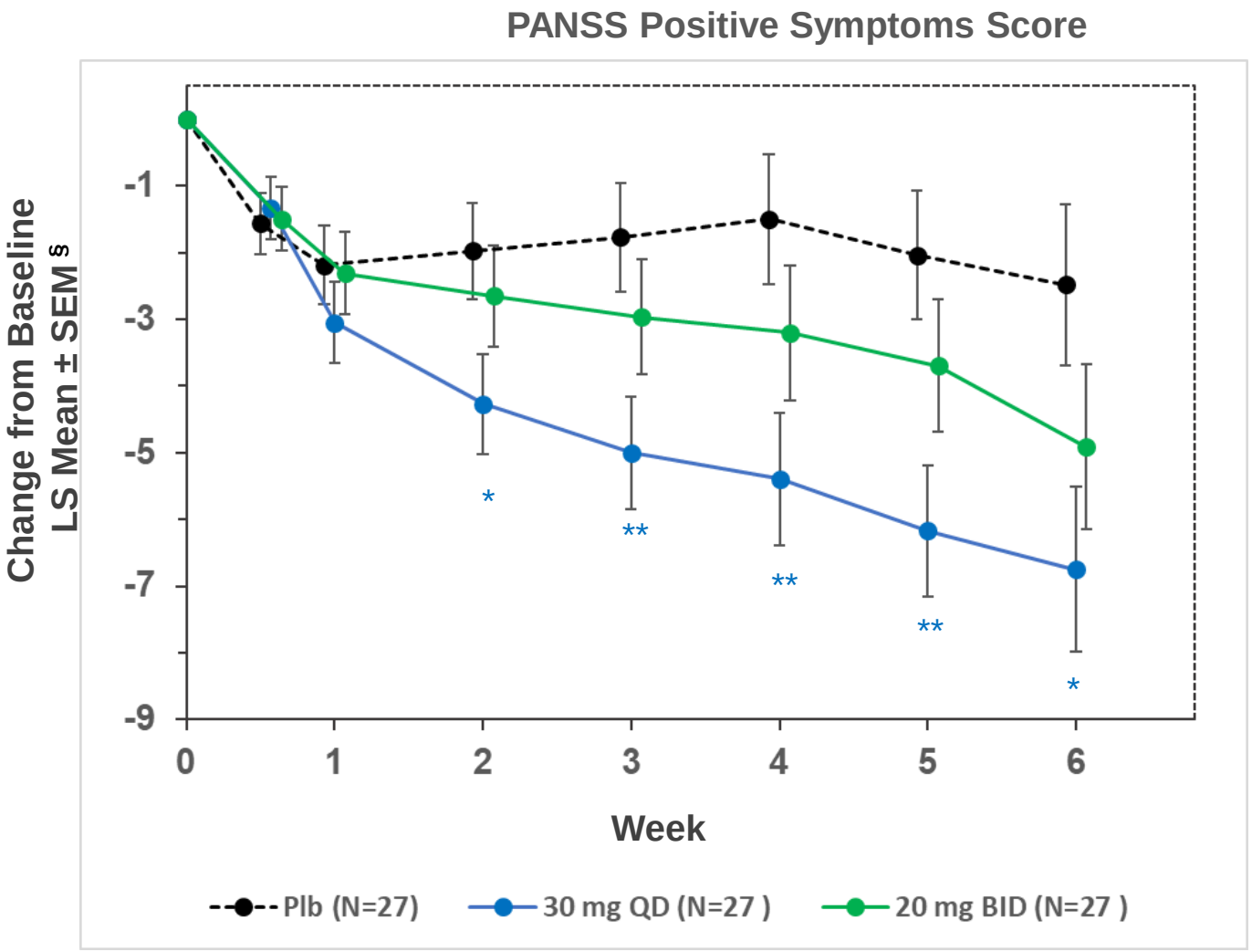


- 30 mg QD: 12.7 Point improvement versus placebo at Week 6 (19.5 of 30 mg QD vs 6.8 placebo) with P=0.023
- 20 mg BID: 11.1 Point improvement versus placebo at Week 6 (17.9 of 20 mg BID vs 6.8 placebo) with P=0.047
- Combined CVL 231: 11.9 Point improvement versus placebo at Week 6 (18.7 of CVL231 vs 6.8 placebo) with P=0.014

***** **P<0.05 vs Placebo** ****** **P<0.01 vs Placebo**

§ Derived from a mixed model for repeated measures (MMRM) with treatment group, visit, treatment group-by-visit interaction as fixed effect, baseline value as a covariate and the measurements within subject as repeated measures. An unstructured covariance matrix was used.

PANSS Positive Symptoms Score

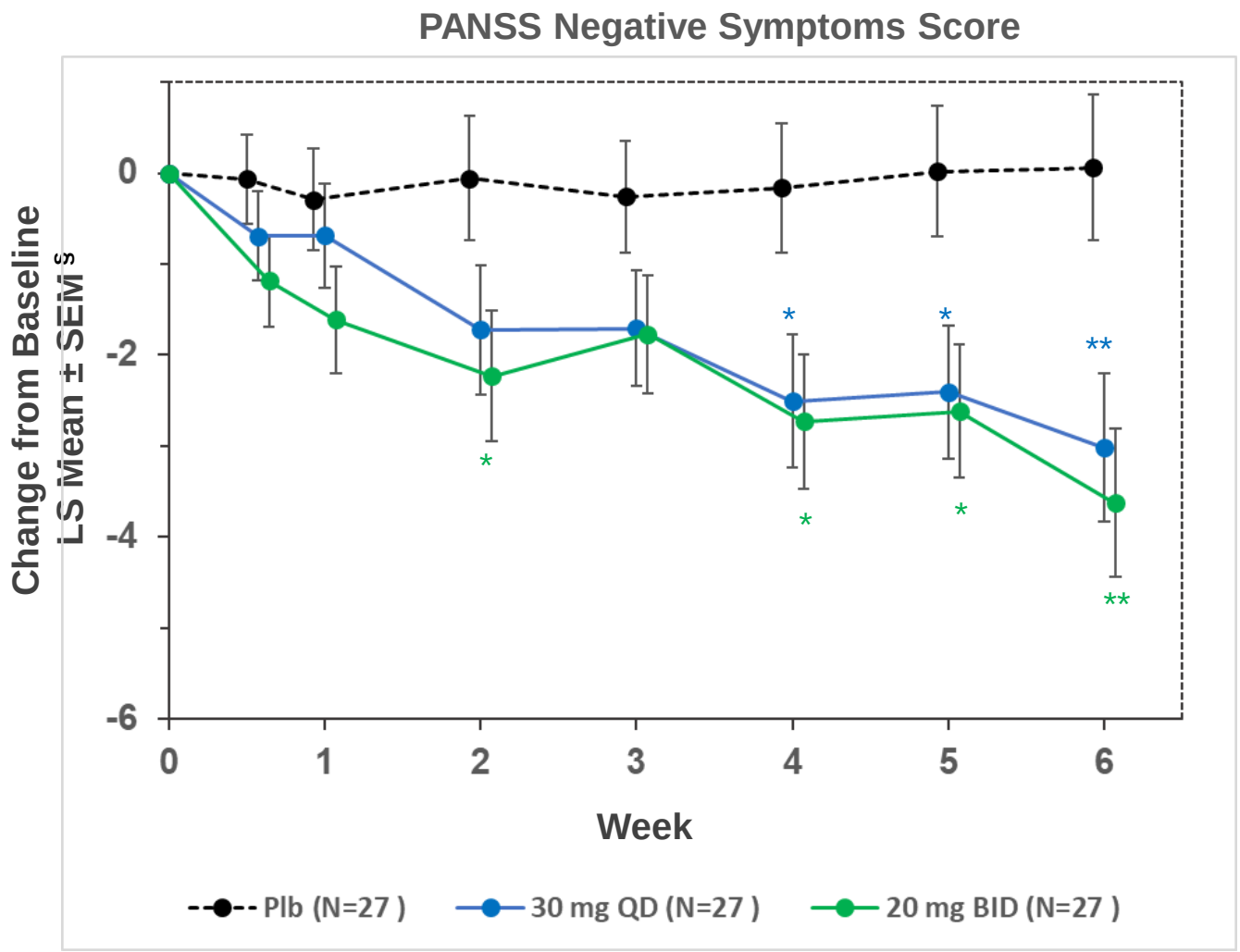


- 30 mg QD: 4.3 Point improvement versus placebo at Week 6 (6.8 of 30 mg QD vs 2.5 placebo) with P=0.016
- 20 mg BID: 2.4 Point improvement versus placebo at Week 6 (4.9 of 20 mg BID vs 2.5 placebo) with P=0.166
- Combined CVL 231: 3.3 Point improvement versus placebo at Week 6 (5.8 of CVL231 vs 2.5 placebo) with P=0.028

* P<0.05 vs Placebo ** P<0.01 vs Placebo

§ Derived from a mixed model for repeated measures (MMRM) with treatment group, visit, treatment group-by-visit interaction as fixed effect, baseline value as a covariate and the measurements within subject as repeated measures. An unstructured covariance matrix was used.

PANSS Negative Symptoms Score



- 30 mg QD: 3.1 Point improvement versus placebo at Week 6 (3.0 of 30 mg QD vs -0.1 placebo) with P=0.009
- 20 mg BID: 3.7 Point improvement versus placebo at Week 6 (3.6 of 20 mg BID vs -0.1 placebo) with P=0.002
- Combined CVL 231: 3.4 Point improvement versus placebo at Week 6 (3.3 of CVL231 vs -0.1 placebo) with P=0.001

*** P<0.05 vs Placebo ** P<0.01 vs Placebo**

§ Derived from a mixed model for repeated measures (MMRM) with treatment group, visit, treatment group-by-visit interaction as fixed effect, baseline value as a covariate and the measurements within subject as repeated measures. An unstructured covariance matrix was used.

Safety & Tolerability

Safety & Tolerability – Adverse Events

	PBO N= 27	CVL-231 30 mg QD N= 27	CVL-231 20 mg BID N= 27	All CVL-231 N= 54
Days on IMP				
Mean (SD)	37 (9.6)	36 (12.8)	35 (13.6)	36 (13.1)
Range	8, 42	4, 42	2, 42	2, 42
Number (%) Subjects with TEAE	14 (52%)	14 (52%)	15 (56%)	29 (54%)
Number (%) Subjects with TEAE Related to IMP	10 (37%)	7 (26%)	12 (44%)	19 (35%)
Number (%) Subjects with Serious TEAE	0	2 (7%)	1 (4%)	3 (6%)
Number (%) Subjects with AE of Special Interest (AESI)	3 (11%)	2 (7%)	4 (15%)	6 (11%)
Number (%) Subjects with TEAE Leading to Discontinuation of IMP	0	2 (7%)	1 (4%)	3 (6%)

Safety & Tolerability - Adverse Events

Incidences of All CVL-231 ≥ 2% and > Placebo

	PBO N= 27	CVL-231 30 mg QD N= 27	CVL-231 20 mg BID N= 27	All CVL-231 N= 54
Number (%) Subjects				
Headache	7 (26%)	8 (30%)	7 (26%)	15 (28%)
Nausea	1 (4%)	2 (7%)	2 (7%)	4 (7%)
Back pain	1 (4%)	2 (7%)	1 (4%)	3 (6%)
Blood creatine phosphokinase increased	0	1 (4%)	2 (7%)	3 (6%)
Dizziness	0	1 (4%)	2 (7%)	3 (6%)
Dry mouth	0	3 (11%)	0	3 (6%)
Somnolence	0	1 (4%)	2 (7%)	3 (6%)
Pruritus	0	1 (4%)	1 (4%)	2 (4%)

Safety & Tolerability

Serious AEs (SAEs) and AEs of Special Interest (AESIs)

	PBO N= 27	CVL-231 30 mg QD N= 27	CVL-231 20 mg BID N= 27	All CVL-231 N= 54
Number (%) Subjects with SAE				
COVID-19	0	0	1 (4%)	1 (2%)
Accidental overdose**	0	1 (4%)	0	1 (2%)
Schizophrenia**	0	1 (4%)	0	1 (2%)
Number (%) Subjects with AESI*				
Blood pressure increased	2 (7%)	0	0	0
Heart rate increased	1 (4%)	0	1 (4%)	1 (2%)
Blood pressure diastolic increased	0	0	1 (4%)	1 (2%)
Sinus tachycardia	0	0	1 (4%)	1 (2%)
Psychotic disorder**	0	0	1 (4%)	1 (2%)
Schizophrenia**	0	1 (4%)	0	1 (2%)
Accidental overdose**	0	1 (4%)	0	1 (2%)

***AEs leading to discontinuation of treatment with IMP. No other AE leading to discontinuation of IMP*

* AESIs specified in the protocol include 1. AEs that result in the discontinuation of treatment with IMP, 2. events that satisfy the criteria for suspected Hy's Law (ALT or AST >3 × ULN, AND serum bilirubin ≥2 × ULN, AND alkaline phosphatase <2 × ULN), 3. events of heart rate >120 bpm, and confirmed by ECG, 4. events of confirmed QTcF is >500 msec or the increase from baseline is >75 msec in subjects without significant hypokalemia, 5. events of mean triplicate blood pressure reading >160 mmHg systolic or >100 mmHg diastolic with confirmation.

Summary of Topline Results

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- **Clinically meaningful improvements in both PANSS Positive and PANSS Negative subscales**
- **Generally well-tolerated:**
  - Discontinuation rates similar between treatment and placebo (22% for each arm including placebo)
  - Not associated with extrapyramidal side effects or weight gain
  - Gastrointestinal (GI) side effects were infrequent and were similar between treatment and placebo
  - Serious adverse events included COVID-19, accidental overdose, and exacerbation of schizophrenia (one instance of each)
- **Data support advancing CVL-231 into Phase 2 program in schizophrenia and evaluating the potential for this mechanism in additional indications, including dementia-related psychosis**

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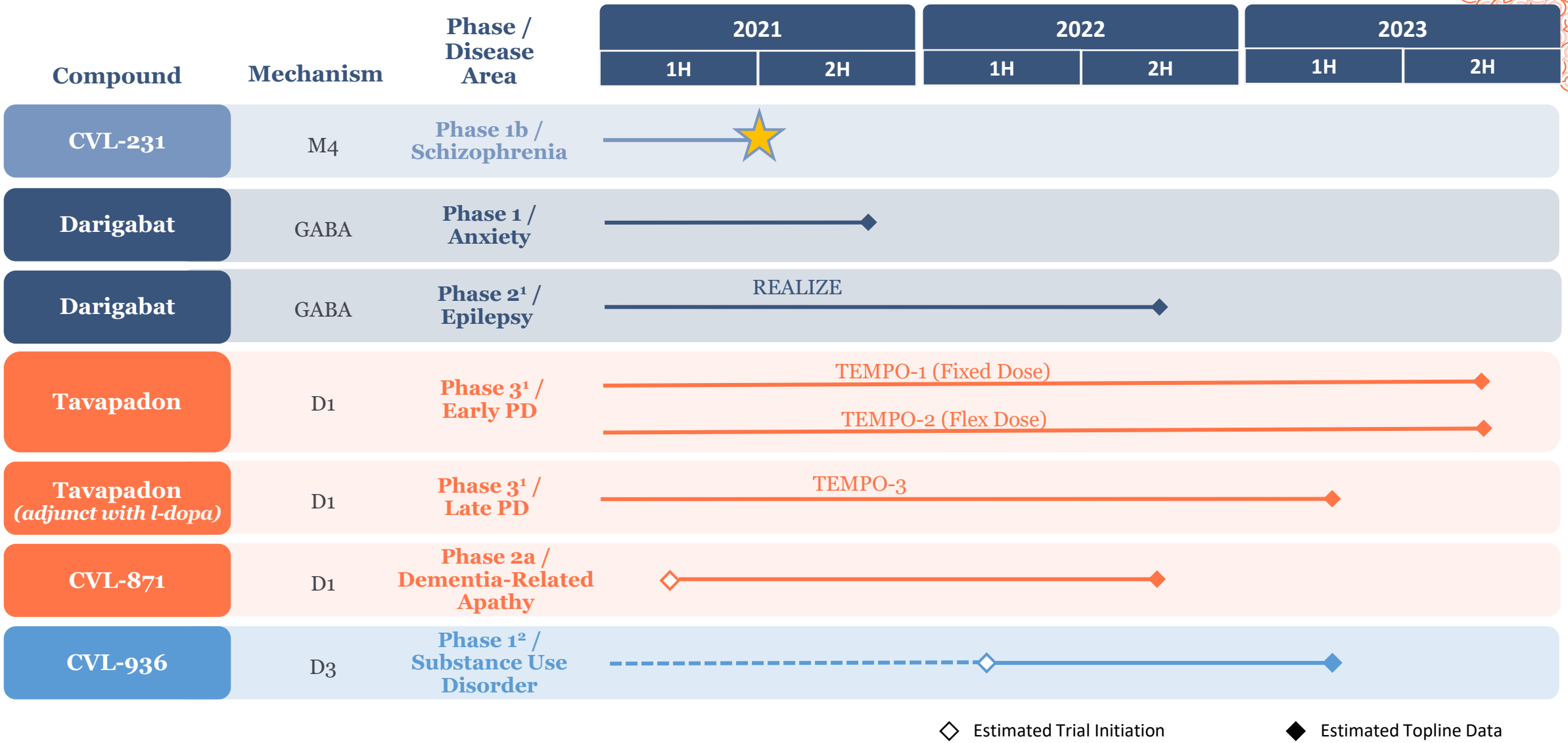
Multiple Milestones Expected Over Next Three Years



1. In addition, there are two open-label extension trials ongoing (REALIZE OLE for darigabat in epilepsy and TEMPO-4 for tavapadon)
2. We initiated a Phase 1 SAD trial for CVL-936 in January 2020. We concluded dosing of Cohort 1 of the Phase 1 SAD trial. We intend to conduct a multiple dose canine EEG study prior to resuming Phase 1 SAD and MAD evaluations.