MapLight

Corporate Presentation

November 16, 2026

Safe Harbor and Forward-Looking Statements

This presentation and any accompanying oral commentary have been prepared by MapLight Therapeutics, Inc. ("MapLight", "we," "us," "our," the "Company", or similar terms) for informational purposes only and not for any other purpose.

This presentation contains trademarks, service marks, trade names and copyrights of MapLight and other companies which are the property of their respective owners. This presentation discusses product candidates that are under pre-clinical and clinical study, and which have not yet been approved for marketing by the U.S. Food and Drug Administration. No representation is made as to the safety or efficacy of these product candidates for the uses for which they are being studied.

Statements contained in this presentation and the accompanying oral commentary, other than statements of historical facts, may be forward-looking statements, including, but not limited to: statements about our expectations regarding the potential benefits, efficacy and safety of our product candidates and platform; our expectations with regard to the design and results of our research and development programs, preclinical studies, and clinical trials; our preclinical, clinical, and regulatory development plans for our product candidates; our expectations with regard to our ability to discover, develop, license, or acquire additional product candidates and advance such product candidates into, and successfully complete, preclinical studies and clinical trials; the potential patient populations for our product candidates and any future product candidates; our cash runway; and our business strategy. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "targets," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. These statements involve substantial known and unknown risks, uncertainties and other factors that may cause our actual results, timing of results, levels of activity, performance, or achievements to be materially different from the information expressed or implied by these forward-looking statements. These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements. Risks and uncertainties that may cause actual results to differ materially include risks and uncertainties that are described in the "Risk Factors" section of our Company's Quarterly Report on Form 10-Q with the U.S. Securities and Exchange Commission ("SEC") on November 16, 2026 and other filings we make with the SEC from time to time. These documents are available under the "SEC Filings" page of the "Investors" section of our website at www.maplightrx.com.

New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially and adversely from those anticipated or implied in the forward-looking statements. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. 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. Except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements in this presentation and the accompanying oral commentary. 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. This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and other data about our industry. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

MapLight Therapeutics

Working to Improve the Lives of Patients Suffering From Debilitating CNS Disorders



Circuit-Driven Discovery Engine

- Founded by globally recognized leaders in neuropsychiatry to address lack of circuit-specific therapies
- Discovery platform to identify and validate novel drug targets causally linked to disease symptoms
- Diversified product pipeline with potential across several CNS disorders



Targeting Areas of High Unmet Need

- Novel M_1/M_4 muscarinic agonist in combination with a peripheral antagonist with a lead indication in schizophrenia, a disease affecting >20 million people globally (1)
- ~20-35%+ of patients with ASD experience clinically significant irritability or aggression, while available therapies have substantial safety and tolerability challenges (2)



Advancing Key Near-Term Milestones

- Plan to initiate ZEPHYR-2, a study of ML-007C-MA in schizophrenia intended to support NDA submission
- Plan to engage with the FDA at an End-of-Phase 2 meeting following the ASD irritability signal observed in IRIS
- Strong financial position with ~$463M in cash and runway through 2028 (3)
- Led by a team with CNS drug discovery and development expertise

ADP = Alzheimer's disease psychosis; ASD = autism spectrum disorder; CNS = central nervous system.

(1) World Health Organization (WHO). "Mental disorders." September 2026.

(2) Alatrash et al., 2024; Manter et al., BMC Medicine 2025.

(3) Unaudited cash, cash equivalents, and investments as of September 30, 2026.

MapLight

Broad and Diversified Pipeline

Program	Circuit	Indications	Preclinical	Phase 1	Phase 2	Phase 3	Anticipated Milestones
ML-007C-MA M_1/M_4 agonist co-formulated with PAC	Direct and Indirect Pathways	Schizophrenia			ZEPHYR		Engage with FDA at EOP2 meeting
		Alzheimer's Disease Psychosis		Fast Track	VISTA		Topline results in 2H 2027
ML-004 5-$HT_{1B/1D}$ agonist	Dorsal Raphe to Nucleus Accumbens	Autism Spectrum Disorder Sociability/Irritability			IRIS		Engage with FDA at EOP2 meeting
ML-009 GPR52 PAM	Indirect Pathway	Hyperactivity/Impulsivity					IND-enabling studies complete (1)
ML-055 Next-Gen M_1/M_4 agonist	Direct and Indirect Pathways	Neuropsychiatric Disorders					Nominate preclinical candidate in 2026 (1)
ML-021 M_4 antagonist	Direct Pathway	Parkinson's Disease					Finalize preclinical candidate in 2027 (1)

Potential in other indications being explored

GPR = G-protein-coupled receptor. PAC = peripherally acting anti-cholinergic. PAM = positive allosteric modulator.
(1) The Company is pausing significant further investment in preclinical and discovery-stage programs beyond near-term milestones and foregoing advancement of those programs into clinical development under the current operating plan.

MapLight

ML-007C-MA

Lead Asset in Development for Schizophrenia and ADP

Unmet Need in Schizophrenia Remains High

Affects Over 20 Million People Globally, Including More Than 3 Million in the U.S.

Patients Remain Underserved by Current SOC Antipsychotics…

2024: First New Mechanism Approved in Decades (Cobenfy)

…Yet Significant Treatment Gaps Still Remain After First Muscarinic Approval



~30%

show no meaningful response to treatment (1)



~40-50%

experience an inadequate response to standard of care (1)



~70%

discontinue oral therapies within 18 months, often due to burdensome side effects (e.g., EPS, weight gain) (2)



Cognitive benefit remains unproven

Existing evidence is derived from post hoc or exploratory pooled analyses across two studies



Many patients cannot reach or remain at target dose

Failure to achieve adequate therapeutic exposure may leave symptoms insufficiently controlled (3)



Tolerability burden is exacerbated in real world

Tolerability challenges observed in controlled trials amplified in practice, given dosing / fasting complexity (3)

SOC = standard of care; EPS = extrapyramidal symptoms.

(1) Siskind et al., Br J Psychiatry (2022); treatment-resistant≥2 treatments. Samara et al., Schizophrenia Bulletin (2019); response as measured within 4-6 weeks.

(2) Lieberman et al., NEJM (2005). CATIE trial; all-cause discontinuation.

(3) BMS. Real-world transition strategies with xanomeline/trospium. Poster, Psych Congress 2025.

MapLight

Developing a Differentiated Treatment, Designed to Translate into Real-World Use

ZEPHYR Schizophrenia Study



Statistically Significant Across Complementary Measures

- Met the primary endpoint on PANSS Total Score (ES=0.37), with a stronger effect in completers in which there are no modelled assumptions of missing data (ES=0.50)
- Achieved significance on CGI-S and PANSS Positive Marder Factor



Potentially Differentiating Cognitive Signal

- Prespecified Cognitive Composite Score improved significantly (ES=0.51)
- Change in the cognitive composite score was independent of changes in PANSS, suggesting it was not simply driven by better control of psychotic symptoms



Tolerability Built for Real-World Use

- No serious or drug-related severe adverse events; 99% of patients reached the target dose; low rates of moderate GI side-effects
- No fasting requirement or complex titration, unlike other agents in the class, potentially increasing adherence and persistence

Data support advancement of 210/3 mg BID into a confirmatory pivotal trial and continued investment in indication expansion, leveraging the observed cognitive signal; next steps will be guided by the planned EOP2 meeting

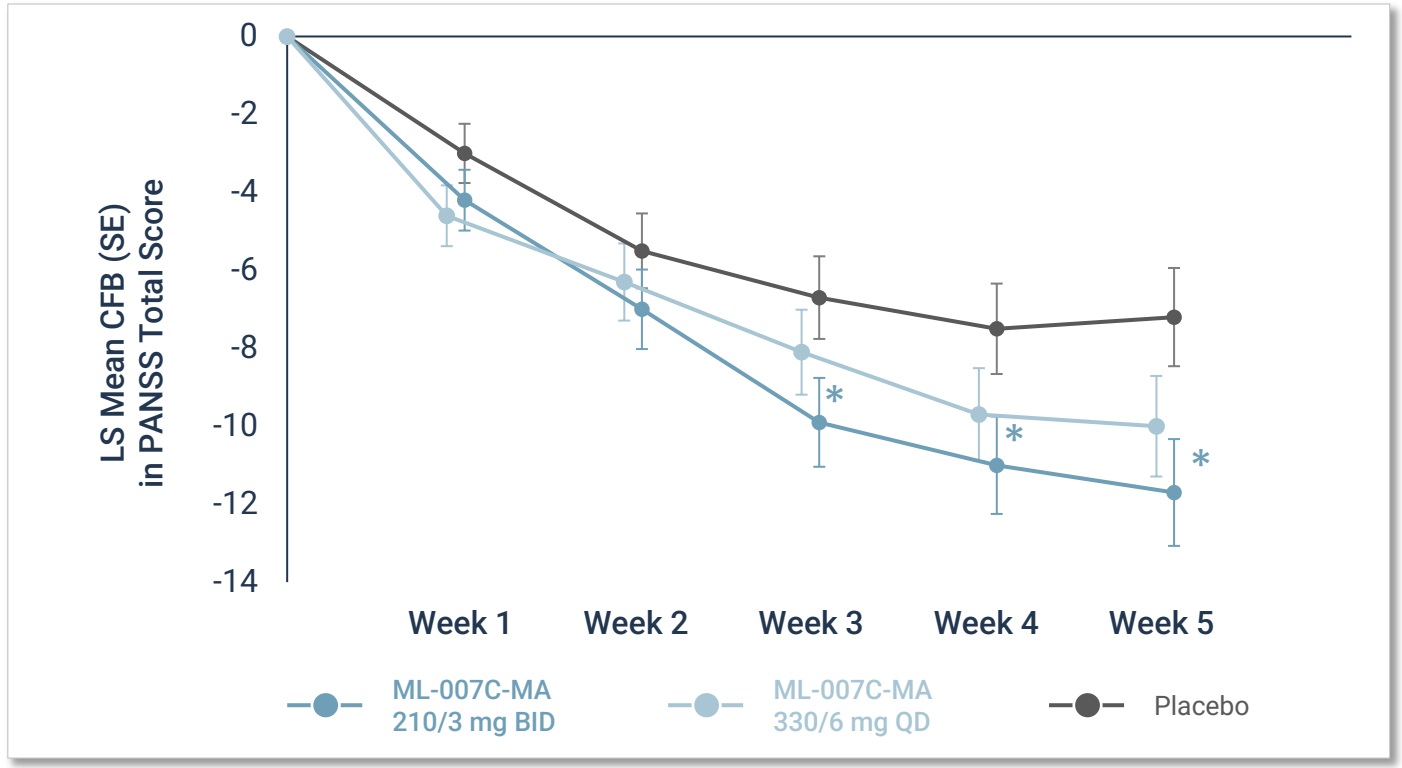
MapLight

Primary Endpoint: PANSS Total Score

210/3 mg BID Met Primary Endpoint

ZEPHYR Schizophrenia Study

Change From Baseline in PANSS Total Score (LS Mean Difference)



	Placebo	210/3 mg BID	330/6 mg QD
N	N=103	N=93	N=98
LS Mean CFB	-7.2	-11.7	-10.0
LS Mean Diff vs. Placebo		-4.5	-2.8
P-value		**p=0.015**	p=0.110
Effect Size		**0.37**	0.23

- ZEPHYR met its primary endpoint: Demonstrated a statistically significant, clinically meaningful reduction in PANSS total score vs. placebo at Week 5
- 210/3 mg dose is also being evaluated for the treatment of ADP (VISTA[1] study ongoing)

**p<0.05*
LS = least squares; SE = standard error.
Note: Negative treatment deltas favor active treatment; effect size presented as an absolute value. Analysis based on the mITT population.
(1) NCT06887192: Evaluating ML-007C-MA for the treatment of hallucinations and delusions associated with Alzheimer's Disease Psychosis (ADP)

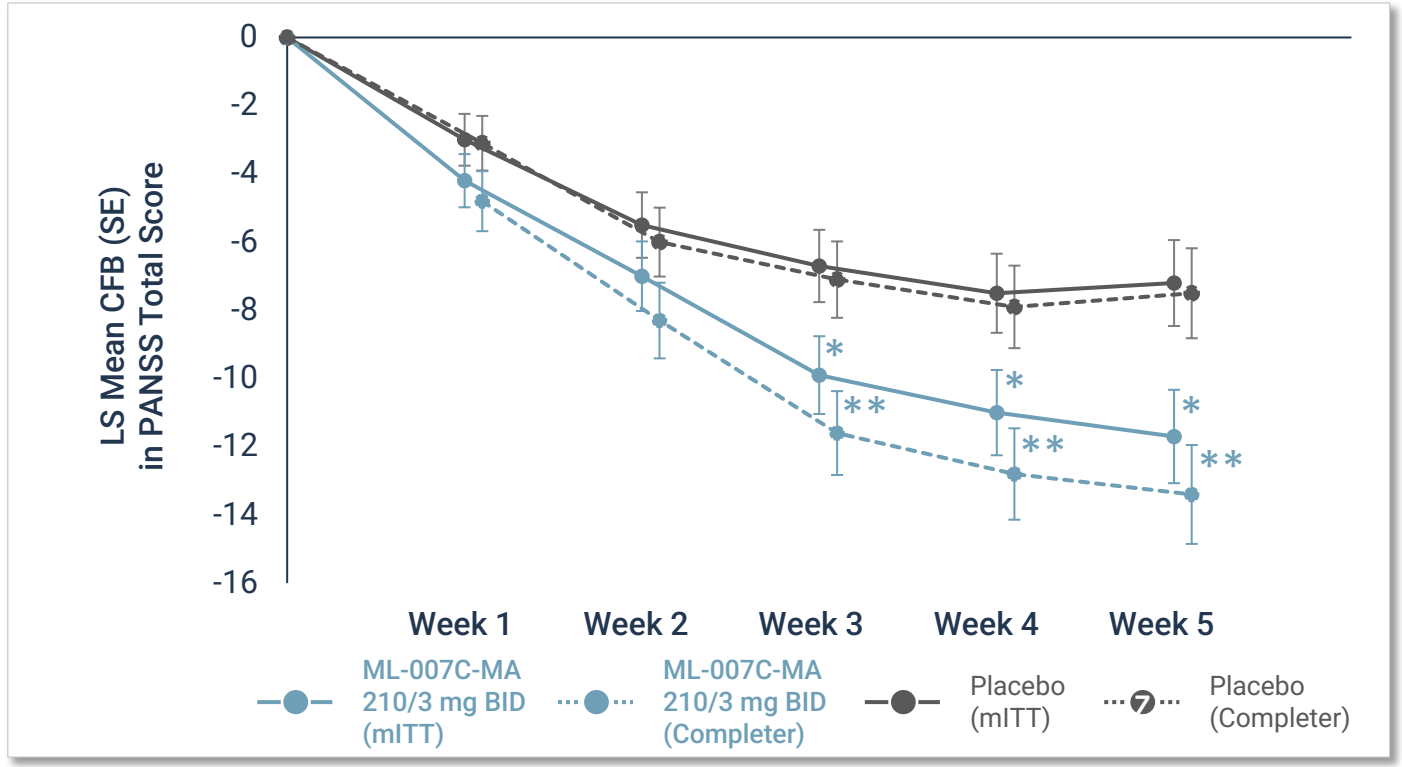
MapLight

Primary Endpoint: PANSS Total Score

Robust Effect Demonstrated in Prespecified Completer Analysis

ZEPHYR Schizophrenia Study

Change From Baseline in PANSS Total Score (LS Mean Difference)



	Placebo (Completers)	210/3 mg BID (Completers)
N	N=88	N=73
LS Mean CFB	-7.5	-13.4
LS Mean Diff vs. Placebo		-6.0
P-value		**p=0.002**
Effect Size		**0.50**

- The completer analysis excludes modelled assumptions about missing data, relying solely on observed data from the full assessment period
- Bigger difference in completer analysis driven mostly by improvement in BID arm, not placebo

**p<0.05, **p<0.01*
MMRM= Mixed model for repeated measures.
Note: Negative treatment deltas favor active treatment; effect size presented as an absolute value. Analysis based on the mITT population.

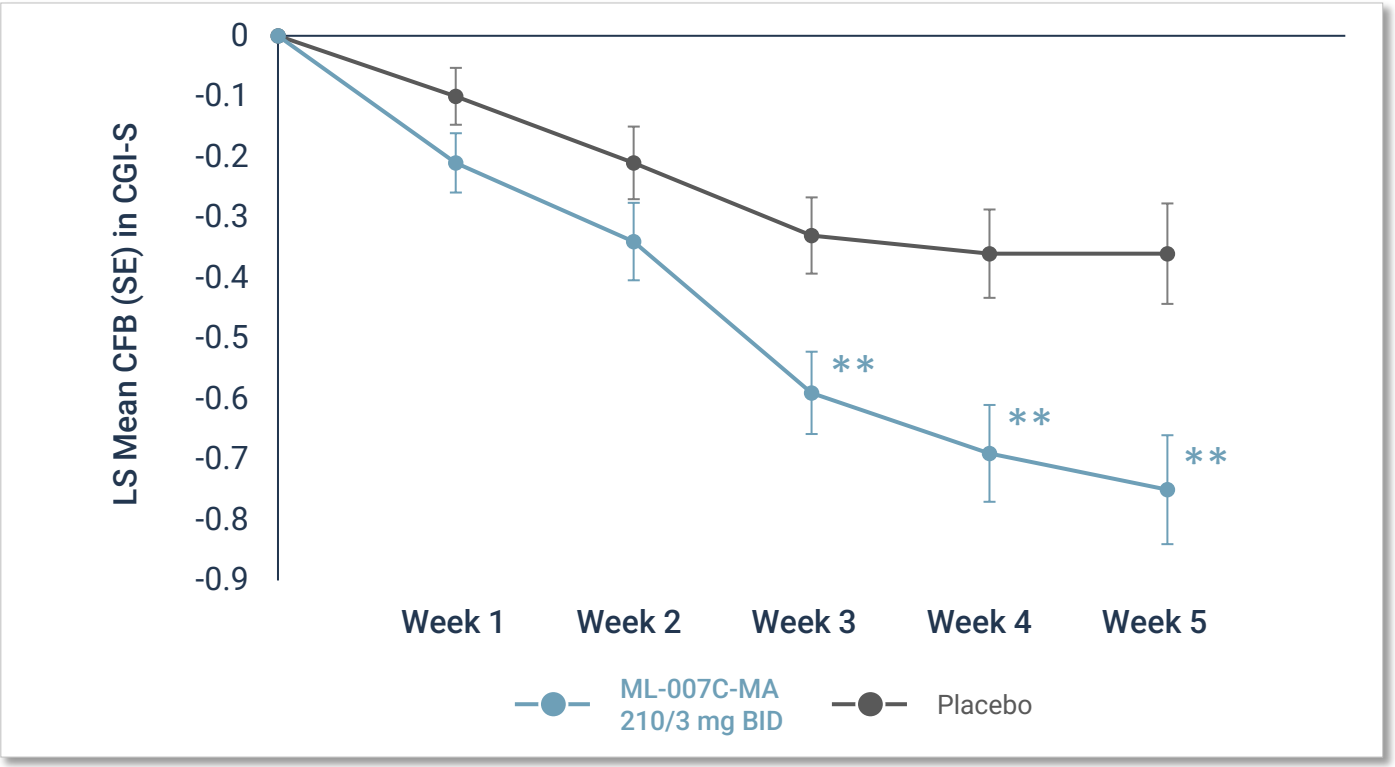
MapLight

Key Secondary Endpoint: CGI-S

Significant Improvement Corroborates PANSS Improvement

ZEPHYR Schizophrenia Study

Change From Baseline in CGI-S (LS Mean Difference)



- Clinically meaningful and statistically significant improvement in CGI-S vs. placebo at Week 5
  - 0.38-point improvement
  - -0.75 active vs. -0.36 placebo
  - p=0.002(1)
  - ES = 0.48
- Numerical separation starting at Week 1, with statistical significance emerging by Week 3 and continuing over time

***p<0.01*
Note: Negative treatment deltas favor active treatment; effect size presented as an absolute value. Analysis based on the mITT population.
(1) Multiplicity-adjusted one-sided P value= 0.017

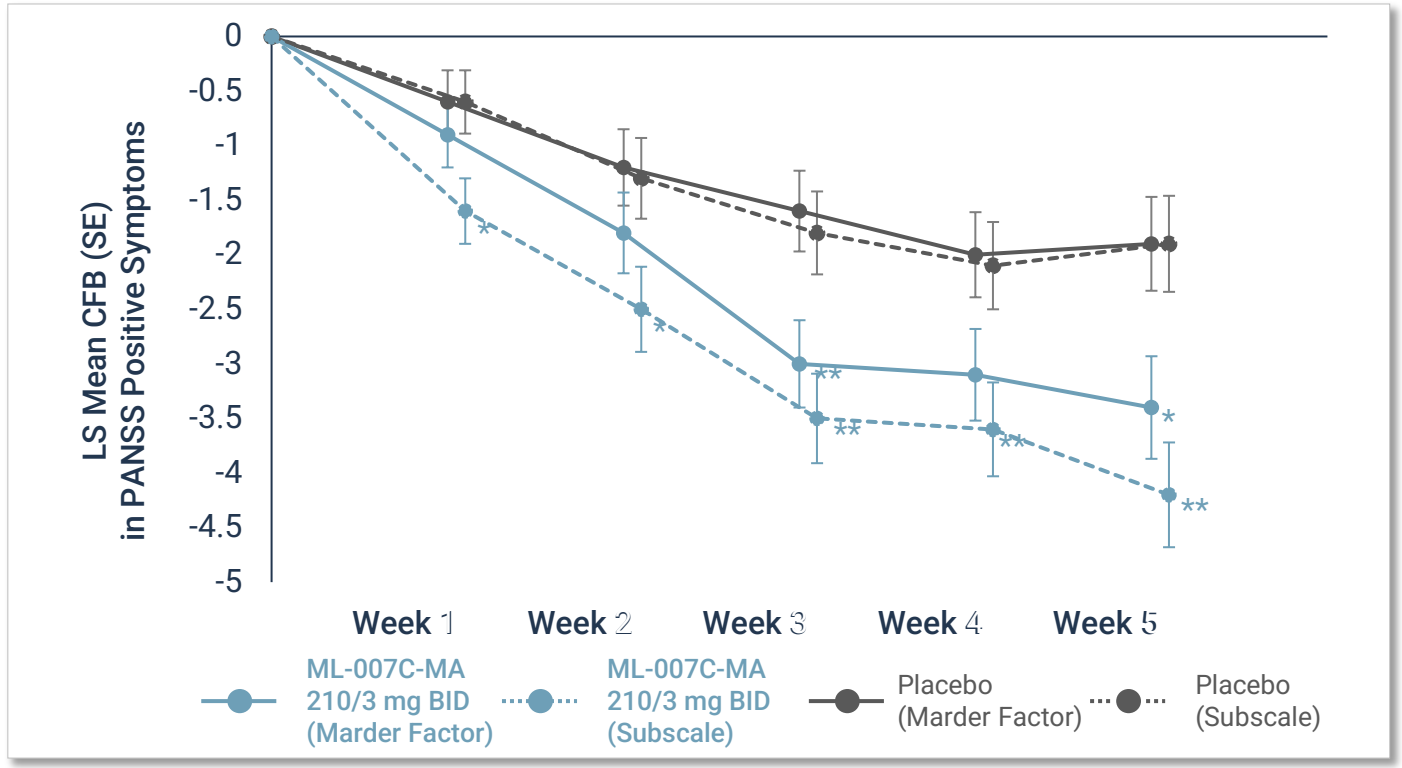
MapLight

PANSS Positive Symptoms

Significant Improvement in PANSS Positive Marder Factor and Positive Subscale

ZEPHYR Schizophrenia Study

Change From Baseline in PANSS Positive Symptoms (LS Mean Difference)



	Placebo	PANSS + Marder	PANSS + Subscale
N	103	93	93
LS Mean CFB	-1.9/-1.9 (Marder/ Subscale)	-3.4	-4.2
LS Mean Diff vs. Placebo		-1.6	-2.3
P-value		**p=0.012**	**p=0.0003**
Effect Size		**0.39**	**0.56**

- Clinically meaningful and statistically significant improvement in PANSS positive symptoms vs. placebo at Week 5
- PANSS Positive Marder Factor was a key secondary- PANSS positive Subscale was prespecified

**p<0.05 , **p<0.01*
Note: Negative treatment deltas favor active treatment; effect size presented as an absolute value. Analysis based on the mITT population.

MapLight

Secondary Endpoint: Cognitive Composite

Robust and Clinically Meaningful Improvement on Cognitive Performance

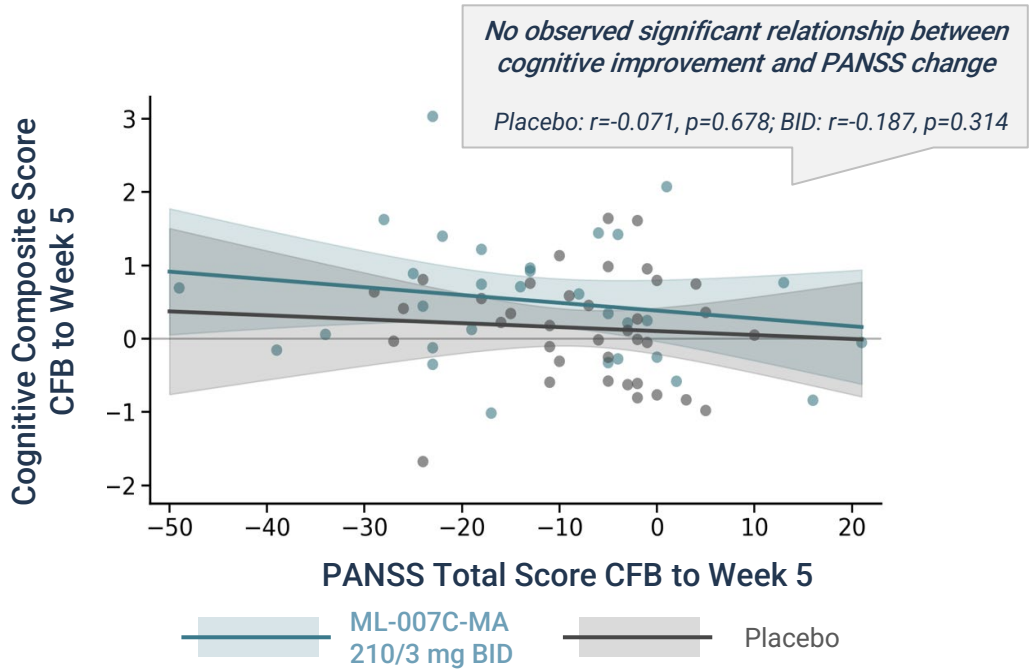
ZEPHYR Schizophrenia Study

Pre-specified Cognitive Composite Score Results

Cognitive Composite Score

	Placebo	210/3 mg BID
N with baseline impairment	N=37	N=31
LS Mean Change from Baseline	0.11	0.55
LS Mean Difference vs. Placebo		0.44
P-value		**p=0.041**
Effect Size		**0.51**

Dose used in VISTA



Note: Prespecified Cognitive Composite score derived from Cogstate Battery consisting of 6 individual tests

MapLight

Implications of Cognitive Signal Beyond ZEPHYR

ZEPHYR Schizophrenia Study

Supports Rationale for VISTA and Broader Development

Cognitive Impairment Remains an Unmet Need

- Cognitive impairment is estimated to affect >80% of patients with schizophrenia [1]
- Cognitive impairment is a major determinant of long-term functional outcomes, including employment, independent living and quality of life
- Despite decades of research, no therapies have been approved to treat cognitive impairment in schizophrenia
  - Highlights both the unmet need and the difficulty of demonstrating meaningful cognitive benefit
  - Sedation and dopamine blockade from many SOC antipsychotics may worsen cognition

The Signal Supports the Underlying Biology

- The cognitive benefit was observed on a prespecified secondary endpoint
- Change in the cognitive composite score was independent of changes in PANSS, suggesting it was not simply driven by better control of psychotic symptoms
- The finding is consistent with the established role of M1 receptor activation in learning and memory, strengthening confidence in the underlying mechanism

Why This Matters for VISTA [3] and Future Development

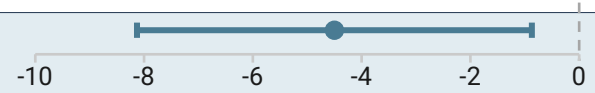
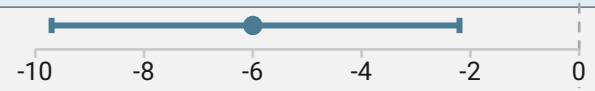
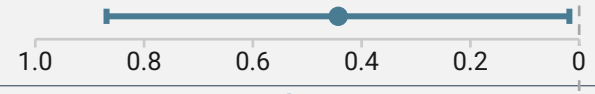
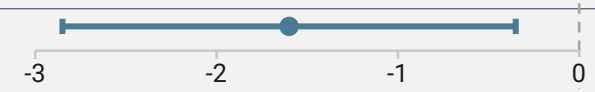
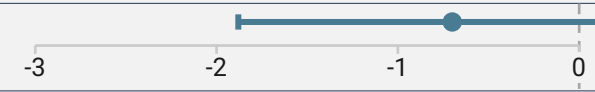
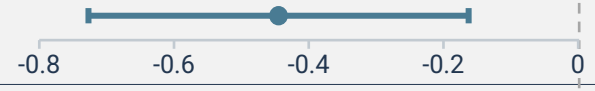
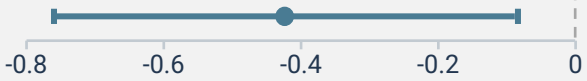
- A positive cognitive signal observed outside AD increases confidence that the biology translates across neuropsychiatric populations
- Off-label use of antipsychotics in ADP has been associated with accelerated cognitive decline (CATIE-AD), highlighting the need for new therapies [2]
- The 210/3 mg BID dose currently being evaluated in VISTA is the same dose that demonstrated cognitive benefit in ZEPHYR

(1) *Maroney, Ment Health Clin. 2022.*
(2) *Vigen et al., Am J Psychiatry. 2011.*
(3) *NCT06887192: Evaluating ML-007C-MA for the treatment of hallucinations and delusions associated with Alzheimer's Disease Psychosis (ADP).*

MapLight

210/3 mg BID Demonstrated Effect Across Multiple Endpoints and Symptom Domains

ZEPHYR Schizophrenia Study

	N Active / PBO	LS Mean Difference [95% CI] ← *ML-007C-MA favored* *PBO favored* →	Effect Size	P-value
PANSS Total Score – mITT	93 / 103		**0.37**	**0.015**
PANSS Total Score - Completers	73 / 88		**0.50**	**0.002**
CGI-S	93 / 103		**0.48**	**0.002**
Cognitive Composite	31 / 37		**0.51**	**0.041**
PANSS Marder Positive Factor	93 / 103		**0.39**	**0.012**
PANSS Marder Negative Factor	93 / 103		0.18	0.244
CGI-C	93 / 103		**0.47**	**0.002**
PGI-C	93 / 103		**0.38**	**0.015**

Participants on active treatment were, compared to placebo:

- 2.4x more likely to achieve ≥30% response on the PANSS total score by Week 5 (p=0.021)
- 2.8x more likely to be ready for discharge out of the inpatient hospital setting by Week 5 (p=0.002)

CGI-C = Clinical Global Impression of Change; PGI-C = Patient Global Impression of Change.
Note: Graphed data represent the LS mean difference (ML-007C-MA 210/3 mg BID – placebo) and 95% confidence intervals

MapLight

ML-007C-MA Was Generally Well Tolerated

ZEPHYR Schizophrenia Study

Adverse Events Mostly Mild

- Adverse events, primarily cholinergic in nature, were mostly mild
- No serious or drug-related severe TEAEs occurred with either dose (1)
- The only severe TEAE (pneumonia) was assessed as unrelated to study drug

GI Events Rarely Led to Discontinuation with BID Dosing

- There were no instances of failure to reach target dose due to tolerability
- Dose reduction due to TEAE was infrequent (4 participants); TEAEs leading to dose reduction started in the first week, and most (75%) completed treatment following dose reduction
- Low rates of moderate GI side-effects
- Low rates of discontinuation (2 participants) due to gastrointestinal adverse events

No Signal Across Key Safety Domains

- No urinary retention signal observed: The active and placebo arms each had a single moderate urinary event (UTI)
- No metabolic, hepatic, or EPS signals observed: mean weight, glucose, lipid, liver enzyme, and movement-related parameters remained comparable to placebo
- Heart rate increases were mild and consistent with the fesoterodine label, with no evidence of significant blood pressure elevation

(1) Single serious adverse event occurred in placebo arm was worsening schizophrenia.

Most Adverse Events Were Mild

All Cause Discontinuation Was Low at 19.9% Across Active Treatment Arms

ZEPHYR Schizophrenia Study

Rates of TEAEs With BID Dosing

	Placebo N=104	210/3 mg BID N = 99
Discontinuations		
Due to TEAE	1.0%	7.1%
Due to GI TEAE	0	2.0%
Utilization of Lower Dose		
Dose Reduction Due to TEAE	1.9%	4.0%
Inability to Reach Target Dose	0	1% (1)
Any TEAE	48.1%	74.7%
Mild	36.5%	48.5%
Moderate	11.5%	25.3%
Severe TEAE	0	1.0% (2)
Serious TEAE	1.0%	0

GI TEAEs ≥2% in Active Arm and > Placebo

	Placebo N=104		210/3 mg BID N = 99	
	Mild	Moderate	Mild	Moderate
Nausea	6%	0	20%	9%
Vomiting	1%	2%	9%	4%
Dyspepsia (3)	0	1%	8%	1%
Constipation	3%	0	8%	1%
Abdominal pain (3)	3%	0	6%	3%
Diarrhea	1%	0	5%	0
GERD	2%	0	2%	0

All GI TEAEs were mild to moderate in severity

- Other TEAEs ≥5% included: headache, salivary hypersecretion, dizziness, hyperhidrosis, hot flushes, somnolence, chills, decreased appetite, tremor, and insomnia
- Single episode of unrelated hypertension; one episode of orthostatic hypotension observed in each of the placebo and BID dosing arms

AE = adverse event.

(1) One participant was withdrawn due to baseline (pre-dose) lab findings following titration dose but prior to first target dose.

(2) Assessed as unrelated to study drug (pneumonia).

(3) Dyspepsia includes dyspepsia and esophageal discomfort; abdominal pain includes abdominal discomfort, abdominal pain upper, abdominal pain, abdominal pain lower, abdominal distension, and abdominal tenderness

MapLight

Rates of TEAEs for Cobenfy in Pivotal Studies

All Cause Discontinuation Ranged From 25.4%-36.8% at 5 weeks [1]

	EMERGENT-2		EMERGENT-3	
	Placebo	Active	Placebo	Active
Discontinuations				
Due to TEAE	5.6% [2]	7.1% [2]	5.5% [3]	6.4% [3]
Due to GI TEAE	Not reported	3.2% [4]	Not reported	3.2% [4]
Utilization of Lower Dose				
Dose Reduction Due to TEAE[1]	0	5.6%	0.8%	0.8%
Inability to Reach Target Dose	1.6% [2]	17.5% [2]	9% [5]	21% [5]
Any TEAE	58.4%	75.4%	50.0%	70.4%
Mild [1]	27.2%	38.1%	25.8%	36.0%
Moderate [1]	24.8%	28.6%	20.3%	26.4%
Severe TEAE [1]	4.0%	7.1%	2.3%	8.0%
Serious TEAE	1.6% [2]	1.6% [2]	0	0.8% [6]

Moderate-or-worse TEAE burden was meaningfully lower for ML-007C-MA (26%) than reported in Cobenfy's pivotal trials (34-36%)

GI TEAEs ≥2% in Active Arm and > Placebo

	Cobenfy FDA Label	
EMERGENT-2/3 Pooled	Placebo (N=253)	Active (N=251)
Nausea	4%	19%
Dyspepsia [7]	5%	18%
Constipation	7%	17%
Vomiting	1%	15%
Abdominal Pain [7]	4%	8%
Diarrhea	2%	6%
GERD	<1%	5%

- **51%-78% did not complete 1 year of treatment in the open-label studies** [8]
- **Real-world non-persistence is ~80% by Month 13** [9]
- **Real-world Patient Experience (N=90)** [10]

>2-3x *the rates of nausea and vomiting*

>80% *did not reach the highest dose (125/30 mg)*

55% *received medication for GI events*

>50% *had no or only partial response to intervention*

(1) *Cobenfy FDA Summary Basis of Approval (SBA).*
(2) *EMERGENT-2 primary manuscript: Kaul et al., 2024. Pbo: appendicitis(n=1), schizophrenia (n=1). Active: suicidal ideation (n=2).*
(3) *EMERGENT-3 primary manuscript: Kaul et al., 2024.*
(4) *Pooled EMERGENT-2 and -3 rate. 8 participants discontinued in the Cobenfy arm per the SBA (Table 35) in the pooled EMERGENT-1,2,3 studies. Per Karuna 2023 10-K filing, only N=2 participants discontinued from the active arm of EMERGENT-1 (N=89), neither from the GI system organ class.*
(5) *Karuna 2023 10-K filing.*
(6) *EMERGENT-3 topline results, per Karuna Therapeutics press release (March 2023). Active: GERD (n=1).*
(7) *Dyspepsia includes dyspepsia and esophageal discomfort; abdominal pain includes abdominal discomfort, abdominal pain upper, abdominal pain, abdominal pain lower, and abdominal tenderness.*
(8) *EMERGENT-4 and EMERGENT-5 results, Kaul et al., 2026.*
(9) *Non-persistence: MapLight estimate, third-party Rx data.*
(10) *Retrospective analysis of real-world transition strategies for xanomeline and trospium chloride in adult patients with schizophrenia. Poster, Psych Congress 2025.*

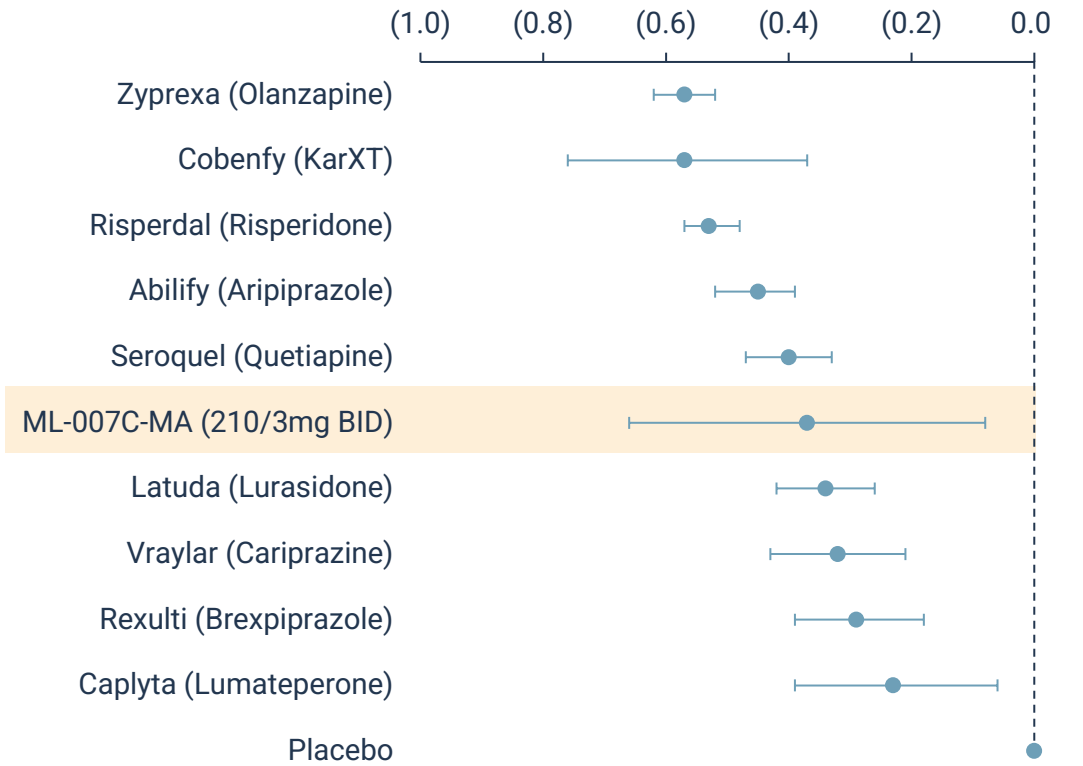
MapLight

Significant Opportunity for New Therapies

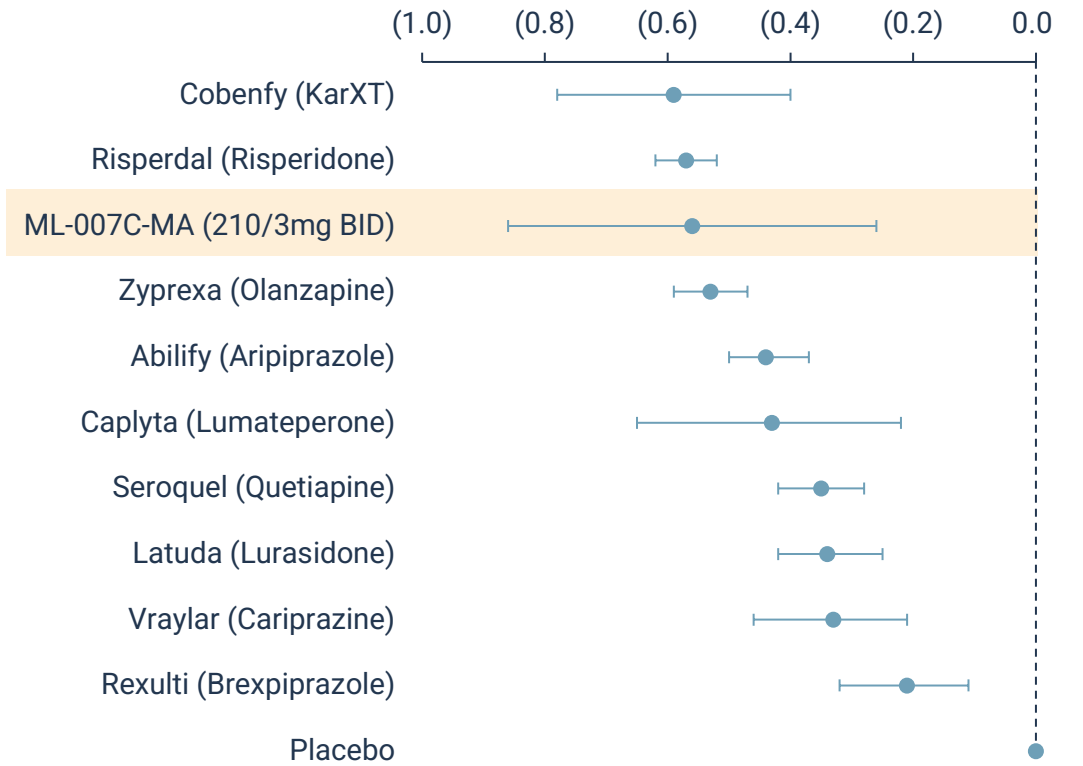
210/3 mg BID Effect Size Falls Within the Range of Approved Antipsychotics

ZEPHYR Schizophrenia Study

PANSS Total Score



PANSS Positive Symptoms Score



Sources: Approved antipsychotic effect sizes per Huhn et al., Lancet 2019; Correll et al., JAMA Psychiatry 2020; Cobenfy per Fabiano et al., 2025 meta-analysis.
Note: Standardized Effect Sizes (Cohen's d) shown. Assessments reflect management's current views based on publicly available information; comparisons across studies are comprised of indirect evidence and are subject to uncertainty around interpretation; no head-to-head studies were conducted to develop the data shown. Differences exist among study designs, and caution should be exercised when comparing data across trials.

MapLight

ML-007C-MA Target Product Profile has Potential to be Differentiated Across Multiple Dimensions

ZEPHYR Schizophrenia Study

In development

	Program *Mechanism of Action*	ML-007C-MA (1) *M_1/M_4 Agonist + Peripheral Antagonist*	Cobenfy (2) *M_1/M_4 Agonist + Peripheral Antagonist*	Emraclidine (3) *M_4 PAM*	Direclidine (4) *M_4 Agonist*	SOC Antipsychotics *Primarily D_2-blockade*
Factors expected to impact real world translation	Efficacy in RCTs	210/3 mg BID hit primary endpoint		*Not stat. sig. in Ph 2*	*U-shaped dose response*	
	Cognitive Improvement	Prespecified secondary endpoint	*Post-hoc/pooled analyses*	*No activity at M_1*	*No activity at M_1*	*Some may cause impairment*
	Tolerability/Safety	Meaningfully lower rates of significant side effects	*Moderate to severe TEAEs*			*Metabolic, movement, sedation*
	No Fasting Requirement	Taken with food	*Must be taken fasted*			
	Simple Titration	One-dose titration	*3-8 day, 2-step titration*			*Varies across APs*
	Dosing Frequency	QD dose to be further explored	*BID*			*Varies across APs*

RCT = randomized controlled trials; PAM = positive allosteric modulator.
Note: Assessments reflect management's current views based on publicly available information and internal analyses; comparisons are qualitative and subject to uncertainty around interpretation. Differences exist among study designs, and caution should be exercised when comparing data across trials.
(1) Based on results from ZEPHYR-1 Phase 2 study, and product profile is subject to the completion of additional studies and review by the FDA
(2) Based on FDA prescribing information.
(3) Based on results from the Phase 2 EMPOWER-1 and EMPOWER-2 clinical trials, which failed to demonstrate a statistically significant improvement in PANSS total score.
(4) Based on results from the Phase 2 clinical trial, which showed statistically significant improvement only at the lowest dose of the four active drug arms evaluated.

MapLight

Phase 3 Program and Path to NDA Submission

ZEPHYR Schizophrenia Study

Confirmatory Pivotal Trial Expected to Support Initial Approval

ZEPHYR-1 (Study 211)

Complete

- Established primary efficacy signal and safety for 210/3 mg BID
- Result supports pivotal status, pending confirmation with the FDA

Engage with the FDA at EOP2 Meeting

ZEPHYR-2 (Study 311)(1)

Planned

- Similar design to Phase 2, evaluating 210/3 mg BID vs. placebo in U.S. sites
- Together with Study 211, intended to support initial NDA submission

ZEPHYR-3 (Study 312)

For Future Consideration

- Additional pivotal trial evaluating 210/3 mg BID
- Potential to evaluate an alternate QD regimen (would pursue as sNDA)

VISTA (Study 221)

Ongoing — Topline results expected in 2H 2027

- Trial in ADP patients evaluating 210/3 mg BID (potentially registrational)
- Enrollment ongoing, supported by ZEPHYR's prespecified cognitive signal

Evaluating potential in additional indications, including for the treatment of mild-moderate Alzheimer's disease

(1) Subject to FDA feedback at EOP2 Meeting.

ML-007 Target Positioning: Clinically Meaningful Symptom Improvement, Well Tolerated, Built for Simple, Real-World Dosing

EFFICACY

Meaningful, Concordant Efficacy Across Core Measures

- Consistent, clinically meaningful benefit across PANSS, global measures, and responder analyses
- Effect size of 0.37 in mITT and 0.50 among study completers

COGNITION

Prespecified Cognitive Signal, Independent of Symptom Change

- Prespecified cognitive benefit observed in patients with baseline impairment
- Cognitive improvement was independent of improvements in PANSS

SAFETY & TOLERABILITY

Well Tolerated, With Low Anticholinergic Burden and Discontinuation Rates

- 99% of adverse events were mild or moderate; 80% completed treatment
- Low anticholinergic burden, no urinary-retention signal, and placebo-like cardiometabolic profile

DOSING & ADMINISTRATION

Simple Initiation and Administration Translating to Better Real-World Use

- 99% reached the target dose following a simple, one-step initiation
- No fasting requirement, supporting straightforward and practical real-world use

MapLight

ML-004

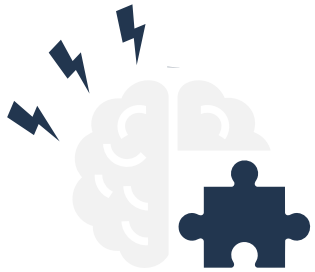
5-HT1B/1D Agonist in Development for Autism Spectrum Disorder (ASD)

Unmet Need in ASD Irritability Remains High



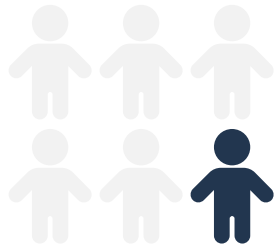
~830K

adolescents diagnosed with ASD (U.S., 2039E) (1)



~20-35%+

experience clinically significant irritability or aggression (2)



1 in 6

young people with ASD receive antipsychotics (3)



Only 2

approved therapies both with warnings and precautions relevant to adolescents

Incomplete Treatment Response

Additional options are needed to improve responses across a heterogeneous population

Meaningful Side-Effect Burden

Weight gain, sedation and movement-related effects may impair daily functioning

Challenges with Long-Term Use

Tolerability concerns may limit chronic treatment, particularly in younger populations

Caregiver Hesitancy

Safety concerns may discourage treatment, particularly in younger patients without psychosis

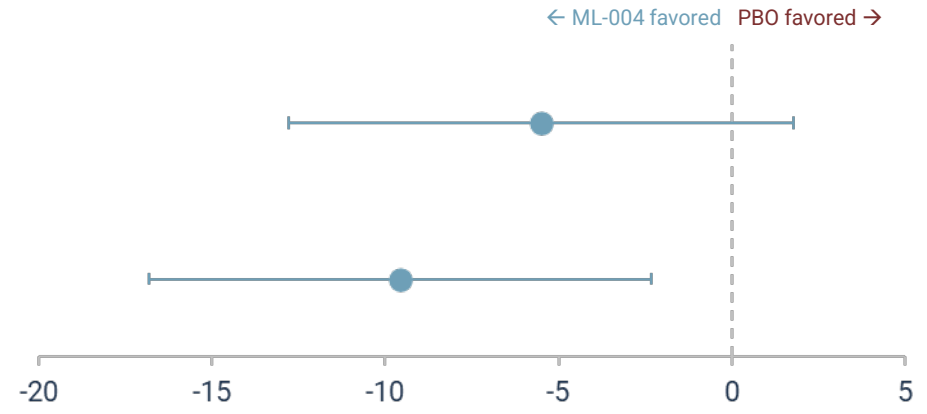
(1) *2039 projection of U.S. adolescents; 2022 NSCH and Grosvenor et al., 2023 claims data.*
(2) *Alatrash et al., 2024; Manter et al., BMC Medicine 2025.*
(3) *Park et al., JAACAP 2016 meta-analysis.*

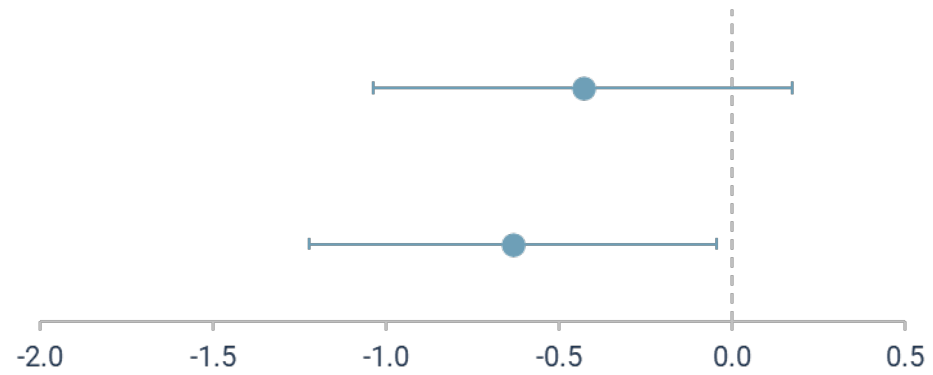
Irritability Outcomes

Includes Subjects with ABC-I ≥16 at Baseline

Two measures of irritability assessed by different raters

LS Mean Difference vs. Placebo (95% CI), by Scale and Age Group





		LS Mean Diff. [95% CI]	Effect Size	P-value (* $p < 0.05$)
ABC-I Subscale (1) *Care partner-reported*	Total N = 26	-5.5 [-12.8, 1.8]	0.64	0.131
	Adolescent N = 20	-9.6 [-16.8, -2.3]	1.33	**0.013 ***
CGI-I Irritability Domain (2) *Clinician-reported*	Total N = 26	-0.4 [-1.0, 0.2]	0.61	0.153
	Adolescent N = 20	-0.6 [-1.2, -0.0]	1.08	**0.036 ***

Note: Negative treatment deltas favor active treatment; effect size presented as an absolute value. Full Analysis set (FAS): The FAS includes all randomized subjects who received at least 1 dose of study drug after randomization and have DB Baseline and at least 1 post-DB Baseline assessment.

(1) ABC-I in the whole population was a key secondary endpoint evaluated in IRIS study; evaluation of change in the adolescent population was a prespecified endpoint

(2) CGI-I Global is included in labels for approved therapies.

ML-004 Has the Potential to Address Unmet Needs Through Established Development Path

01 ML-004 demonstrated clinically meaningful improvements in irritability in adolescents with moderate or greater baseline irritability across both caregiver- and clinician-rated scales

- ABC-I (effect size of 1.33, nominal p-value of 0.013)
- CGI-I irritability (effect size of 1.08, nominal p-value of 0.036)

02 ML-004 was generally well tolerated across all doses and age groups

- No drug-related severe or serious AEs
- Meaningful differentiation from standard of care atypical antipsychotics
  - No weight gain relative to placebo
  - No evidence of extrapyramidal symptoms
  - Low rates of fatigue / somnolence

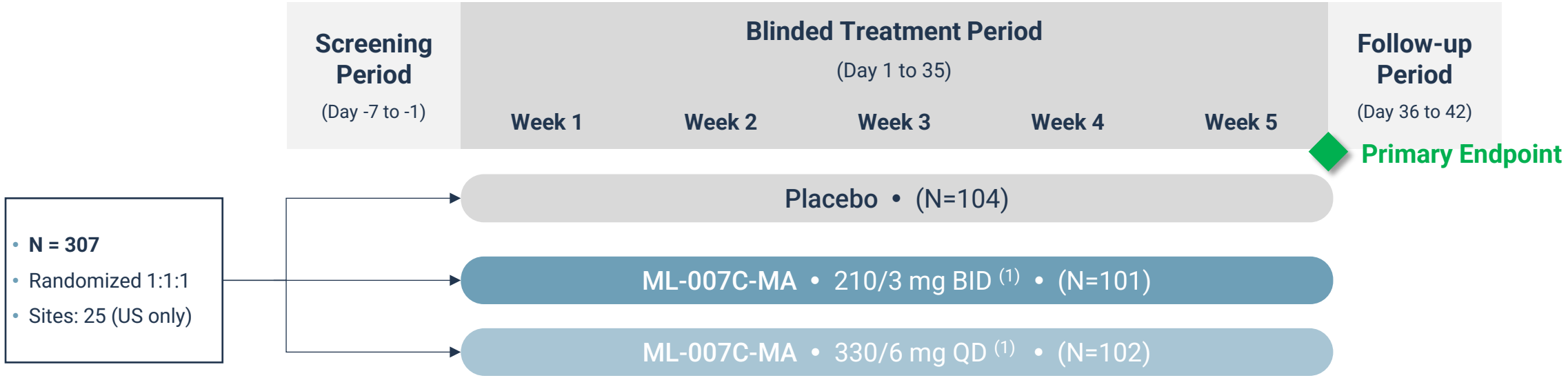
Data support potential development of ML-004 for irritability associated with ASD, an indication with high unmet need and an established regulatory path; next steps will be guided by upcoming regulatory interactions

Appendix

ZEPHYR Study Outline

Designed and Sized to Serve as a Registrational Study

ZEPHYR Schizophrenia Study



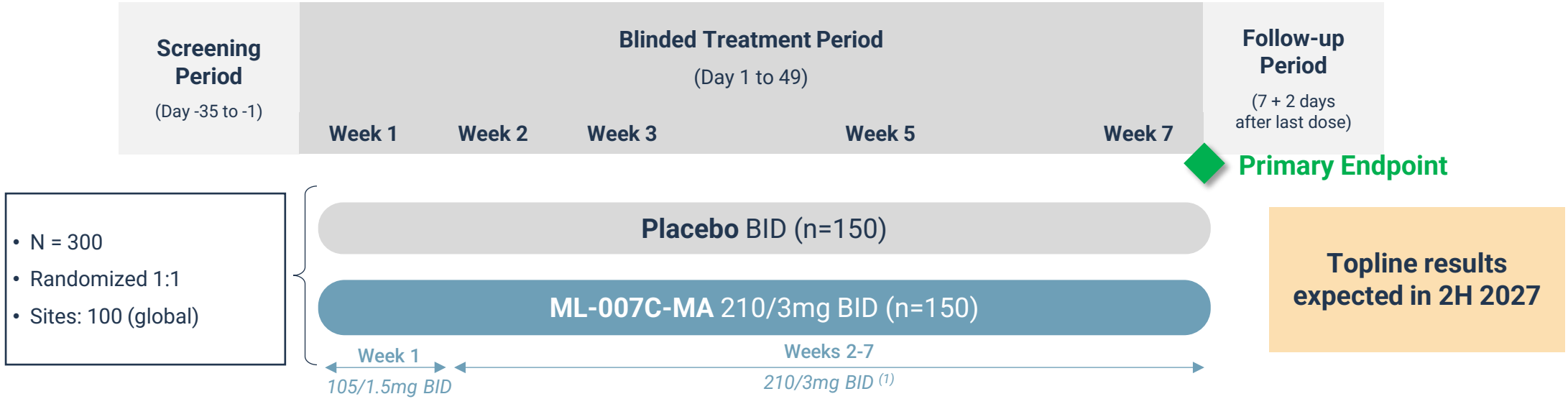
Study Population	• 18 to 64 years of age with diagnosis of schizophrenia with MINI • PANSS 80-120 at screening and baseline • Score ≥4 for two or more positive symptom items • CGI-S score ≥4 • Untreated or recent wash-out of antipsychotics	**Primary Endpoint**	• CFB PANSS Total Score at Week 5
		Key Secondary Endpoints	• CFB CGI-S at Week 5 • CFB PANSS positive Marder factor at Week 5 • CFB PANSS negative Marder factor at Week 5
		Other Secondary (Prespecified)	• CFB Cognitive Composite Score at Week 5 in the cognitively impaired at baseline subgroup

CFB = Change from baseline; MINI = Mini-International Neuropsychiatric Interview; QD = once-daily.
(1) Single-dose titration; reduction of dose permitted once between Week 1 to 3 to 165/3 mg BID or 270/6 mg QD

MapLight

VISTA Study Outline

Designed and Sized to Serve as a Registrational Study



Study Population

- 55 to 90 years of age
- Possible or probable Alzheimer's disease
- Psychotic symptoms for >2 months
- NPI-C H+D score of ≥6; and ≥2 on at least two items of either the H or D domain scores
- CGI-S score ≥4

Primary Endpoint

- CFB to Week 7 on the NPI-C H+D domain scores

Key Secondary Endpoints

- CFB to Week 7 on CGI-S score
- CFB to Week 7 on NPI-C A+A domain score in participants with moderate agitation at Baseline

NPI-C A+A = Neuropsychiatric Inventory Clinician, Agitation and Aggression; NPI-C H+D = Neuropsychiatric Inventory Clinician, Hallucinations and Delusions.

(1) Increase to the target dose of 210/3 mg BID at Week 1, unless the participant is experiencing tolerability issues that, in the investigator's opinion, would preclude a higher dose. Every effort should be made to increase to the target dose as soon as possible up until Week 3. One-time dose reduction to 105/1.5 mg allowed for tolerability.