MapLight

Corporate Presentation

May 14, 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 May 14, 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

Potential Best-in-Class Muscarinic Agonist

- Novel M_1/M_4 muscarinic agonist in combination with a peripheral antagonist
- Data supports potential differentiation on safety/tolerability, ease of use, and broad symptom improvement
- Ongoing Phase 2 trials in schizophrenia and ADP - designed to be adequate and well-controlled

Positioned to Deliver on Key Milestones

- Phase 2 topline results for ML-007C-MA in schizophrenia and ML-004 in ASD expected by mid-August 2026
- Strong financial position with ~$395M in cash and runway through 2027 (1)
- 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) Unaudited cash, cash equivalents, and investments of $395.2 million as of March 31, 2026.

Advancing a 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		**Topline results by mid-August 2026**
		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		**Topline results by mid-August 2026**
ML-009 GPR52 PAM	Indirect Pathway	Hyperactivity/Impulsivity					Complete IND-enabling studies in 2027
ML-055 Next-Gen M_1/M_4 agonist	Direct and Indirect Pathways	Neuropsychiatric Disorders					Nominate preclinical candidate in 2026
ML-021 M_4 antagonist	Direct Pathway	Parkinson's Disease					Finalize preclinical candidate in 2027

Potential in other indications being explored

Leveraging our versatile circuit-based discovery platform for ongoing pipeline expansion

GPR = G-protein-coupled receptor. PAC = peripherally acting anti-cholinergic. PAM = positive allosteric modulator.

MapLight

ML-007C-MA

Lead Asset in Development for Schizophrenia and ADP

Muscarinic Receptor Agonism is the First Novel MoA Approved for Treatment of Schizophrenia in Decades

SOC Antipsychotics
(Primarily D_2 Receptor Blockade)

Risk of serious long-term side effects

- × EPS, metabolic issues, weight gain, sedation
- × Boxed warning for increased mortality risk in elderly patients with DRP

Primarily treat only positive symptoms

- × Do not address negative or cognitive symptoms
- × ~30% of patients are treatment resistant and ~40-50% have inadequate response (1)

Significant Unmet Need

- ~1.6M treated for schizophrenia in US (2)
- ~70% discontinue treatment within 18 months (3)

Novel Muscarinic Class
(Modulate Acetylcholine)

Avoids serious long-term side effects associated with D2-antipsychotics

- ✓ No warnings for EPS, metabolic issues, sedation
- ✓ No boxed warning in elderly patients with DRP

Potential for comprehensive symptom improvement

- ✓ Demonstrated improvements in positive and negative symptoms and signal in cognitive symptoms
- ✓ Potential across multiple indications, including ADP, AD dementia, bipolar disorder, etc.

Global sales for antipsychotics and muscarinic classes projected to exceed $20B by 2032 (4)

AD = Alzheimer's disease; EPS = extrapyramidal symptoms; DRP = dementia-related psychosis.
(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) National Institute of Mental Health (NIMH).
(3) Lieberman et al., NEJM (2005). CATIE trial; all-cause discontinuation.
(4) Represents global sales estimates based on third-party market research sources, accessed November 2025.

MapLight

Prior Clinical Development Efforts Within Muscarinic Class Have Been Limited by Cholinergic AEs

Structural and Biological Constraints

- Broad peripheral expression of M_1 and M_4 receptors drives dose-limiting pro-cholinergic AEs
- High conservation of orthosteric binding sites limits receptor subtype selectivity approaches
- Cholinergic neuron loss in neurodegenerative disorders presents challenges for allosteric approaches

Historical Development Approaches and Challenges

Receptor Sub-Type Selective Approaches (M_1- or M_4 Agonist or PAM)	**Emraclidine** • Phase 1 • Healthy volunteers	• Moderate cardiovascular AEs at highest dose in SAD study (2)
	M_1 Selective PAMs	• Cholinergic toxicity constraining dose escalation (3)
Dual M_1/M_4 Agonist without Peripheral Antagonist	**Xanomeline** • Phase 2 • Alzheimer's disease	• High discontinuation rates (48-59%) despite TID dosing (1)
Dual M_1/M_4 Agonist in Combination with Peripheral Antagonist	**KarXT (Cobenfy)(4)** • Phase 1 (KAR-003) • Healthy adults	• Elevated rates of cholinergic AEs across dose cohorts • Tolerability issues at highest dose
	KarXT (Cobenfy)(5) • Phase 1 (KAR-030) • Healthy elderly	• Higher rate of AEs than previously reported despite TID dosing

Ach = acetylcholine; AE = adverse events; SAD = single ascending dose; TID = three times daily.

(1) Bodick et al, 1997: Effects of Xanomeline, a Selective Muscarinic Receptor Agonist, on Cognitive Function and Behavioral Symptoms in Alzheimer Disease.
(2) Cerevel presentation at SIRS 2021 conference.
(3) Alt et al, 2016: Evidence for Classical Cholinergic Toxicity Associated with Selective Activation of M1 Muscarinic Receptors.
(4) ASCP Annual Meeting, 2019 poster: Xanomeline plus trospium: A novel strategy to enhance pro-muscarinic efficacy and mitigate peripheral side effects.
(5) Cobenfy's FDA NDA review materials and USPTO IP filings.

Cobenfy's Approach is Challenged by Mismatched Peripheral Exposures of Agonist & Antagonist

Parameter[1][2]	Xanomeline *M_1/M_4 Agonist*	Trospium *Peripheral Antagonist*
Oral Bioavailability	~1%	~15%
Plasma Protein Binding	95%	80%
T_{max}	~2.0 hours	~0.7 hours
Coefficient of Variation	~94-107%	~88-94%
Fed vs. Fasted (C_{max})	0-30% higher	70-90% lower

Significant Intra- and Inter-patient Variability Results in PK Mismatch

- × **Excess agonist** → pro-cholinergic AEs (vomiting, nausea, diarrhea, etc.)
- × **Excess antagonist** → anti-cholinergic AEs (urinary retention, constipation, etc.)

Safety and Tolerability Challenges

High rates of both pro- and anti-cholinergic AEs

Inconvenient Dosing Frequency [3]

BID in schizophrenia

TID in ADP

Fasting Requirements

Likely contributes to the tolerability challenges reported in real-world settings

Titration Requirements [3]

3-8 days in schizophrenia – longer in real world usage

5 weeks in ADP

BID = twice daily; PK = pharmacokinetic.
(1) Cobenfy's FDA integrated review.
(2) KarXT USPTO IP filings; based on Day 7 of dosing at 100/20 BID and 125/40 BID in the Phase 1 MAD study in healthy volunteers (KAR-003).
(3) Based on publicly disclosed study designs for EMERGENT-1/2/3 trials in schizophrenia. Based on publicly disclosed study designs for ADEPT-1/2/4 trials in ADP.

ML-007C-MA: Our Novel M_1/M_4 Muscarinic Agonist

Significant Need for a Safer and More Convenient Treatment Option With Robust M_1/M_4 Activation

Strong Activation of Both M_1 & M_4 Receptors

+

Rational and Deliberate Clinical Strategy

+

Synchronized Agonist / Antagonist Exposure

Potential Areas of Differentiation

Safety and Tolerability

- Mostly mild and transient TEAEs
- Limited episodes of vomiting
- Low rates of anti-cholinergic TEAEs

Improved Ease of Use

- QD / BID dosing
- No fasting requirements
- Minimal titration required

Broad Symptom Improvement

- Robust M_1/M_4 agonism *in vitro*
- *In vivo* studies support potential for improvement across positive, negative and cognitive symptoms

QD = once daily; TEAE = treatment-emergent adverse event.

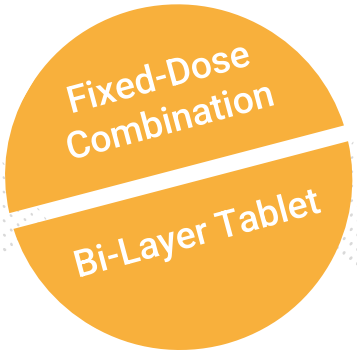
Deliberate Approach to Selection of Components Well Suited for a Fixed Dose Combination

ML-007

Novel M_1/M_4 Muscarinic Agonist

- ✓ Robust M_1 and M_4 agonism
- ✓ CNS penetrant
- ✓ High oral bioavailability
- ✓ Favorable physical/chemical properties
- ✓ Low DDI risk

ML-007C-MA



Broad IP coverage into 2040s (3)

Fesoterodine

Peripherally-Acting Muscarinic Antagonist

- ✓ Well characterized (1)
- ✓ Primarily peripherally restricted (2)
- ✓ High oral bioavailability
- ✓ Favorable physical/chemical properties
- ✓ Low DDI risk

Extensive preclinical and clinical development efforts to support dose optimization and selection

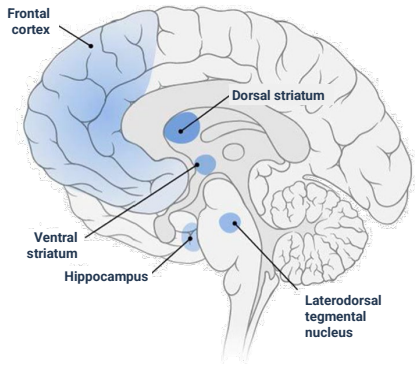
DDI = drug-drug interaction.
(1) Fesoterodine is indicated for the treatment of overactive bladder in adult patients with symptoms of urge urinary incontinence, urgency, and frequency.
(2) Minimal CNS penetration observed in preclinical studies, with low or undetectable CSF exposure across species, and no evidence of clinically relevant cognitive effects in humans.
(3) Intellectual property portfolio coverage based on latest-to-expire issued patents and provisional applications.

MapLight

Dual M_1 / M_4 Muscarinic Agonism Offers the Potential for Comprehensive Symptom Improvement

M_1 and M_4 Muscarinic Receptors' Complementary Role

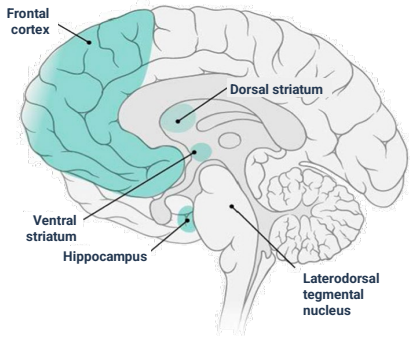
M_1



- Expressed in striatum, cortex, hippocampus and basal ganglia
- Modulate psychomotor activation via "**indirect pathway**"
- Central role in synaptic plasticity, learning and memory

Symptom Domains ›

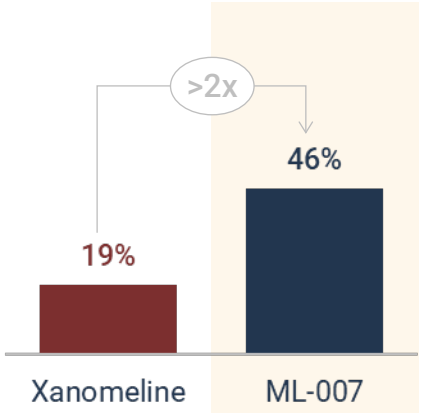
M_4

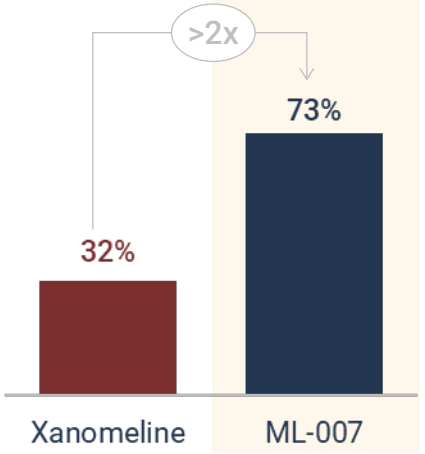


- Highest expression in striatum
- Regulate psychomotor activation via "**direct pathway**"

Symptom Domains ›

Relative Peak Intrinsic Activity (1)





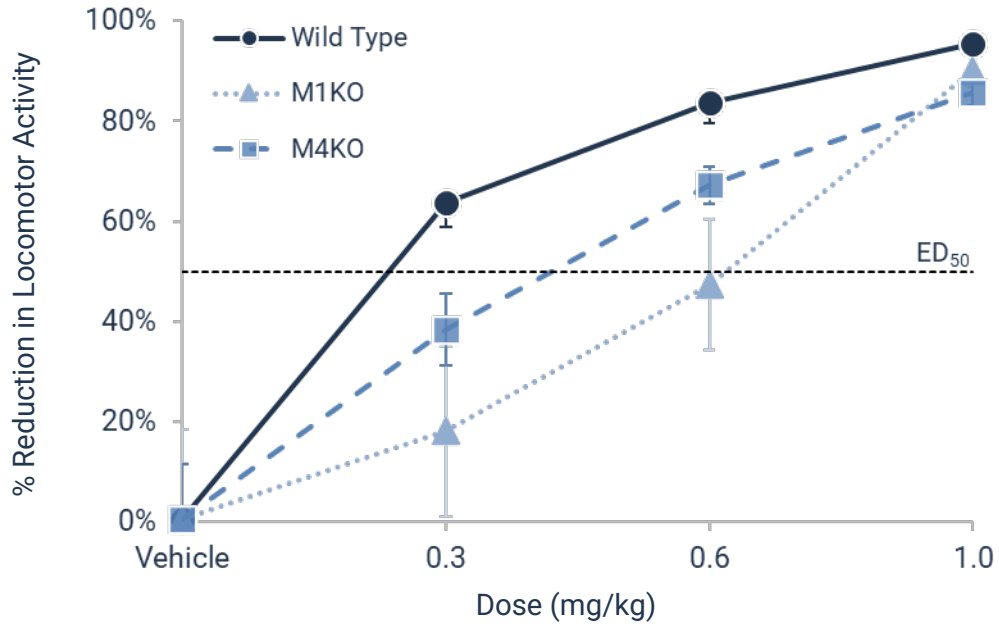
Source: Yohn SE et al (2022): Muscarinic acetylcholine receptors for psychotic disorders: bench-side to clinic.
(1) Represents data normalized to responses of control agonist, oxotremorine, in human GTPγS M_1 and M_4 in vitro assays.

MapLight

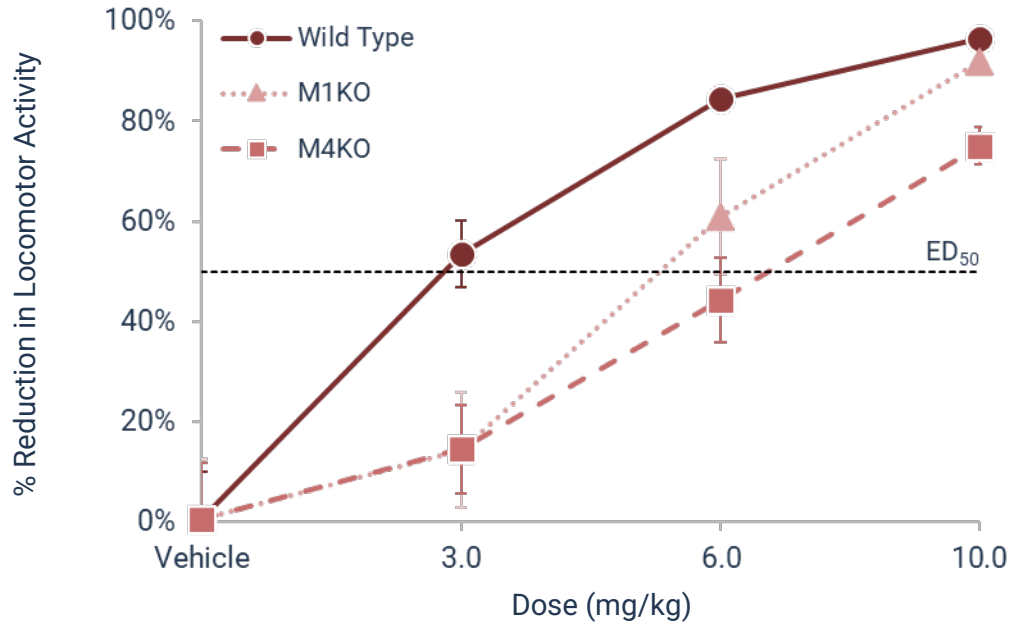
Agonism at Both M_1 and M_4 Receptors Required to Drive Robust Efficacy at Clinically Relevant Doses

Head-to-Head Pharmacodynamic Effects in AIH Models (1)

ML-007 Dose Response



Xanomeline Dose Response



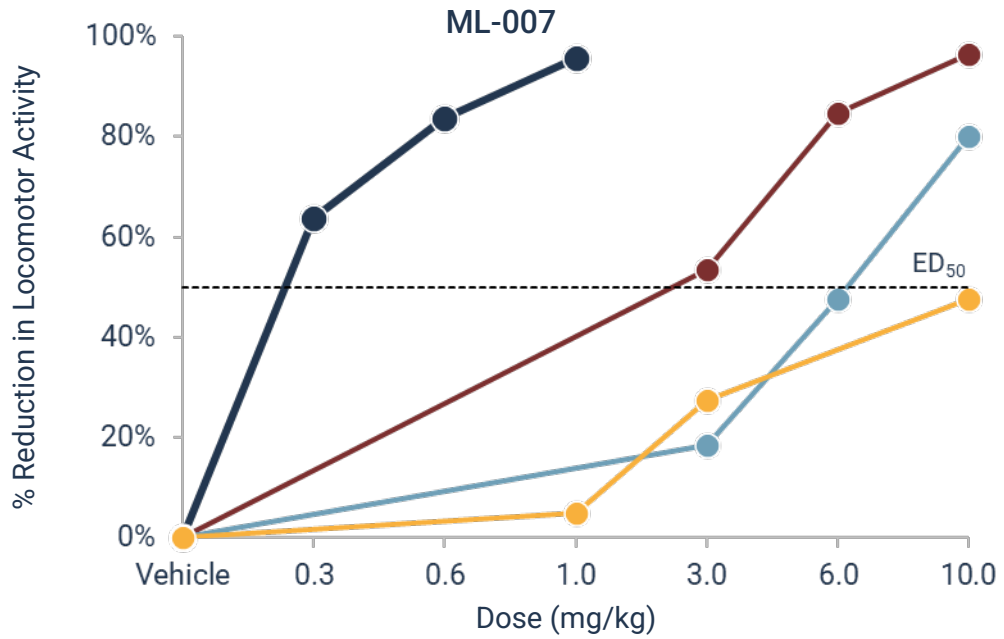
ML-007 Demonstrated >8x Greater Activity vs. Xanomeline Across M1KO, M4KO and WT Models (2)

AIH = Amphetamine-induced hyperlocomotion; ED_{50} = median effective dose; M1KO = M_1 knock-out; M4KO = M_4 knock-out; WT = wild type.
(1) Based on pharmacodynamic activity observed during 5-15 mins post-dosing.
(2) Represents ratios of ED_{50} dose for ML-007 vs. xanomeline in head-to-head preclinical models.

MapLight

ML-007 Demonstrated Robust, Dose-Dependent Activity Across Behavioral Models

Head-to-Head Pharmacodynamic Effects in AIH Models(1)



Potency by Dose (2)

- >10x vs. xanomeline
- >20x vs. emraclidine
- >35x vs. direclidine

Consistent Effects Demonstrated Across *In Vivo* Models

- ✓ PCP-Induced Hyperlocomotion
- ✓ Conditioned Avoidance Response
- ✓ Resident Intruder
- ✓ Chronic Haloperidol Model of TD
- ✓ Spatial & Social Memory in AD Model
- ✓ Dyskinesia in MPTP-Treated NHPs

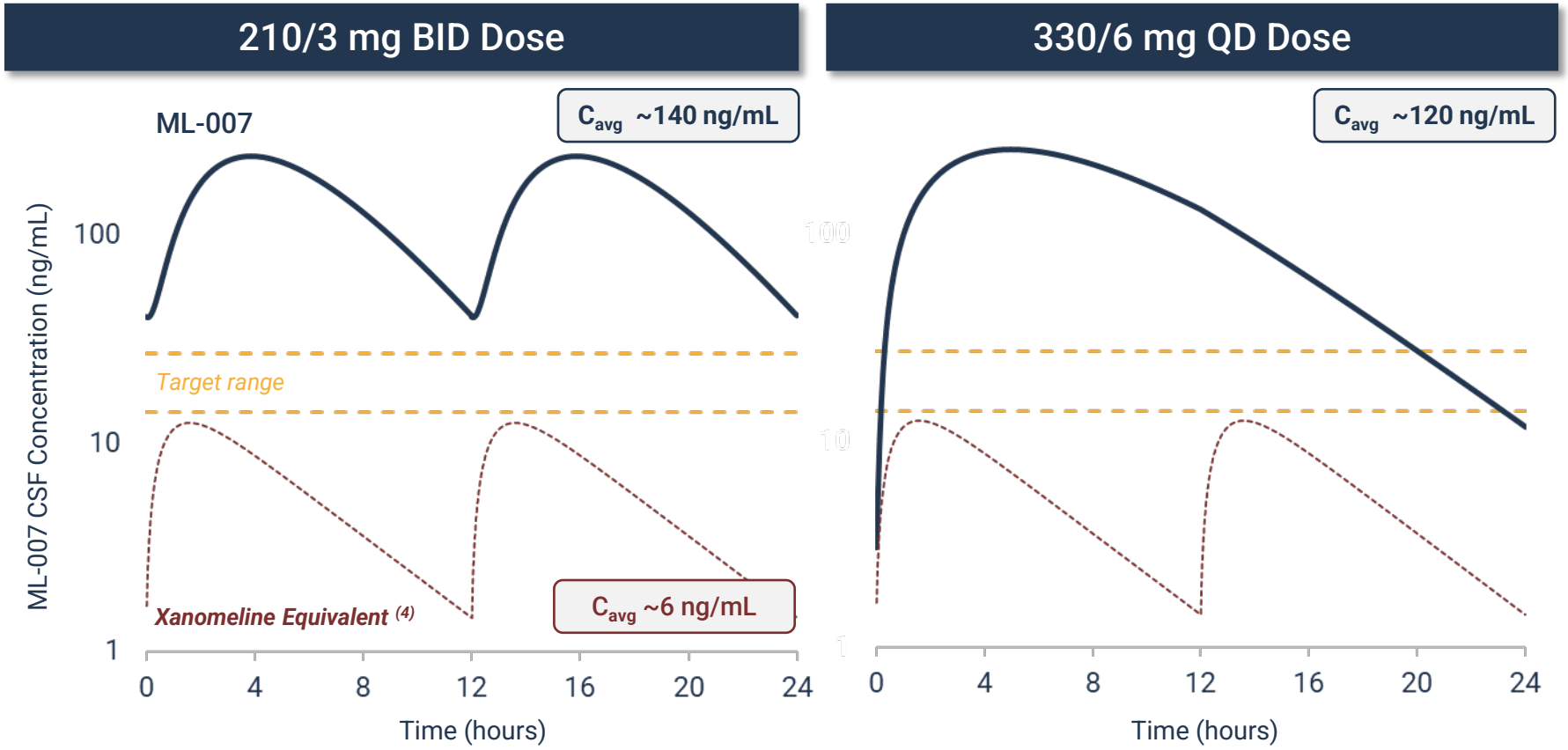
PK/PD correlation informed selection of a "conservative" CSF target exposure range

CSF = cerebrospinal fluid; LID = L-DOPA–induced dyskinesia; NHP = non-human primates; PCP = phencyclidine; PK/PD = pharmacokinetics/pharmacodynamics; TD = tardive dyskinesia.
(1) Based on pharmacodynamic activity observed during 5-15 mins post-dosing.
(2) Represents ratios of ED_{50} dose for ML-007 vs. comparator in head-to-head preclinical models.

MapLight

CSF Exposures Achieved in Study 013 at the Doses Selected for Phase 2 Exceeded Conservative Targets

Modeled Steady State CSF Concentrations Based on Phase 1 Sampling (1)



Reference Concentrations

***In Vitro* Assays (2)**

- M_1 EC_{50} ~16 ng/mL
- M_4 EC_{50} ~27 ng/ml

***In Vivo* Models (3)**

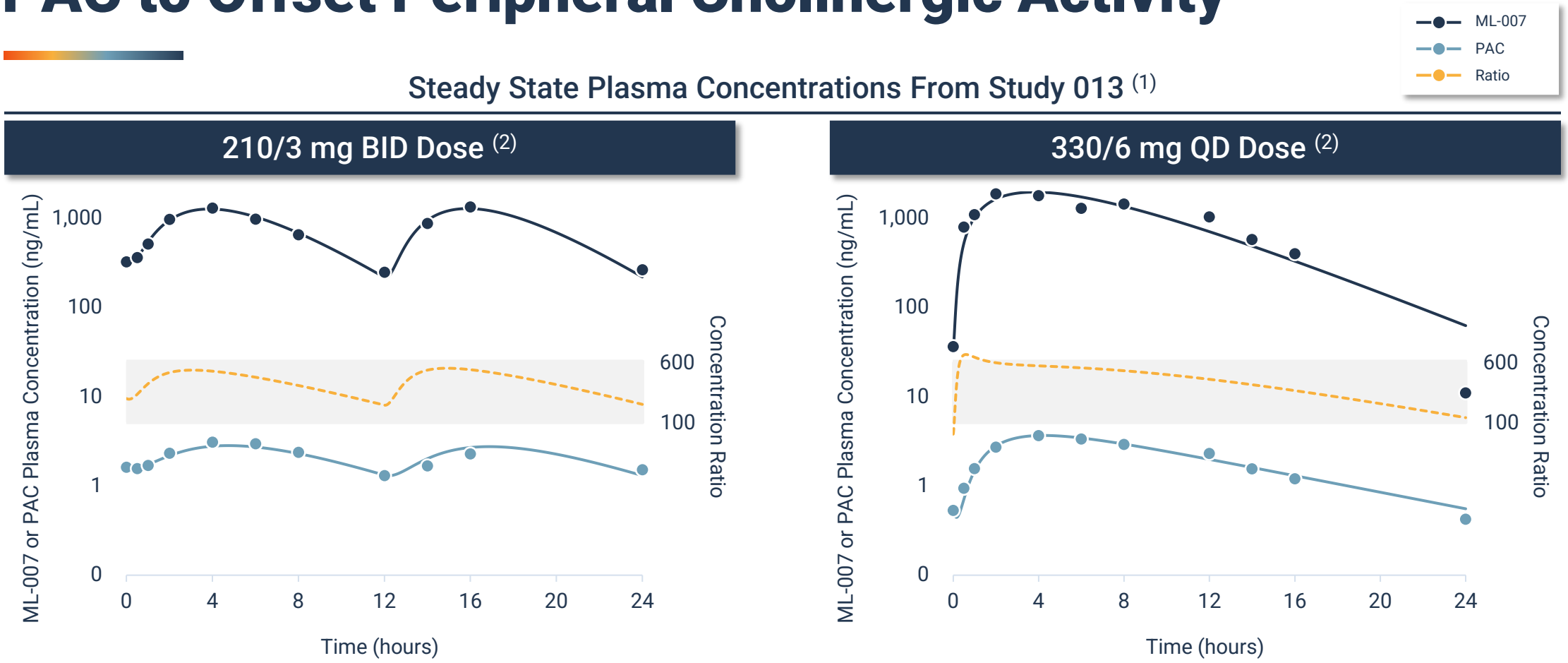
- AIH ED_{50} ~14 ng/mL
- PCP ED_{50} ~27 ng/mL

Dose notation refers to the co-formulated combination of ML-007 and PAC (fesoterodine). For example, 210/3 mg indicates 210 mg of ML-007 and 3 mg of fesoterodine .
C_{avg} = average concentration; C_{max} = maximum concentration; EC_{50} = median effective concentration.
(1) ML-007 lines represents modeled estimates for CSF exposures based on LP sampling conducted during Study 013.
(2) EC50 estimates for M_1 based on IP1 levels measured using an IPOne assay and M_4 based on cAMP levels measured using a GloSensor assay.
(3) CSF exposure-response was conducted across multiple preclinical animal models which defined a target efficacious range of 14–27 ng/mL (AIH and PCP models, respectively).
(4) Represents the ML-007 equivalent CSF concentration estimate of xanomeline (Cobenfy) based on reported median Cavg and Cmax human plasma concentrations at steady state of ~5 ng/mL and ~9 ng/mL, respectively, and 1% CSF:plasma ratio based on NHPs. These estimates rely on Company's extrapolations as xanomeline's CSF concentrations have not been directly reported.

MapLight

Close Matching of Plasma Exposures for ML-007 & PAC to Offset Peripheral Cholinergic Activity

Steady State Plasma Concentrations From Study 013 (1)



Low PK Variability Observed at Target Doses – CV of ~30% (3)

CV = coefficient of variation.
(1) Data points show geometric mean observed data from Study 013; lines represent modeled values.
(2) Observations after 7 days of maintenance dosing. PAC concentration of active metabolite 5-HMT.
(3) Calculated using last maintenance Day 7 dose data.

MapLight

ML-007C-MA is Well Positioned to be Differentiated Across Multiple Dimensions

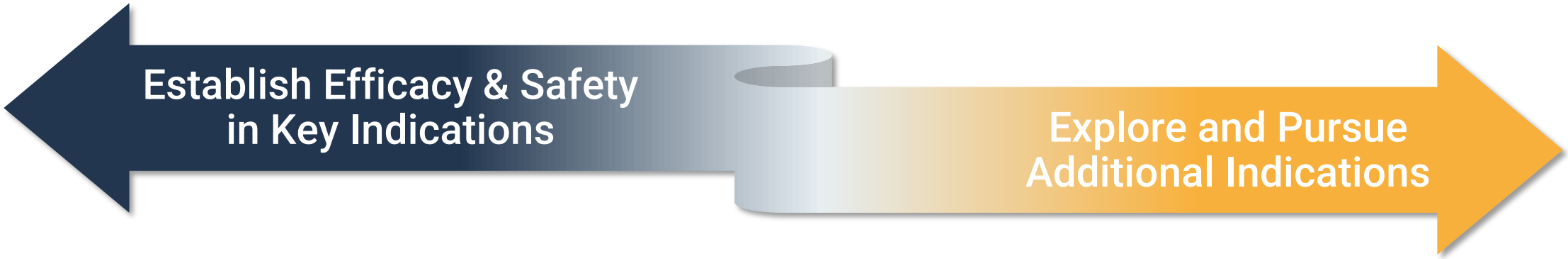
Program *Mechanism of Action*	ML-007C-MA *M_1/M_4 Agonist + Peripheral Antagonist*	Cobenfy (KarXT) (1) *M_1/M_4 Agonist + Peripheral Antagonist*	Emraclidine (2) *M_4 PAM*	Direclidine (3) *M_4 Agonist*
Tolerability	Demonstrated in Phase 1			
Dosing Convenience	Demonstrated in Phase 1			
Efficacy in RCTs	Ongoing Phase 2			
Cognitive Improvement	Robust M_1 agonism		No mechanistic rationale	

Significant opportunity for a safer and more convenient treatment option with robust M_1/M_4 activation

RCT = randomized controlled trials.
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 FDA prescribing information.
(2) Based on results from the Phase 2 EMPOWER-1 and EMPOWER-2 clinical trials, which failed to demonstrate a statistically significant improvement.
(3) 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

Our Development Strategy for ML-007C-MA



- Parallel development in schizophrenia and ADP
- Ongoing Phase 2 studies (ZEPHYR and VISTA) designed to be adequate and well controlled
- Data-driven clinical design and execution strategy designed to mitigate placebo response
- Prioritization of key registration-enabling activities

- Broad potential in multiple indications, including:
  - Cognition in Alzheimer's disease
  - Parkinson's disease psychosis / Lewy Body
  - Bipolar disorder
  - AD agitation
  - Autism spectrum disorder

MapLight

ML-007C-MA

Phase 1 Studies

Rational and Deliberate Clinical Development Strategy to Establish a Differentiated Profile

Four Phase 1 Studies Completed

270 Subjects Enrolled – Healthy Adults and Elderly

1,500+ Doses of '007 Administered

Study 001

Immediate Release

N = 58

- Dose-dependent target engagement with ML-007
- Achieved single agent MTD
- Pairing with fesoterodine blocked peripheral cholinergic effects

Study 011

Immediate Release

N = 106

- Wide range of ML-007 to fesoterodine ratios evaluated across 13 cohorts
- Identified optimal ratios to balance pro- and anti-cholinergic peripheral effects

Study 012

Co-Administered Extended Release

N = 24

- Close matching of ML-007 and fesoterodine peripheral exposures
- Low rates of TEAEs observed that were mild and transient in nature
- Exposure profile supported potential BID / QD dosing

Study 013

Co-Formulated Extended Release

N = 82

- First study that evaluated co-formulated bi-layer tablet
- Four cohort design, included two cohorts with multi-day dosing paradigm
- Evaluated food effects, titration and dosing in healthy adults and healthy elderly
- Finalized study design of Phase 2 trials in schizophrenia & ADP

MTD = maximum tolerated dose.

Study 013: Safety and Tolerability in Healthy Adults

1-4 Dose Titration + 7 Days at Target Dose

- Generally favorable safety and tolerability
- Consistent with profile previously observed at similar doses
- Mostly mild and transient TEAEs
- Low rates of moderate TEAEs
- Low rates of anticholinergic TEAEs at target doses
- No clinically meaningful changes in mean blood pressure or ECG parameters
- No liver-related findings

	Placebo Combined (N=8)	165/3 mg BID (N=6)	210/3 mg BID (N=6)	270/6 mg QD (N=6)	330/6 mg QD (N=6)
Subjects With Any TEAE [1]	2 (25%)	6 (100%)	3 (50%)	3 (50%)	4 (67%)
Cholinergic Classification – Subjects (%)					
Procholinergic	0 (0%)	4 (67%)	3 (50%)	2 (33%)	4 (67%)
Anticholinergic	1 (13%)	3 (50%)	0 (0%)	1 (17%)	0 (0%)
Other	1 (13%)	5 (83%)	3 (50%)	3 (50%)	3 (50%)
% of TEAEs by Severity					
Mild	100%	100%	95%	93%	86%
Moderate	0%	0%	5%	7%	14%
Severe	0%	0%	0%	0%	0%

Phase 2 Target Doses for Schizophrenia

ECG = electrocardiogram.
(1) AEs include events occurring after administration of target dose until 24 hours after last dose. Procedural AEs are excluded. Reported as N (%).

MapLight

Study 013: Safety and Tolerability in Healthy Adults

Target Doses Selected for Phase 2 Schizophrenia Clinical Trial

	Placebo Combined (N = 8) [2]	210/3 mg BID (N = 6)	330/6 mg QD (N = 6) [3]
Subjects With Any TEAE [1]	2 (25%)	3 (50%)	4 (67%)
Mild	2 (25%)	3 (50%)	4 (67%)
Moderate [3]	0 (0%)	1 (17%)	2 (33%)
Severe	0	0	0
Most Common TEAEs (>1 Subject in any Dose Group)			
Chills	0	0	2 (33%)
Hyperhidrosis	0	1 (17%)	2 (33%)
Nausea	0	3 (50%)	3 (50%)
Dizziness	0	3 (50%)	2 (33%)
Dyspepsia	0	0	2 (33%)

- Most TEAEs (~91%) were mild and transient
- Low rates of moderate TEAEs – nausea (n=1), dyspepsia (n=2)
- No severe or serious TEAEs

- Nausea AEs were mostly mild and self-limited with no episodes of vomiting
- No episodes of constipation
- Dizziness AEs were mild and not associated with orthostatic changes

- **KarXT Phase 1 study in healthy adults (KAR-003) reported high rates of pro- and anti-cholinergic AEs across dosing cohorts**
  - **In the 100/20 mg cohort (lower approved dose), AEs were reported in 67% of subjects which included 28% vomiting**

(1) AEs include events occurring after administration of target dose until 24 hours after last dose. Procedural AEs are excluded. Reported as N (%).
(2) Placebo arm reported three AEs, including two episodes of headache.
(3) One 330/6 mg participant discontinued; after mild AEs and one moderate AE (dyspepsia), the investigator supported continuation, but the participant withdrew consent.

MapLight

Study 013: Safety and Tolerability in Healthy Elderly

2-7 Day Titration + 7 Days at Target Dose

- Generally favorable safety and tolerability with BID dosing
- Highest dose given QD was not well tolerated – potential to explore lower doses in future
- Mostly mild and transient TEAEs
- Low rates of anticholinergic TEAEs
- No clinically meaningful changes in mean blood pressure or ECG parameters
- No liver-related findings

	Placebo Combined (N=7) (2)	165/3 mg BID (with 2d titration) (N=6)	210/3 mg BID (with 2-7d titration) (N=11) (3)	330/6 mg QD (with 7d titration) (N=6) (4)
Subjects with Any TEAE (1)	5 (71%)	4 (67%)	8 (73%)	6 (100%)
Cholinergic Classification – Subjects (%)				
Procholinergic	1 (14%)	2 (33%)	6 (55%)	6 (100%)
Anticholinergic	1 (14%)	1 (17%)	4 (36%)	0
Other	3 (43%)	3 (50%)	8 (73%)	6 (100%)
% of TEAEs by Severity				
Mild	100%	100%	93%	72%
Moderate (3)	0%	0%	7%	28%
Severe	0%	0%	0%	0%

Phase 2 Target Dose for ADP

(1) AEs include events occurring after administration of target dose until 24 hours after last dose. Procedural AEs are excluded. Reported as N (%).
(2) One participant (placebo) discontinued from the study due to an AE during titration; one participant (placebo) had an AE during maintenance dosing that led to study drug withdrawal.
(3) Two participants had their dose reduced to 165/3 mg BID after experiencing AEs; one additional participant was discontinued from the study for non-compliance with clinic rules.
(4) Four participants had AEs that led to withdrawal of study drug and one additional participant had their dose reduced to 270/6 mg QD due to AEs.

MapLight

Study 013: Safety and Tolerability in Healthy Elderly

Target Dose Selected for Phase 2 ADP Clinical Trial

	Placebo Combined N = 7 (2)	210/3 mg BID (with 2-7d titration) N = 11 (2)
Subjects with Any TEAE (1)	5 (71%)	8 (73%)
Mild	5 (71%)	8 (73%)
Moderate	0	2 (18%)
Severe	0	0
Most Common TEAEs (>2 Subjects)		
Hyperhidrosis	0	3 (27%)
Nausea	0	3 (27%)
Dizziness	1 (14%)	3 (27%)
Headache	0	4 (36%)
Tremor	0	3 (27%)

- Most TEAEs (~93%) were mild and transient
- Low rates of moderate TEAEs
- No serious or severe TEAEs

- Limited episodes of vomiting (n=1) or constipation (n=1)
- No episodes of urinary retention

KarXT Phase 1 study in healthy elderly volunteers (KAR-030) reported 47% of participants had >=1 moderate AEs related to study drug (vs. 8% pbo), with higher rates of cholinergic AEs than previously reported in non-elderly

(1) AEs include events occurring after administration of target dose until 24 hours after last dose. Procedural AEs are excluded. Reported as N (%).
(2) Two participants discontinued study drug (placebo) due to AEs. Two participants on 210/3 mg BID dose reduced to 165/3 mg BID after experiencing AEs.

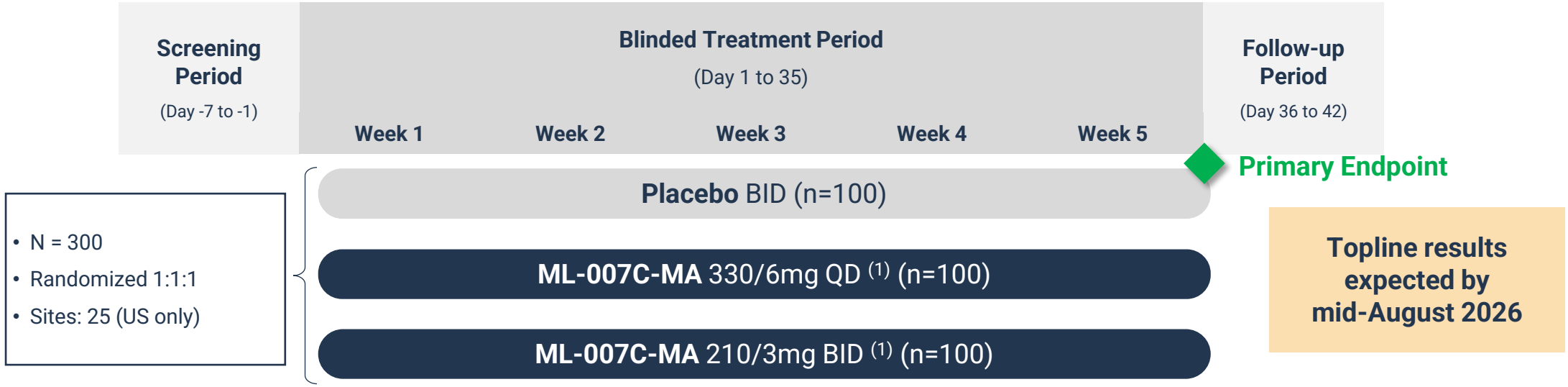
MapLight

MapLight

ML-007C-MA

Phase 2 Studies

ZEPHYR Schizophrenia Study Phase 2 Study Design in Schizophrenia



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 at Week 5

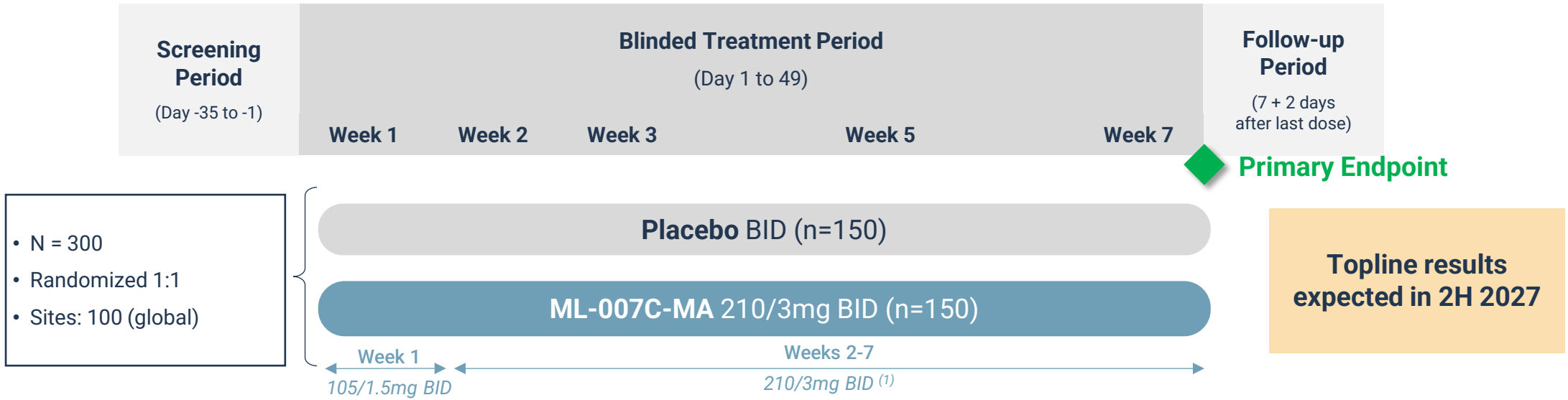
Key Secondary Endpoints

- CFB CGI-S at Week 5
- CFB PANSS positive Marder factor at Week 5
- CFB PANSS negative Marder factor at Week 5

CFB = Change from baseline, CGI-S = Clinical Global Impression of Severity; MINI = Mini-International Neuropsychiatric Interview; PANSS = Positive and Negative Syndrome Scale.
(1) Single dose titration; flexibly dosed with down-titration permitted once between Week 1 to 3 to 270/6mg QD or 165/3mg BID.

MapLight

Phase 2 Study Design in ADP



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.

Strategies to Mitigate Placebo Response in Ongoing Phase 2 Schizophrenia Study

Trial Design

- Limited # of US-only sites
- Limited # of participants
- Conservative enrollment targets
- Moderate-to-severe baseline symptom requirements

Trial Execution

- Rigorous site and investigator selection
- Robust eligibility and duplicate patient controls
- Regular placebo response training of site, staff, and patients

Trial Oversight

- In-house site relationships, monitoring, and data quality oversight
- Independent central review and regular blinded data analyses
- CRO selection

Similar Strategies Employed in the Ongoing Phase 2 VISTA Study for ADP

CRO = contract research organization.

ML-007C-MA: Potential Best-in-Class Muscarinic Agonist

Rational Development Approach	Designed to achieve robust M_1/M_4 activation in combination with a synchronized peripheral antagonist
Simplified Patient Experience	Potentially favorable tolerability profile with convenient dosing, no fasting requirements, and minimal titration
Potential Symptom Improvement	Strong agonism at both M_1 and M_4 offers the potential for improvement across key symptom domains
Focused Development Strategy	Parallel development in schizophrenia and ADP, with Phase 2 studies designed to be adequate and well-controlled
Positioned to Deliver on Key Milestones	Near-term clinical readouts supported by a strong balance sheet and execution track record

MapLight

ML-004

Autism Spectrum Disorder (ASD)

ML-004: Potential Treatment of Social Communication Deficits and Irritability in ASD Patients

ASD Overview

- Core symptoms:
  - Impaired social communication
  - Restricted, repetitive thoughts and behaviors
- Comorbid neurobehavioral symptoms include:
  - Irritability and aggression (in 25% of ASD patients)
  - Hyperactivity, mood lability
- Affects ~1.8M children & adolescents and >5M adults in US

Unmet Medical Need

- No FDA approved treatments for core symptoms of ASD
- Only widely accepted intervention is long-term behavioral therapy
- Off label usage of ADHD medications, SSRIs, SNRIs, and supplements
- Two atypical antipsychotics approved for ASD-associated irritability
  - Risk of serious side effects
  - Ineffective in treating core social features

ML-004 Potential

- Dysregulated serotonin signaling implicated in ASD pathology
- ML-004 – novel IR/ER oral formulation of zolmitriptan (5-$HT_{1B/1D}$ agonist)(1)
- Safety, tolerability and pharmacokinetics evaluated in Phase 1 trials
- Ongoing Phase 2 IRIS trial to evaluate efficacy and safety
  - Topline results expected by mid-August 2026

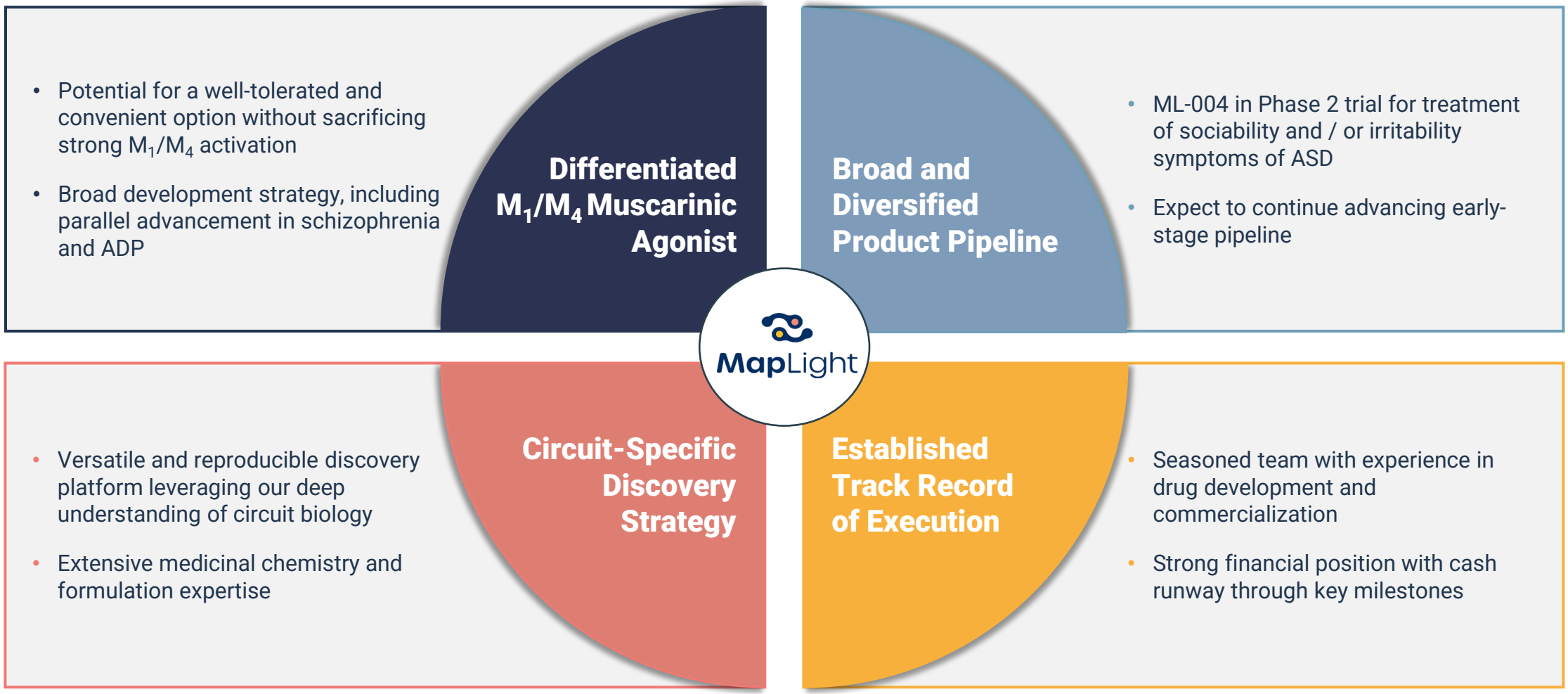
ADHD = attention-deficit/hyperactivity disorder; SNRI = serotonin-norepinephrine reuptake inhibitors; SSRI = selective serotonin reuptake inhibitors.
Source: US CDC prevalence estimates.
(1) Zolmitriptan approved for acute treatment of migraines.

Phase 2 Study Design

- Multi-center, randomized, double-blind, placebo-controlled trial
- **Randomized approximately 160 subjects with ASD**
  - Adolescent (age 12-17) and adult (age 18-45)
- Flexible dosing paradigm, with target maintenance dose of 48mg and 72mg
- **Primary Endpoint:**
  - ABI, Social Communication Domain Score
  - Change vs. baseline assessed after 12 weeks of maintenance dosing
- **Secondary Endpoint:**
  - Change in ABC-I score vs. baseline for patients with moderate or greater irritability score at baseline
  - Other secondary and exploratory endpoints
- **Topline results expected by mid-August 2026**

ABI - Autism Behavior Inventory, ABC-I - Aberrant Behavior Checklist-Irritability.

Corporate Summary



- Potential for a well-tolerated and convenient option without sacrificing strong M_1/M_4 activation
- Broad development strategy, including parallel advancement in schizophrenia and ADP

- ML-004 in Phase 2 trial for treatment of sociability and / or irritability symptoms of ASD
- Expect to continue advancing early-stage pipeline

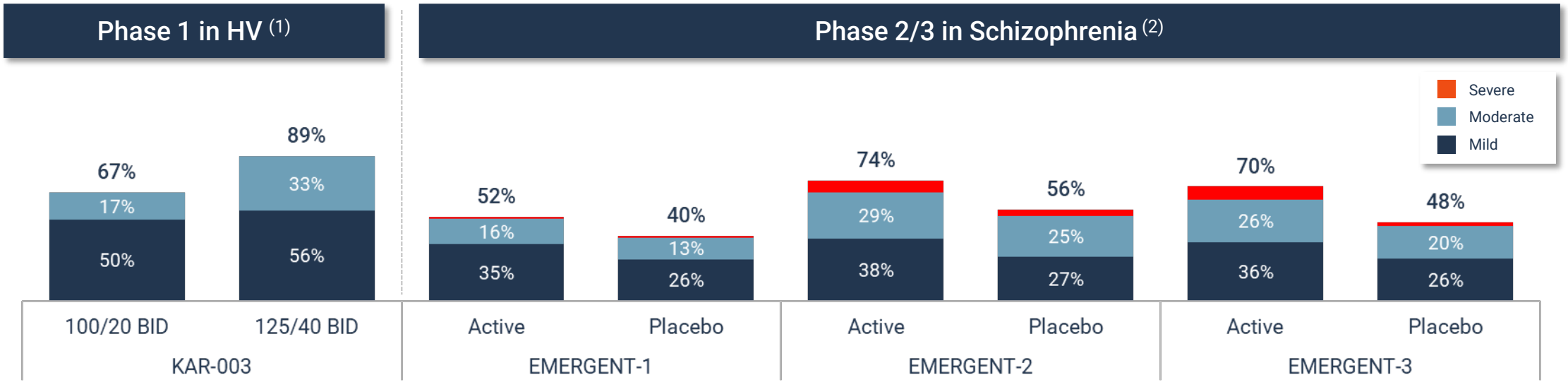
- Versatile and reproducible discovery platform leveraging our deep understanding of circuit biology
- Extensive medicinal chemistry and formulation expertise

- Seasoned team with experience in drug development and commercialization
- Strong financial position with cash runway through key milestones

Appendix

KarXT: Translation of Tolerability Profile From Healthy Volunteers to Schizophrenia Patients

% of Subjects with TEAEs – Represents Highest Severity



Generally consistent or better tolerability profile in clinical trials with schizophrenia patients compared to healthy volunteers

- Similar or lower overall severity observed in Phase 2/3 vs. Phase 1 HV
- Types of AEs and % of moderate AEs show high translatability from healthy subjects to schizophrenia patients
- Discontinuation rate of ~47–72% reported in 52-week OLE studies (3)

RWE suggests a more challenging tolerability profile despite longer titration, lower doses, and pharmacological intervention (4)

- ~18% of patients at 125/30 mg dose; majority at 100/20 mg dose
- 64% and 37% of patients experienced nausea and vomiting, respectively
- Prophylactic or as needed antiemetic usage in ~65% of patients

HV = healthy volunteers; RWE = real-world evidence. OLE = open-label extension.
(1) "Xanomeline plus trospium: A novel strategy to enhance pro-muscarinic efficacy and mitigate peripheral side effects" poster presented at ASCP 2019.
(2) Cobenfy's FDA NDA Review.
(3) Cobenfy's FDA integrated review (KAR-011 and KAR-008, respectively).
(4) Kutz et al, 2025 poster presented at Psych Congress – Retrospective Analysis of Real-World Transition Strategies for Xanomeline and Trospium Chloride in Adult Patients with Schizophrenia.