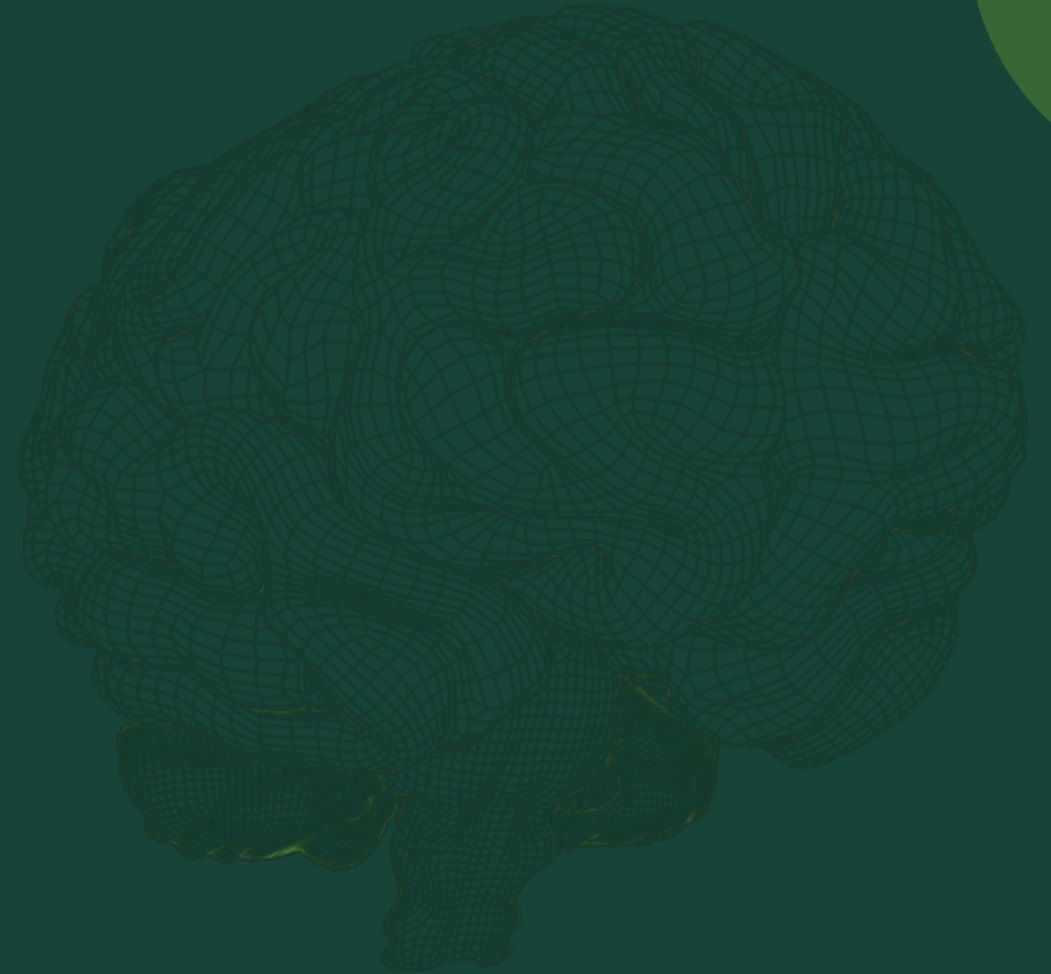


RAP-219 Phase 2 in Bipolar Mania Topline Results

Webcast Presentation
OCTOBER 20, 2026



Disclaimer

This presentation contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, each as amended. The words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, but are not limited to, express or implied statements regarding: the clinical development of RAP-219 for the treatment of focal onset seizures, primary generalized tonic-clonic seizures, bipolar mania and peripheral neuropathic pain, including the initiation, timing, progress and results of the ongoing, planned and future clinical trials; expectations for the efficacy, tolerability, and commercial potential of RAP-219; the potential multi-billion dollar market opportunity for RAP-219 in focal onset seizures, primary generalized tonic-clonic seizures and bipolar mania, if approved; expectations for the development of a long-acting injectable formulation of RAP-219; the potential of the Company's RAP technology platform; the achievement of any milestones in connection with the Tenacia collaboration; and expectations for the Company's uses of capital, including its cash runway expectations into the second half of 2029. Forward-looking statements are based on management's current expectations and are subject to risks and uncertainties that could negatively affect the Company's business, operating results, financial condition and stock value. Factors that could cause actual results to differ materially from those currently anticipated include: risks relating to the Company's research and development activities; risks relating to the Company's ability to execute on its strategy, including obtaining the requisite regulatory approvals on the expected timelines, if at all; uncertainties relating to preclinical and clinical development activities; risks relating to the Company's dependence on third parties to conduct clinical trials, manufacture its product candidates and develop, commercialize its product candidates, if approved, and more; risks relating to the Company's ability to attract, integrate and retain key personnel; risks relating to the Company's business operations; risks relating to the Company's financial condition and need for substantial additional funds in order to complete development activities and commercialize a product candidate, if approved; risks relating to regulatory developments and approval processes of the U.S. Food and Drug Administration and comparable foreign regulatory authorities; risks relating to establishing, defending and maintaining the Company's intellectual property protections; and risks related to the competitive landscape for the Company's product candidates; as well as other risks described in "Risk Factors" in the Company's Annual Report on Form 10-K and most recent Quarterly Report on Form 10-Q, as well as discussions of potential risks, uncertainties, and other important factors in the Company's subsequent filings with the Securities and Exchange Commission. Any forward-looking statements represent the Company's views only as of today and should not be relied upon as representing its views as of any subsequent date. The Company expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in its expectations or any changes in events, conditions or circumstances on which any such statement is based, except as required by law, and claims the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

Agenda

- 01** — **Company and RAP-219 Overview**
Abe Ceesay, Chief Executive Officer
- 02** — **Bipolar Mania Phase 2 Trial Topline Results**
Jeffrey Sevigny, MD, Chief Medical Officer
- 03** — **KOL Perspective**
Gary Sachs, MD, Founding Director, Bipolar Clinic and Research Program, Massachusetts General Hospital; Associate Clinical Professor of Psychiatry, Harvard Medical School
- 04** — **Near-term Catalysts and Financial Overview**
Troy Ignelzi, Chief Financial Officer
- 05** — **Closing Remarks**
Abe Ceesay, Chief Executive Officer
- 06** — **Q&A**

Company and RAP-219 Overview



Abe Ceesay
Chief Executive Officer, Rapport

Phase 2 results support advancing RAP-219 to Phase 3 in bipolar mania

Statistically significant improvement in mania symptoms

- ✓ Met primary endpoint: statistically significant YMRS reduction vs placebo
- ✓ Greater improvement on all YMRS single-item scores with RAP-219 vs placebo; key items achieving nominal significance
- ✓ Met key secondary endpoint: statistically significant improvement in severity of mania

Well tolerated

- ✓ All TEAEs mild or moderate; incidence was similar to placebo
- ✓ Low discontinuation rate due to AEs
- ✓ Differentiated tolerability profile

Phase 2 data supports advancing RAP-219 to Phase 3

RAP-219 circuit-selective approach to bipolar mania

Targets glutamatergic hyperactivity in cortico-limbic networks

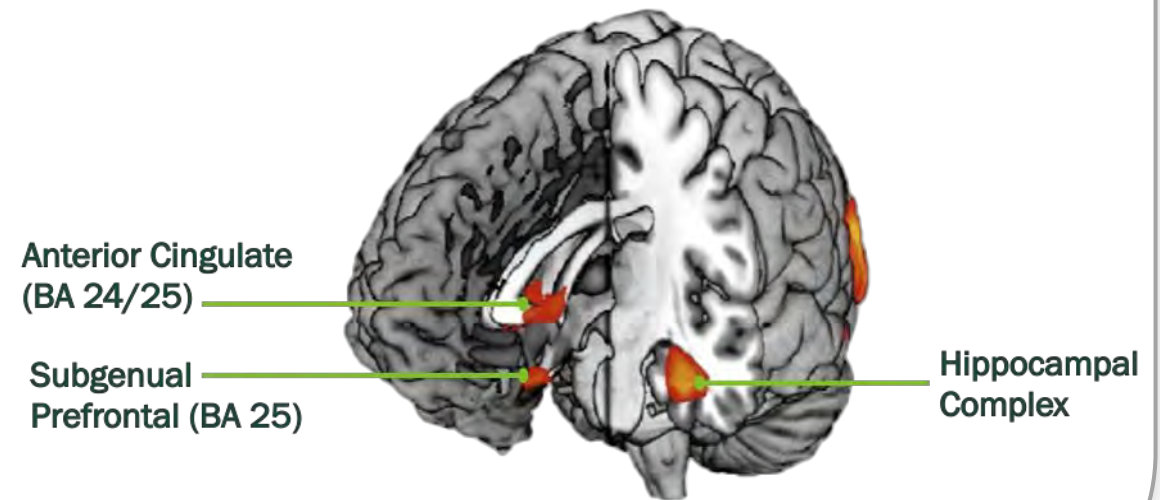
Bipolar mania is characterized by **increased glutamate levels and hypermetabolism** in cortico-limbic networks^{a,b,c}

Glutamate signaling is primarily **mediated by AMPA receptors**, which accounts for most fast excitatory transmission in the brain^d

RAP-219 selectively modulates TARPγ8-dependent AMPA receptor activity, potentially reducing excitatory glutamatergic drive in limbic neuronal populations that correspond to manic network hyperactivity

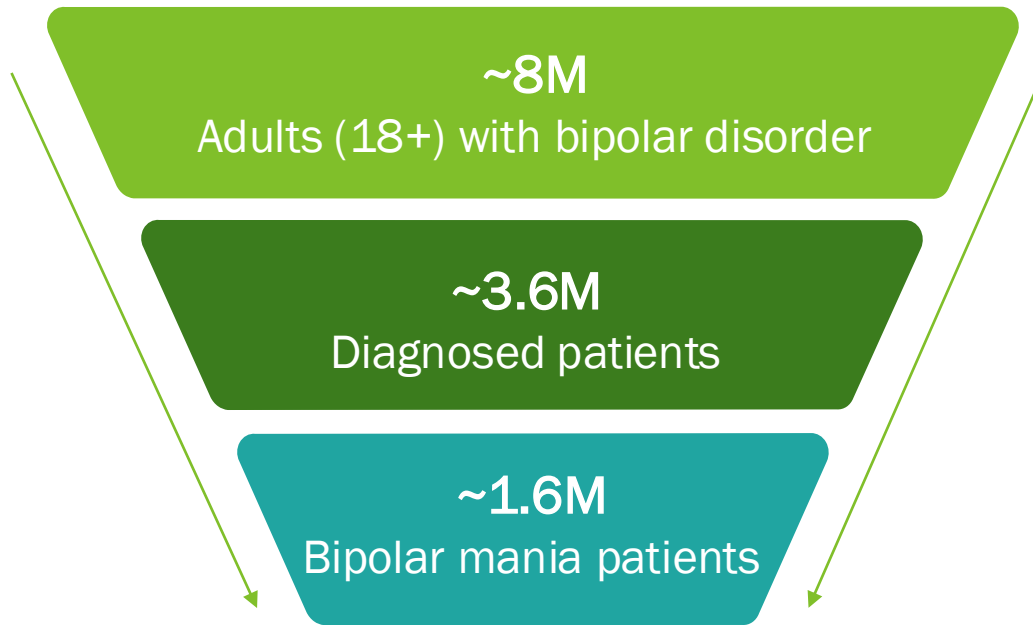
Lithium, valproate, and lamotrigine - **approved therapies for bipolar** - act in part by attenuating glutamatergic transmission, including reducing glutamate release and downregulating AMPA receptor function^{e,f}

Increased Cerebral Metabolism in Manic Patients Relative to Healthy Controls

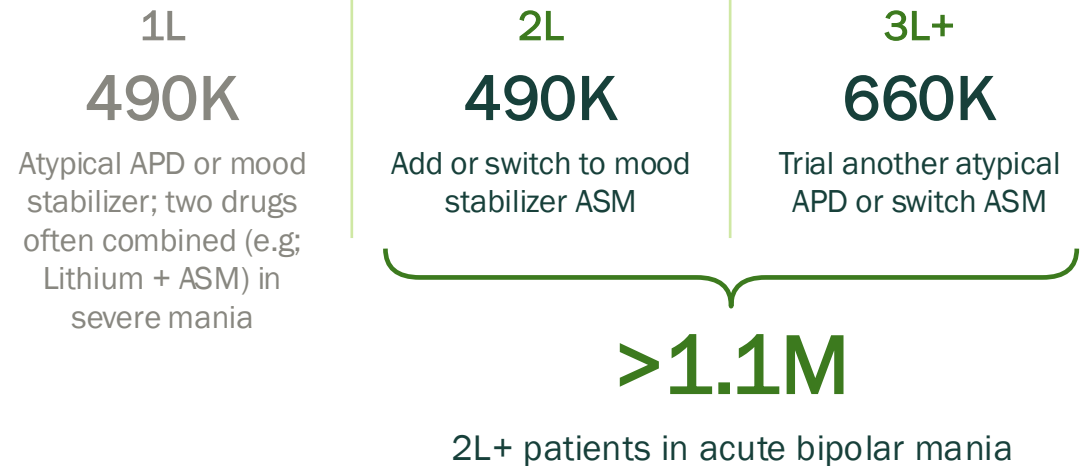


Bipolar mania: large market underserved by current treatments

U.S. patient population

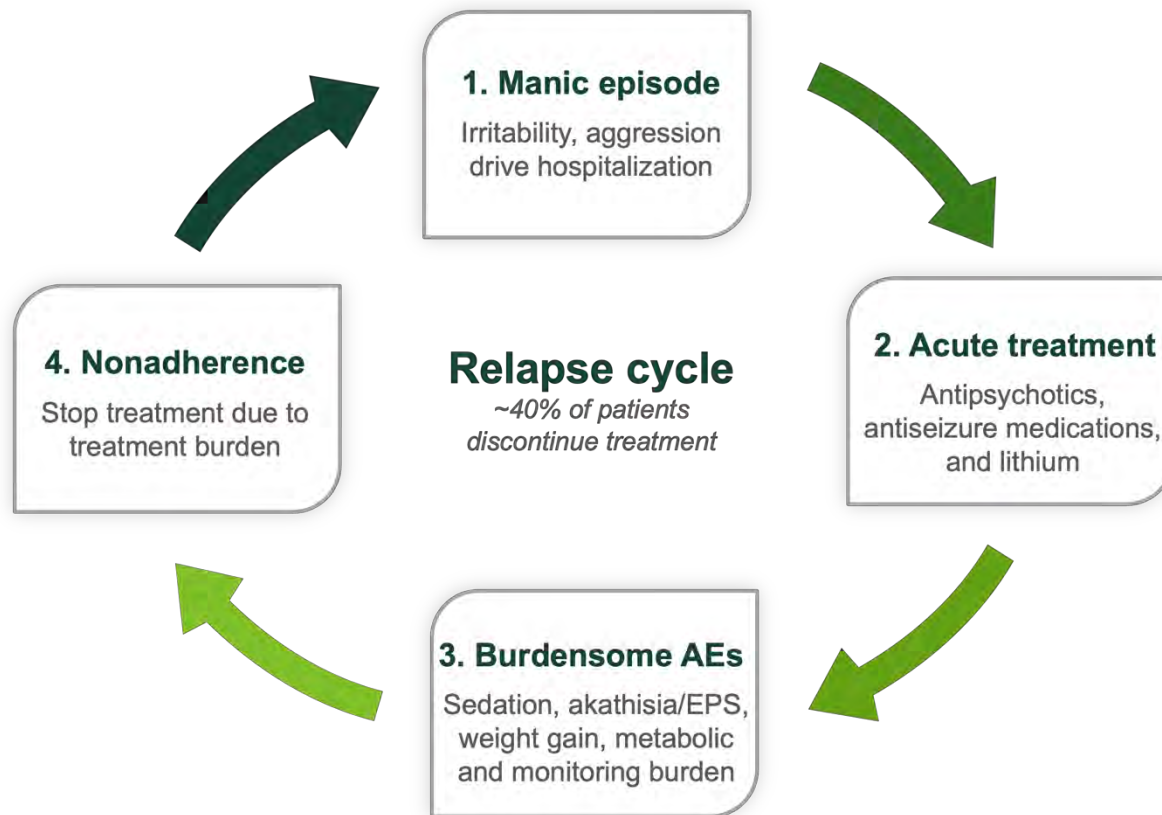


Metabolic and neurological side effects lead to lack of compliance & limit long-term chronic use



Patients need a new mechanism that can break the relapse cycle

Unmet need: an effective treatment for bipolar mania with a tolerability profile that supports adherence



RAP-219 could break the cycle

- ✓ Novel mechanism (TARPy8 AMPAR NAM)
- ✓ Statistically significant improvements in mania symptoms
- ✓ No evidence of AEs typically leading to discontinuation of current treatments
- ✓ No blood-level monitoring
- ✓ No DDIs

Clinical presentation of mania

CORE SYMPTOMS

Required for DSM-5

Elevated or irritable mood and raised energy, lasting a week or more

PLUS: 3 OR MORE OF THESE (4 if mood is only irritable)



COMMONLY ASSOCIATED SYMPTOMS

Agitation

Disruptive-aggressive behavior

Psychotic and mixed features

Anxiety

Substance use

Suicide risk

Impaired insight

Bipolar Mania Phase 2 Trial Topline Results



Jeff Sevigny, M.D.

Chief Medical Officer, Rapport

RAP-219 bipolar mania Phase 2 trial met primary and secondary endpoints; RAP-219 was well tolerated

STATISTICALLY SIGNIFICANT IMPROVEMENT IN MANIC SYMPTOMS WITH CONSISTENT BENEFIT ACROSS ALL MEASURES

3.1 points

placebo-adjusted YMRS improvement at Week 3

$p=0.045$ (primary)

15.4 points

mean YMRS improvement from baseline at Week 3 (RAP-219) vs -12.3 placebo

0.4 points

placebo-adjusted CGI-BP-S mania improvement at Week 3

$p=0.024$ (secondary)

All YMRS items favor RAP-219¹

Four items with nominal significance: irritability, content, disruptive-aggressive behavior, and sexual interest

RAP-219 WAS WELL TOLERATED IN PATIENTS WITH BIPOLAR MANIA



No severe TEAEs or SAEs on treatment



Low rates of discontinuation due to AEs: 3.2% RAP-219 vs 0.8% placebo

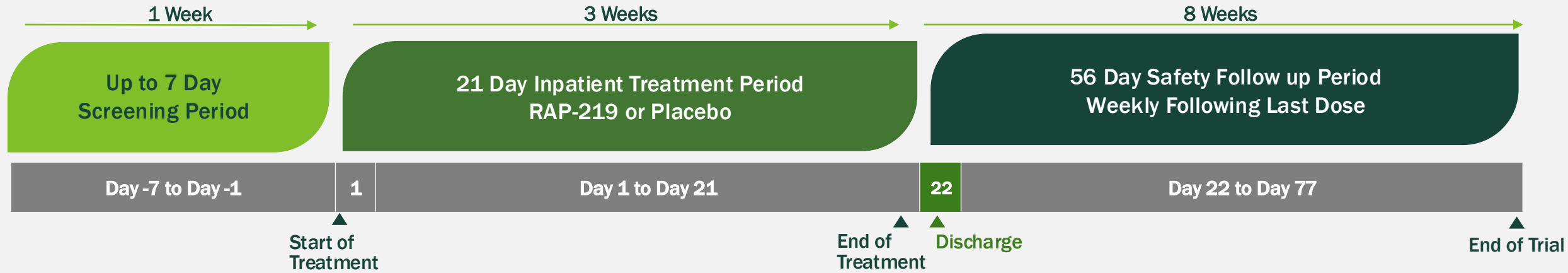


Overall incidence of TEAEs including psychiatric TEAEs were generally balanced between groups



Low somnolence and dizziness; no akathisia/ EPS

Phase 2 proof-of-concept trial in bipolar mania



Key Entry Criteria

- Adults with mania associated with bipolar I disorder, with or without mixed features, with or without psychotic symptoms
- At least one prior documented manic episode (with or without psychotic symptoms) that required treatment, within 5 years prior to Visit 1
- YMRS total score ≥ 25 at Screening and Baseline

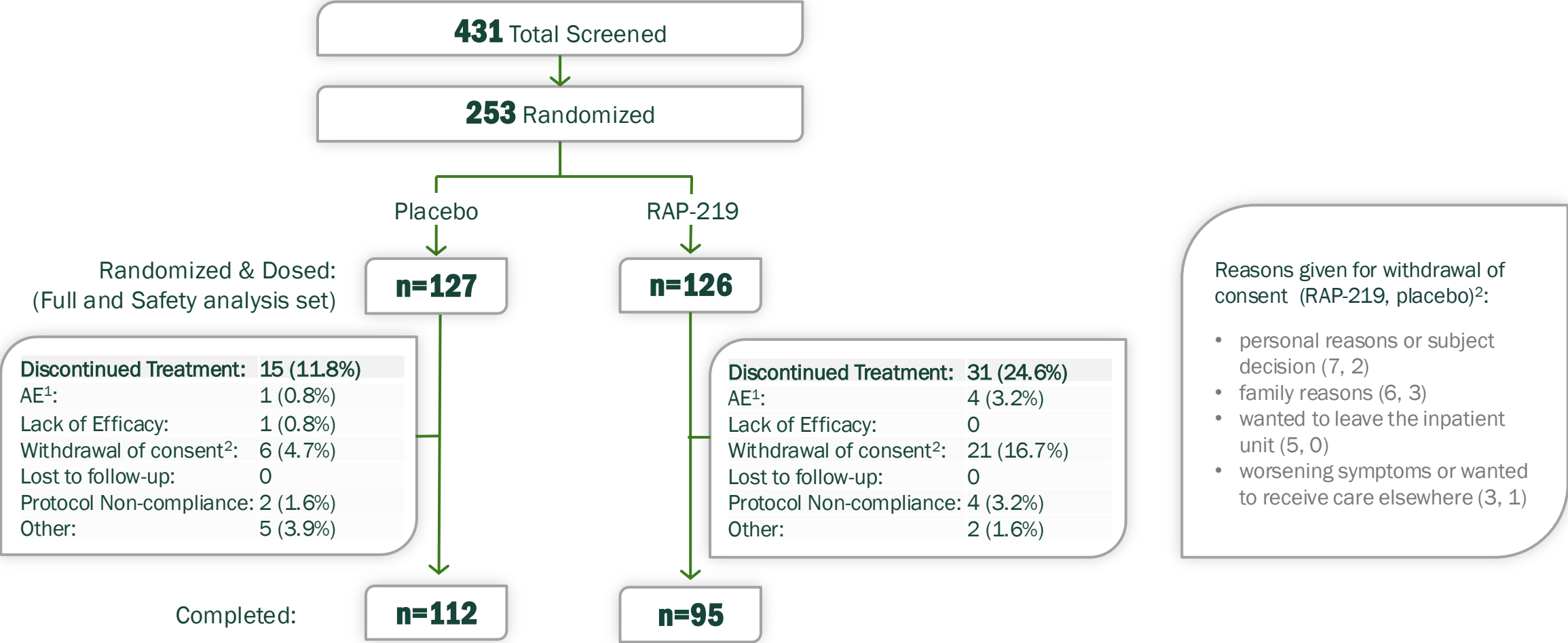
Dose Regimen

- Participants randomized 1:1:2 to RAP-219 with 2-or 4-day titration (2T or 4T, pooled for efficacy analysis), or placebo
- Maintenance dose: 0.75mg
- Participants washed out of any medication indicated for bipolar disease and any anxiolytic/hypnotic prior to randomization¹

Endpoints

- **Primary:** YMRS total score, change from baseline to Week 3
- **Secondary:** CGI-BP Severity of Illness–Mania, change from baseline to Week 3

Patient disposition and analysis sets



For participants who discontinued treatment, all data before discontinuation were included in the model and missing data was handled implicitly under a missing at random assumption

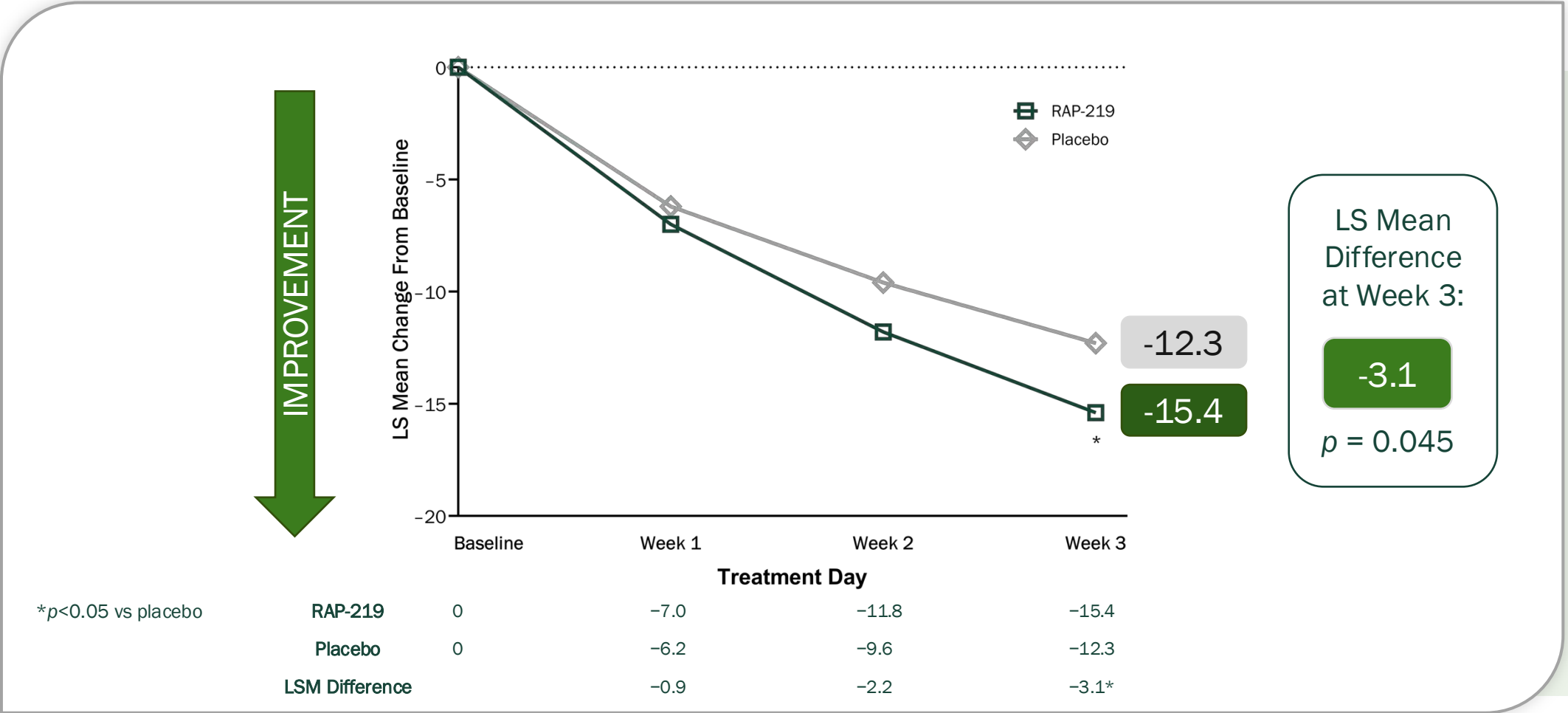
Patient demographic and baseline characteristics

Both arms balanced across key characteristics

	Placebo (N=127)	RAP-219 (N=126)
Age, years; mean (SD)	43.5 (11.7)	44.3 (11.4)
Male; n (%)	68 (53.5%)	74 (58.7%)
White; n (%)	67 (52.8%)	68 (54.0%)
Black or African American; n (%)	54 (42.5%)	55 (43.7%)
Weight, kg; mean (SD)	88.0 (19.8)	87.2 (19.6)
Time since initial diagnosis, years; mean (SD)	19.5 (11.0)	19.4 (11.7)
Current Episode; n (%)		
With mixed features	4 (3.1%)	4 (3.2%)
With psychotic features; n (%)	51 (40.2%)	48 (38.1%)
Duration, days; mean (SD)	26.8 (16.6)	29.5 (18.4)
Baseline YMRS, mean (SD)	35.8 (4.9)	36.9 (5.1)
Baseline CGI-BP-S Mania, mean (SD)	5.0 (0.5)	5.0 (0.6)

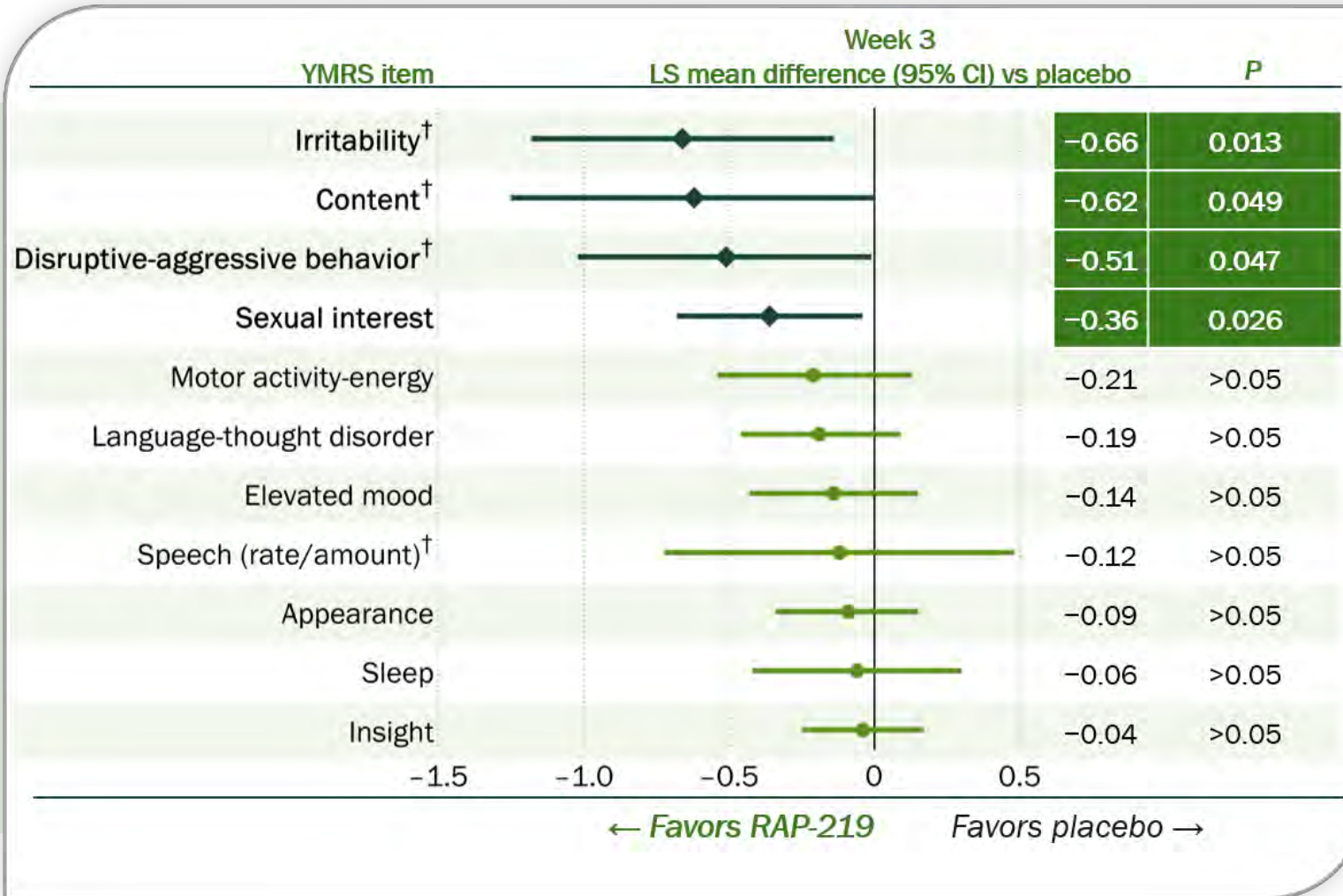
Statistically significant improvement on primary endpoint (YMRS)

3.1 points improvement vs placebo at Week 3 ($p=0.045$)



Greater improvement on all YMRS single-item scores with RAP-219

Key items achieving nominal significance



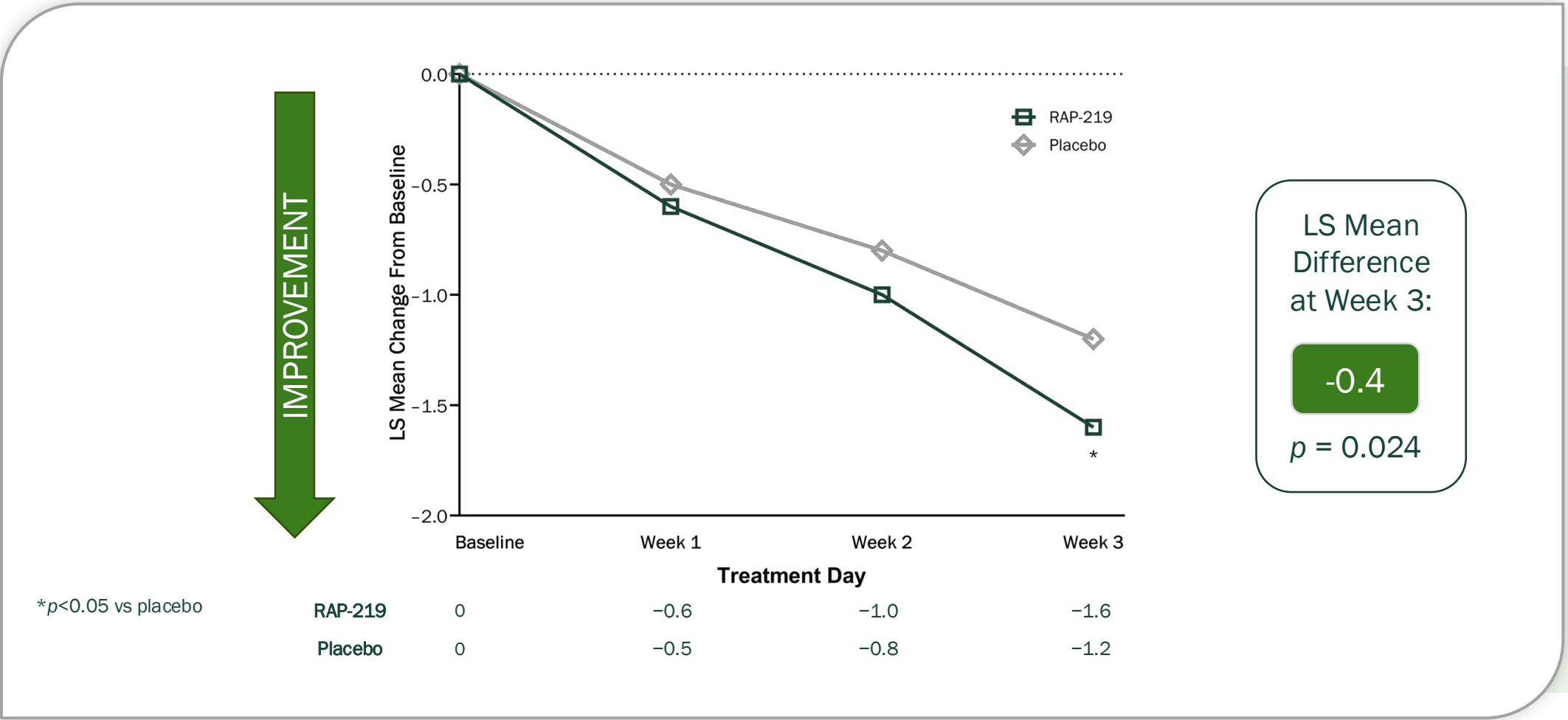
SINGLE-ITEM ANALYSIS SUMMARY

Prespecified Exploratory Endpoint

- All YMRS single-item scores numerically improved on RAP-219 vs placebo at Week 3
- Nominally significant improvements vs placebo:
 - Irritability and disruptive-aggressive behavior at weeks 2 and 3
 - Content and sexual interest at week 3

Statistically significant improvement on secondary endpoint (CGI-BP-S Mania)

0.4-point improvement vs placebo at Week 3 ($p=0.024$)



RAP-219 was well tolerated

All TEAEs mild or moderate; low rate of discontinuation due to TEAEs

- The overall incidence of TEAEs and of psychiatric TEAEs was similar between groups
 - All TEAEs were mild or moderate
- Overall TEAEs observed in $\geq 5\%$ of participants in either group were agitation, insomnia, restlessness, anxiety, headache, and nausea
 - Of these, nausea was the only TEAE that was reported $\geq 2x$ as often in participants on RAP-219 compared to placebo
- The most common TEAE on RAP-219 was agitation, generally occurring in the first week
 - Considered unrelated in $>80\%$ of patients who reported agitation (both groups)
 - Median duration of events was 2 days (both groups)

Treatment Period TEAE Summary	Placebo (N=127)		RAP-219 (N=126)	
Any TEAE, n (%)	67 (52.8)		65 (51.6)	
TEAEs leading to drug discontinuation	1 (0.8)		4 (3.2)	
TEAEs leading to dose reduction	1 (0.8)		0	
Mild TEAEs	31 (24.4)		33 (26.2)	
Moderate TEAEs	36 (28.3)		32 (25.4)	
Severe TEAEs	0		0	
SAEs	0		0	
Any Psychiatric TEAE, n (%)	42 (33.1)		44 (34.9)	

TEAEs in $\geq 5\%$ of participants in either group, n(%), and treatment relatedness	Placebo (N=127)		RAP-219 (N=126)	
	All	Treatment Related	All	Treatment Related
Agitation	12 (9.4)	2 (1.6)	21 (16.7)	4 (3.2)
Insomnia	19 (15.0)	1 (0.8)	18 (14.3)	4 (3.2)
Restlessness	10 (7.9)	0	11 (8.7)	2 (1.6)
Anxiety	7 (5.5)	1 (0.8)	9 (7.1)	1 (0.8)
Headache	13 (10.2)	6 (4.7)	7 (5.6)	1 (0.8)
Nausea	2 (1.6)	1 (0.8)	7 (5.6)	4 (3.2)

Topline results recap

RAP-219 met primary secondary endpoints and was well-tolerated

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Advancing RAP-219 in bipolar mania

Regulatory and clinical activities underway to support Phase 3 trials

NEXT STEPS

- Efficacy and safety data establish proof-of-concept for a novel, differentiated mechanism

- 1Q 2027

- End-of-Phase 2 meeting anticipated

- 2H 2027

- Phase 3 program initiation anticipated

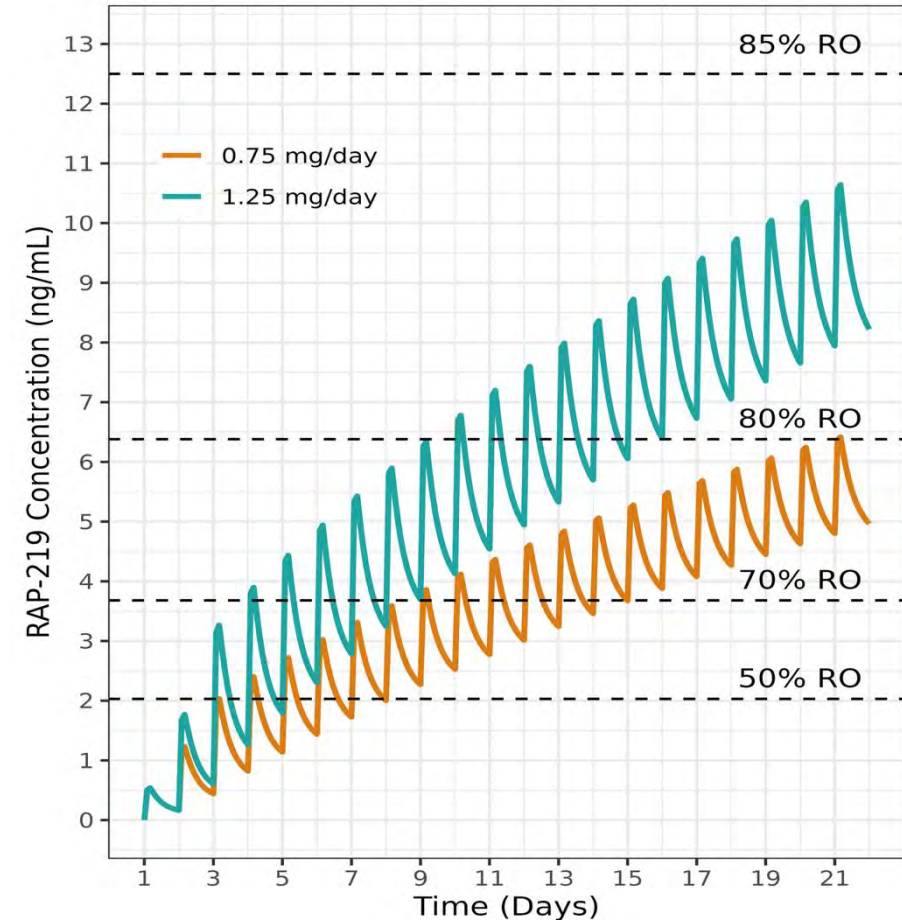
PHASE 3 ENHANCEMENT

- Higher dose: 1.25 mg achieves RO thresholds more quickly and higher RO at day 21

- Expanded footprint: Ex-US geographies with strong historical signal in neuropsych trials

- Protocol optimization based on Phase 2 trial insights

MODELED PK / RECEPTOR OCCUPANCY



KOL Perspective



Gary Sachs, M.D.

*Founding Director, Bipolar Clinic and Research Program,
Massachusetts General Hospital
Assoc. Clinical Professor of Psychiatry,
Harvard Medical School*

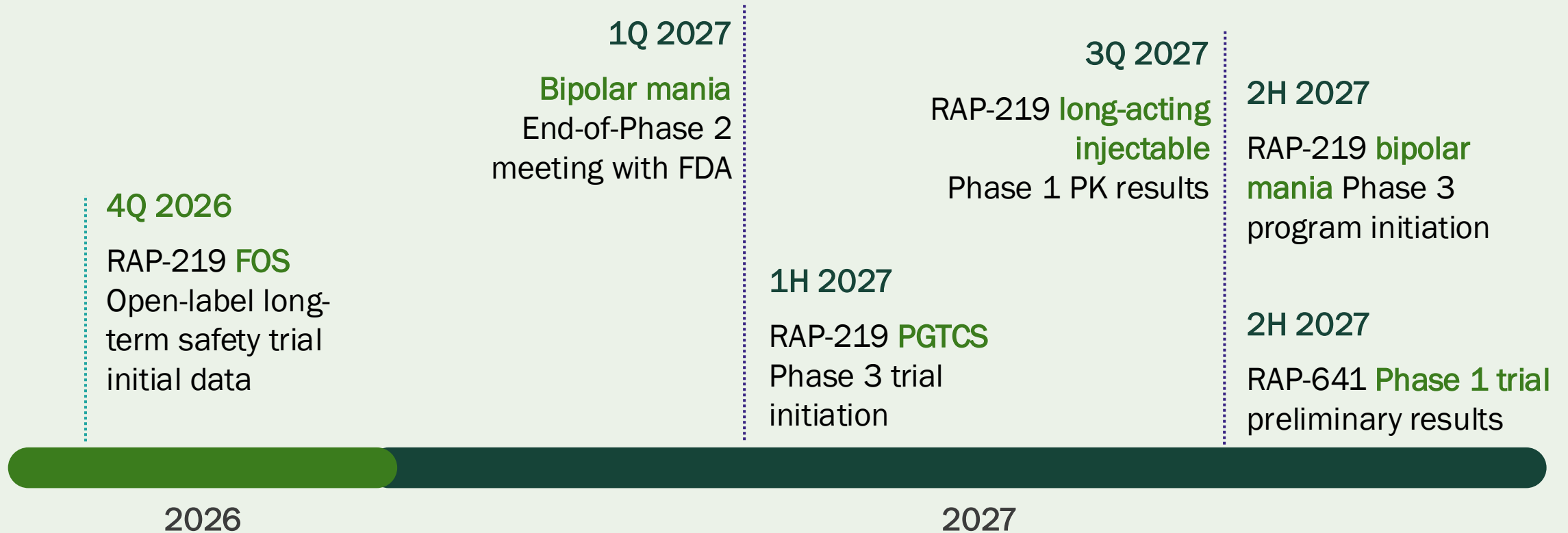
Near-term Catalysts and Financial Overview



Troy Ignelzi
Chief Financial Officer, Rapport

Multiple anticipated catalysts through 2027

Cash balance of \$436.1M¹ (as of 6/30/26) expected to support Rapport into 2H 2029

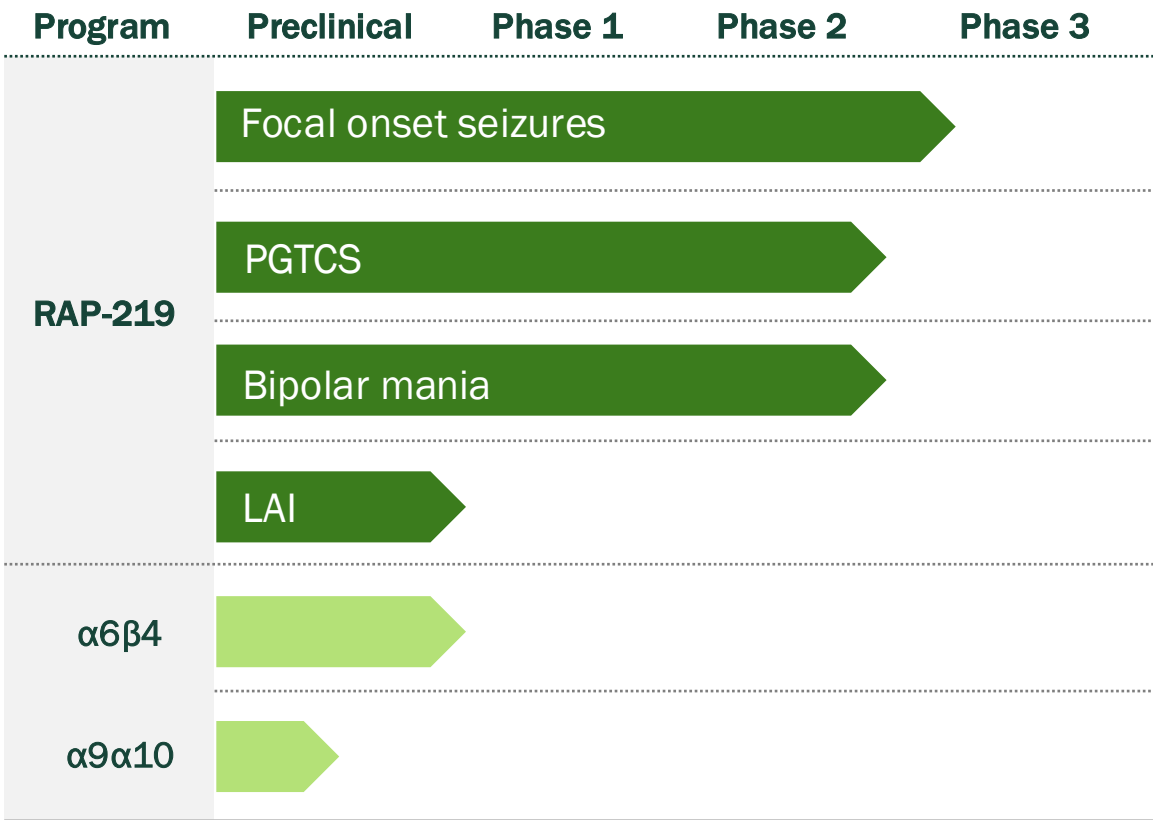


Closing Remarks

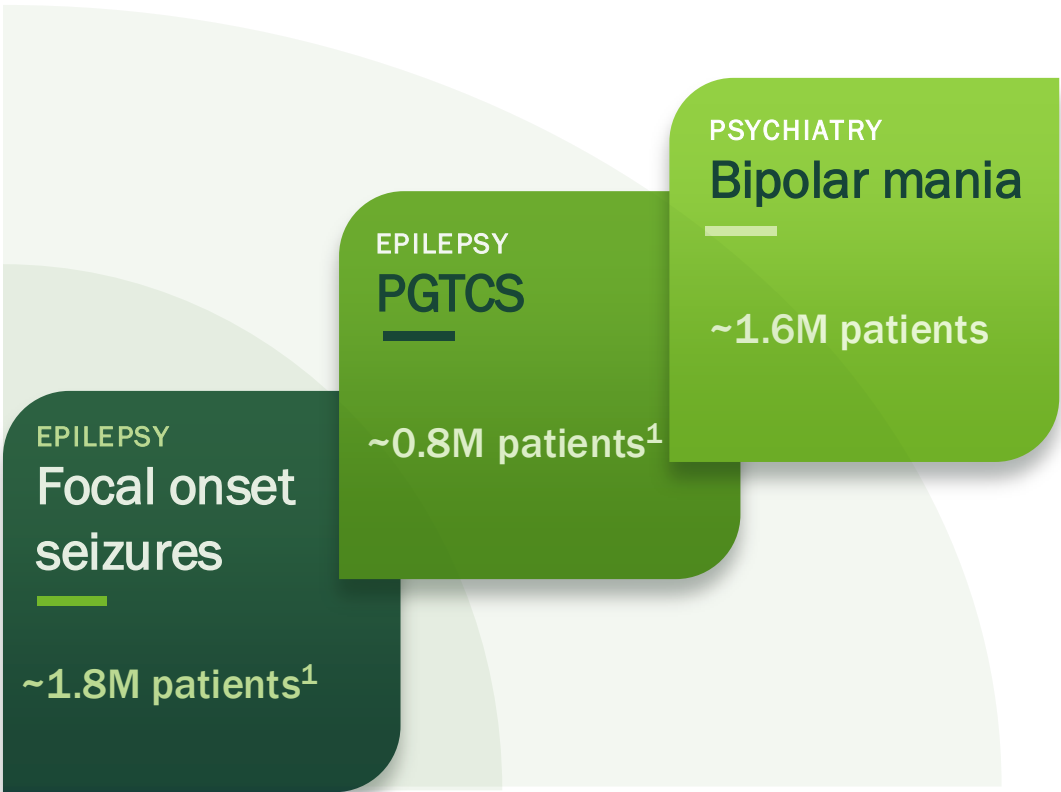


Abe Ceesay
Chief Executive Officer, Rapport

Building a precision neuroscience franchise



PIVOTAL-STAGE PIPELINE-IN-A-PRODUCT



¹ Based on 30-40% of patient population that is drug-resistant (those who continue to experience recurring seizures despite failing 2 or more antiseizure medications)

Questions & Answers

