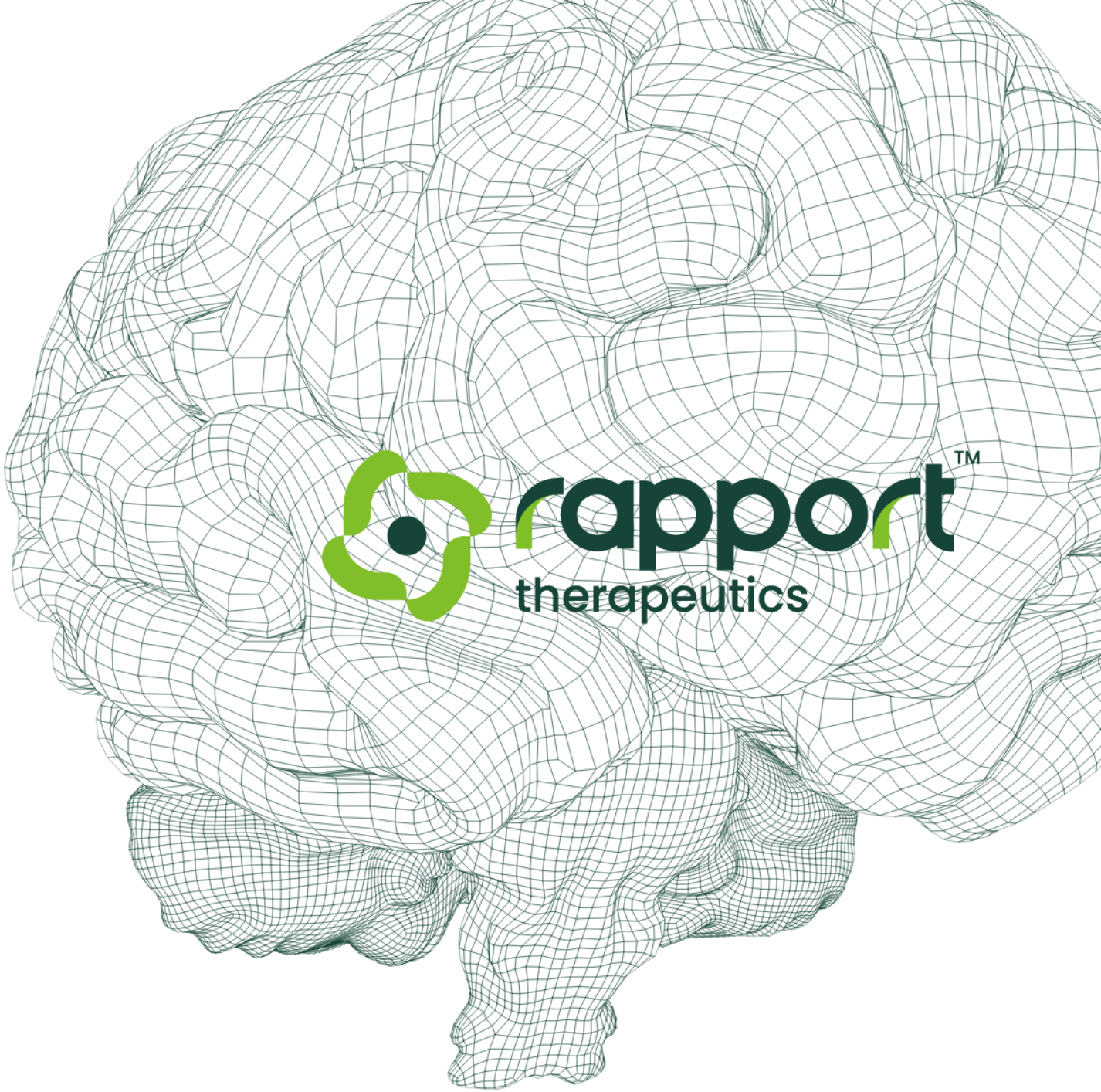
Corporate Presentation

May 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, and bipolar mania, including the initiation, timing, progress and results of the ongoing and planned 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, if approved; expectations for the development of a long-acting injectable formulation of RAP-219; the prioritization of the Company’s α6β4 program, including the development candidate’s potential in chronic pain and migraine and the Company’s IND-enabling activities; the deferral of further investment in the RAP-219 diabetic peripheral neuropathic pain program; the potential of Rapport’s RAP technology platform; and expectations for Rapport’s uses of capital, including its cash runway 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 Rapport’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; Rapport’s ability to execute on its strategy including obtaining the requisite regulatory approvals on the expected timeline, if at all; uncertainties relating to preclinical and clinical development activities; the Company’s dependence on third parties to conduct clinical trials, manufacture its product candidates and develop and commercialize its product candidates, if approved; Rapport’s ability to attract, integrate and retain key personnel; risks related 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 related to regulatory developments and approval processes of the U.S. Food and Drug Administration and comparable foreign regulatory authorities; risks related to establishing and maintaining Rapport’s intellectual property protections; and risks related to the competitive landscape for Rapport’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 Rapport’s subsequent filings with the Securities and Exchange Commission. Any forward-looking statements represent Rapport’s views only as of today and should not be relied upon as representing its views as of any subsequent date. Rapport 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.

rapport™ therapeutics

Leadership with track record of innovation and expertise

Management Team

David Bredt, M.D., Ph.D.
Founder, Chief Scientific Officer
20+ years neuroscience drug discovery experience; Former Global Head of Neuroscience discovery, Janssen Global Services

Johnson&Johnson Lilly

Abe Ceesay[1]
Chief Executive Officer
15+ years commercial and executive leadership experience; Former President, Cerevel Therapeutics

cerevel Ironwood genzyme
TIBURIO scPharmaceuticals

Cheryl Gault
Chief Operating Officer
20+ years corporate strategy and corporate development experience

cyclerion Ironwood genzyme

Troy Ignelzi
Chief Financial Officer
25+ years financial leadership experience in biotech and pharma sectors

KARUNA scPharmaceuticals
Lilly CINCOR ESPERION

Jeff Sevigny, M.D.
Chief Medical Officer
15+ years translational and clinical drug development

Lilly Prevail Biogen
NOVARTIS MERCK

Kathy Wilkinson
Chief People Officer
15+ years of human resources experience in biotech

bluebirdbio 2seventybio
Bristol Myers Squibb

Swamy Yeleswaram, Ph.D.
Chief Development Officer
25+ years drug discovery experience; Founding scientist of Incyte

Incyte Bristol Myers Squibb

Board of Directors

Steve Paul, M.D.
Founder and Board Chair
Venture Partner, Third Rock Ventures

James Healy, M.D., Ph.D.
Director
Managing Partner, Sofinnova Investments

Reid Huber, Ph.D.
Director
Partner, Third Rock Ventures; CEO, Merida Biosciences

John Maraganore, Ph.D.
Director
Former Founding CEO, Alnylam

Robert Perez
Director
Operating Partner, General Atlantic; Former CEO, Cubist Pharmaceuticals; Founder and Chairman, Life Science Cares

Raymond Sanchez, M.D.
Director
Senior Advisor, Bain Life Sciences; Former CMO, Cerevel Therapeutics

Paul Silva
Director
Former Chief Accounting Officer, Vertex Pharmaceuticals

Wendy Young, Ph.D.
Director
Former Head of Small Molecule Drug Discovery, Genentech

rapport™ therapeutics

[1] Employee director.

Small molecule precision medicines for patients with neurological and psychiatric disorders

Strong Foundation and Differentiated Precision Approach

Company builders with industry-proven leadership

Differentiated pharmacology we believe promotes **high selectivity and specificity**

Distinct profile with transformative potential across neurological and psychiatric disorders

Robust Clinical and Discovery Pipeline

Potential **first-in-class programs** targeting receptor associated proteins (RAPs)

Clinical stage lead program with pipeline-in-a-product potential

Medicinal chemistry-enabled **discovery portfolio** unlocks regenerative pipeline

Global IP portfolio with worldwide rights

RAP-219: Pipeline-in-a-Product with Multiple Potential Catalysts

Novel forebrain restricted TARPγ8 AMPAR modulator

Robust Phase 2a clinical data in **drug-resistant focal onset seizures (FOS)**; Expect to initiate Phase 3 program in Q2 2026

Expanding epilepsy portfolio to **primary generalized tonic-clonic seizures** (PGTCS)

Bipolar mania Phase 2 topline results expected in 4Q 2026

Well Financed

Strong financial position with **$476.8 million** as of March 31, 2026[1]

Cash runway expected to fund operations into 2H 2029

Tenacia collaboration for RAP-219 in Greater China: $20 million upfront, up to $308 million milestones, plus royalties

rapport™ therapeutics

TARPγ8: transmembrane AMPA regulatory protein gamma-8; AMPAR: α-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptors.

[1] Includes cash, cash equivalents, and short-term investments, excluding restricted cash.

Advancing precision therapeutics aimed at solving long-standing challenges in neuromedicine

Conventional CNS Drug Discovery

- Drugs interact with receptors that are ubiquitous in the brain and body
- Drugs not designed with precision for disease-specific neuroanatomic sites / receptors
- Drug interactions and adverse events lead to noncompliance and discontinuation
- Drug discovery with conventional approaches (lacking RAPs) can miss high potential, previously unexplored targets

The Potential of RAPs

- RAPs are components of the broader neuronal receptor complexes and play critical roles in regulating receptor assembly and function
- RAPs serve as unique binding sites targetable by novel pharmacophores designed for increased selectivity, providing neuroanatomical specificity
- RAPs can enable differentiated pharmacology and potentially provide favorable efficacy, safety, and administration profiles
- RAPs can “unlock” drug targets previously inaccessible to study in vitro, allowing for potentially first-in-class drug discovery programs

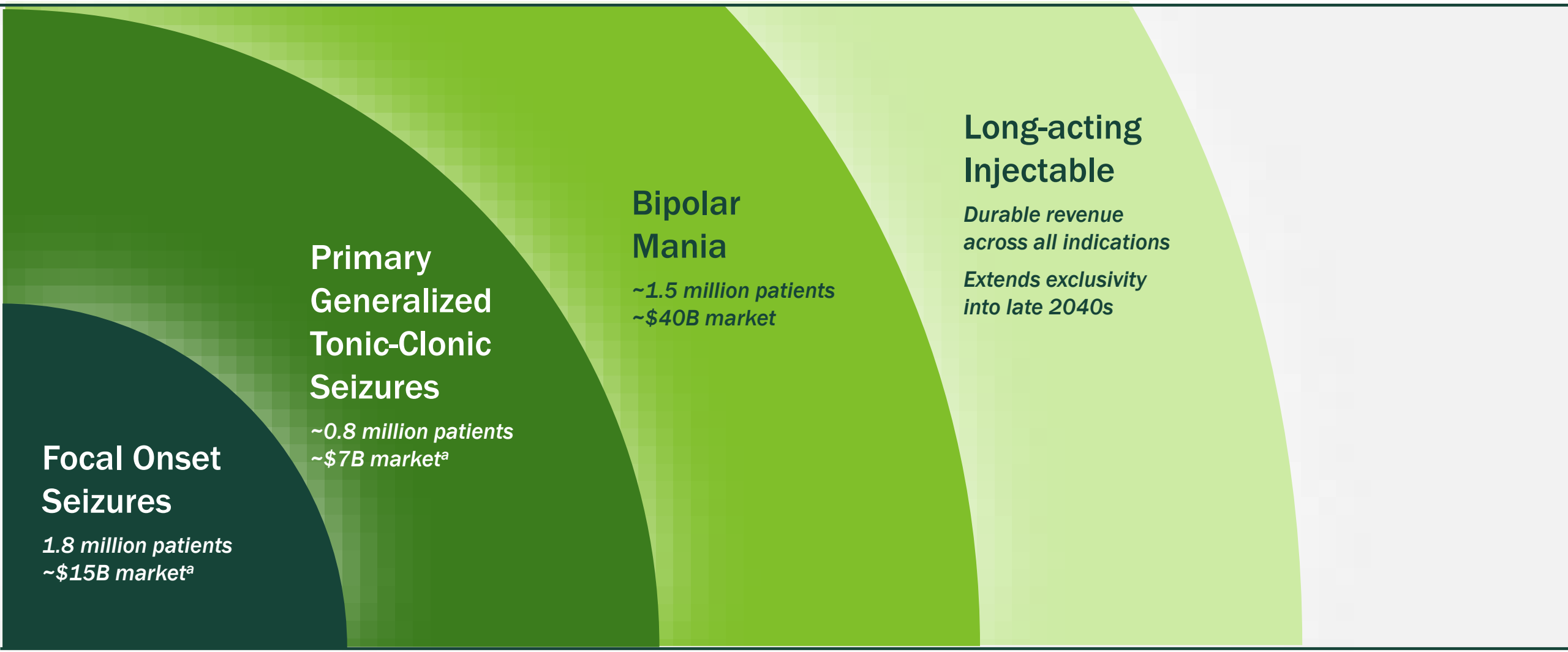
Precision neuroscience pipeline with opportunity to address large market opportunities

Program	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Next Expected Milestone
RAP-219 TARPγ8 AMPAR	Focal Onset Seizures					Phase 3 Initiation 2Q 2026
	Primary Generalized Tonic-Clonic Seizures					Phase 3 Initiation 1H 2027
	Bipolar Mania					Topline Results 4Q 2026
	Long-Acting Injectable					Phase 1 Topline Results (PK) 2027
nAChR	α6β4 Chronic Pain & Migraine					Phase 1 Trial Initiation
	α9α10 Hearing/Vestibular Disorders					Development Candidate Nomination

rapport™ therapeutics

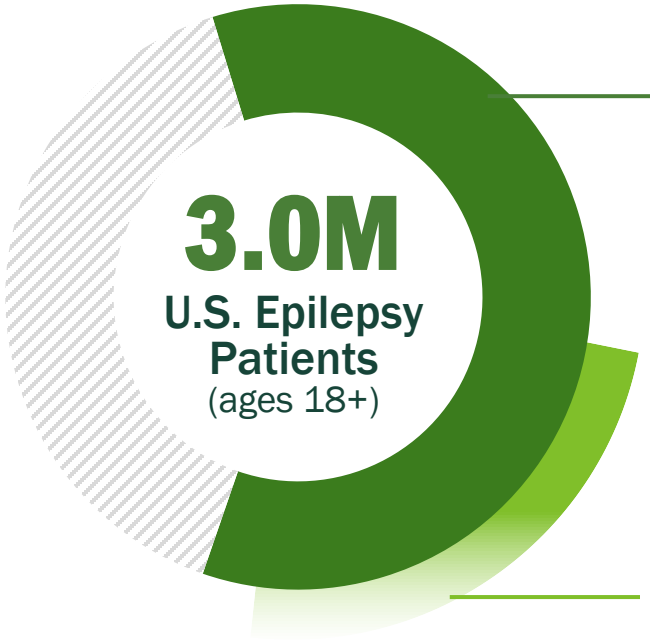
AMPAR – α-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor; nAChR – nicotinic acetylcholine receptor; PK – pharmacokinetics; IND – Investigational New Drug Application

RAP-219 pipeline-in-a-product supports long term growth runway



[a] Based on 30-40% of patient population that is drug-resistant (those who continue to experience recurring seizures despite taking two or more antiseizure medications)

Unmet need in epilepsy highlights limitations of current antiseizure medications



60%
1.8M Focal Onset Seizure Patients

30-40%
Drug-resistant[a]

~$15B market

Limitations of Antiseizure Medications (ASMs)

Limited Efficacy: Despite over 30 FDA approved ASMs, 30-40% of patients are still drug-resistant[a]

Tolerability Issues: Burdensome side-effects, such as sedation, ataxia, and cognitive problems

Potential for Serious Adverse Events: Such as severe cutaneous reactions, serious hematological disorders, and hepatic failure

Risk of Breakthrough Seizures: Missing doses of medicines with short half-lives create potential for breakthrough seizures[b]

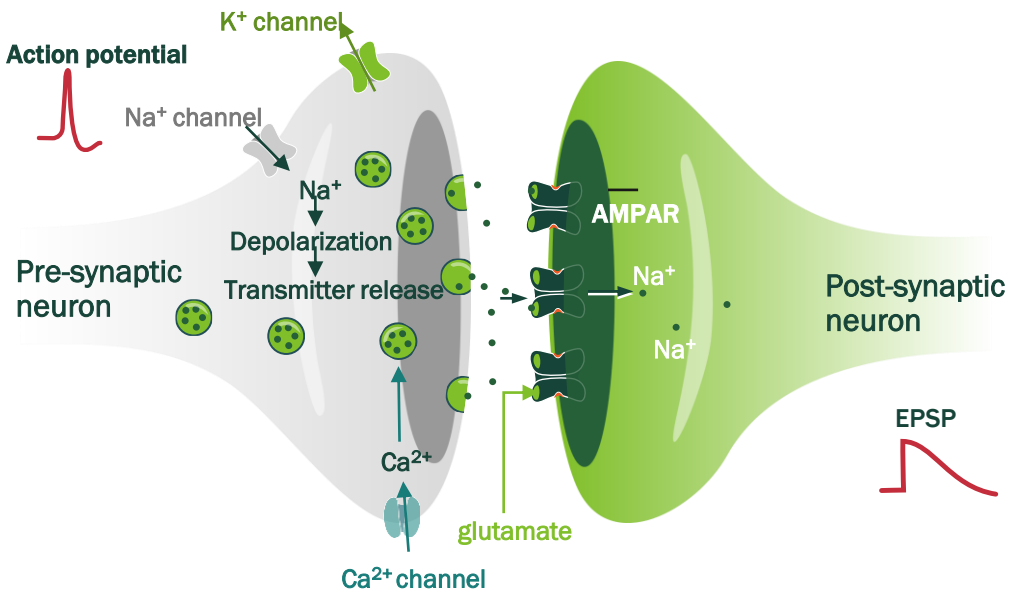
Complicated Administration: Long titration, drug-drug interactions, overlapping mechanisms, and lab monitoring

rapport™ therapeutics

[a] Drug-resistant patients are those who continue to experience recurring seizures despite taking two or more ASMs; [b] Source: Epilepsy Foundation. ASM – antiseizure medication

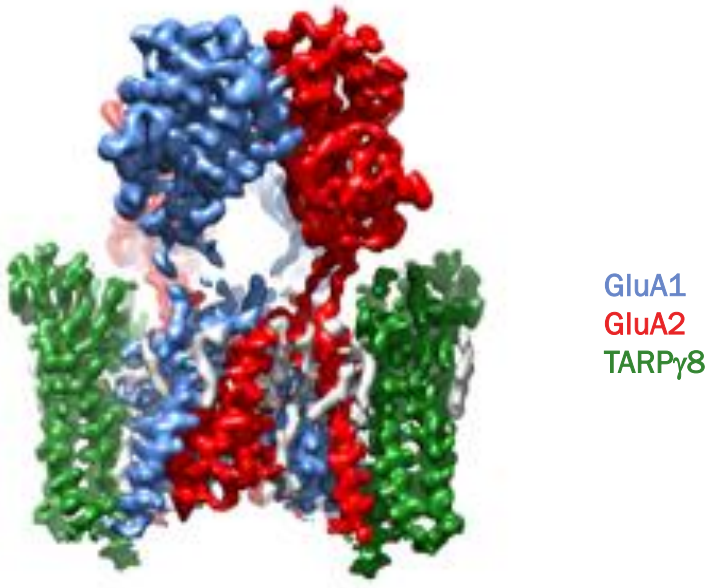
RAP-219 selectively binds to TARPγ8, representing a potential first-in-class precision medicine for neurological and psychiatric disorders

AMPA Receptors (AMPAR) in Epilepsy



- AMPA type glutamate receptors at excitatory synapses can mediate the initiation and propagation of seizures

Cryogenic Electron Microscopy of GluA1/2 + TARPγ8 Complex

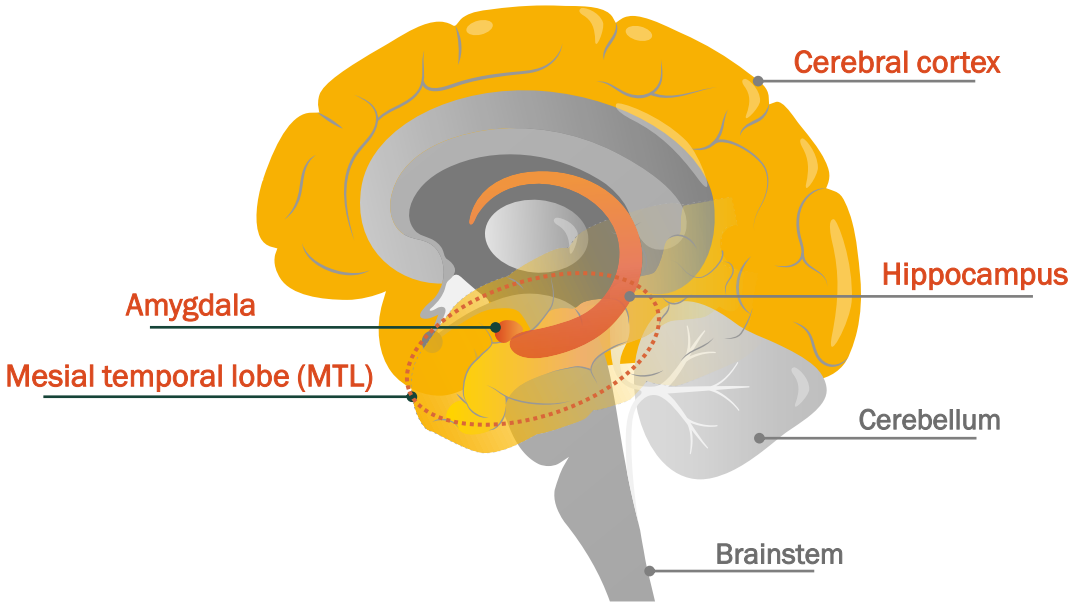


- TARPs regulate the trafficking, subcellular localization and gating of AMPA receptors

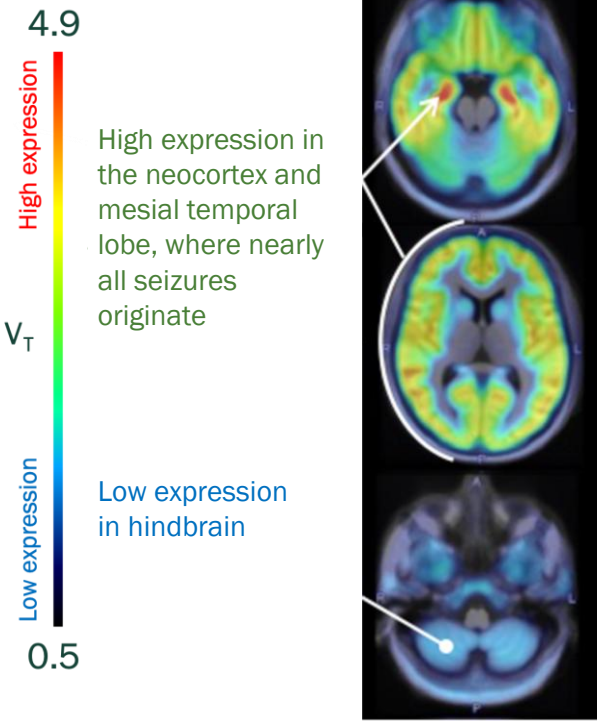
rapport™ therapeutics

RAP-219 target, TARPγ8, is selectively expressed in brain regions where focal onset seizures originate

Focal Onset Seizure Origination and Propagation



TARPγ8 Clinical PET[a]



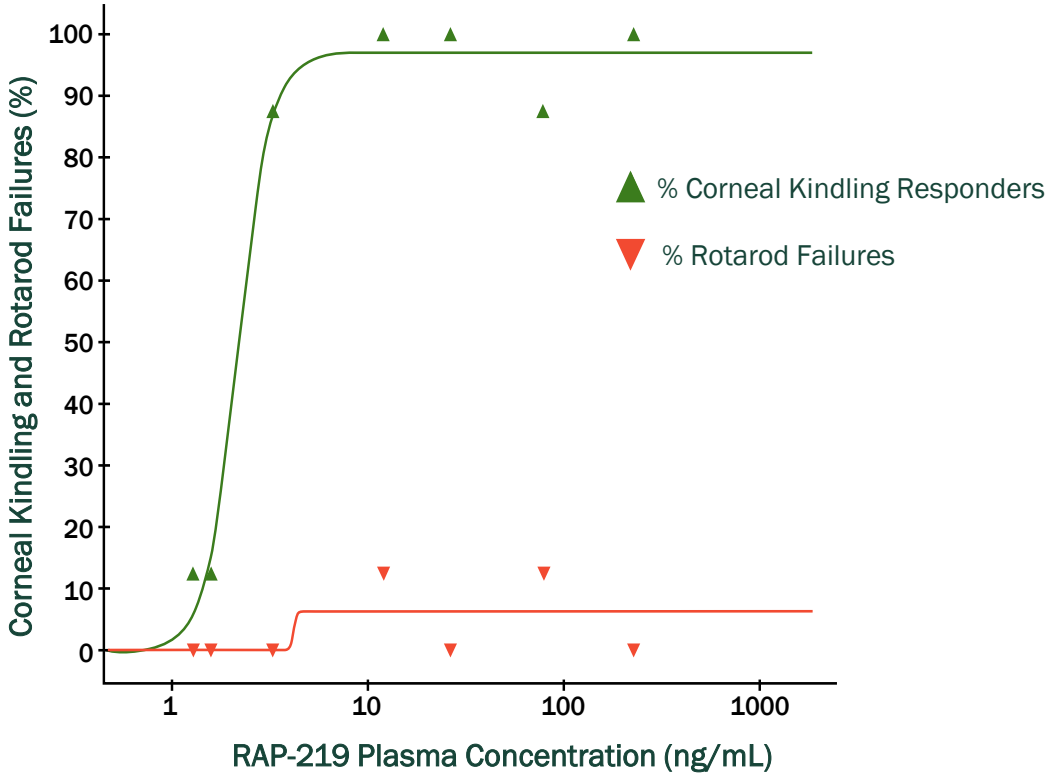
MTL and cerebral cortex are the key brain areas associated with focal onset seizures

PET results confirm TARPγ8 is highly expressed in the MTL and neocortex

[a] Greene et al, American Epilepsy Society (AES) 2025 Annual Meeting, Poster #3.355.

Robust activity of RAP-219 across a broad array of seizure models established our early confidence

Corneal Kindling Responders and Rotarod Failures in Mice



Epilepsy Model	
Corneal kindling – mouse[a]	✓
PTZ - mouse[a]	✓
Rotarod[a]	✓
Amygdala kindling – mouse	✓
Hippocampal kindling – mouse	✓
6Hz stimulation – mouse	✓
Frings audiogenic seizure – mouse	✓
GAERS absence epilepsy – rat	✓

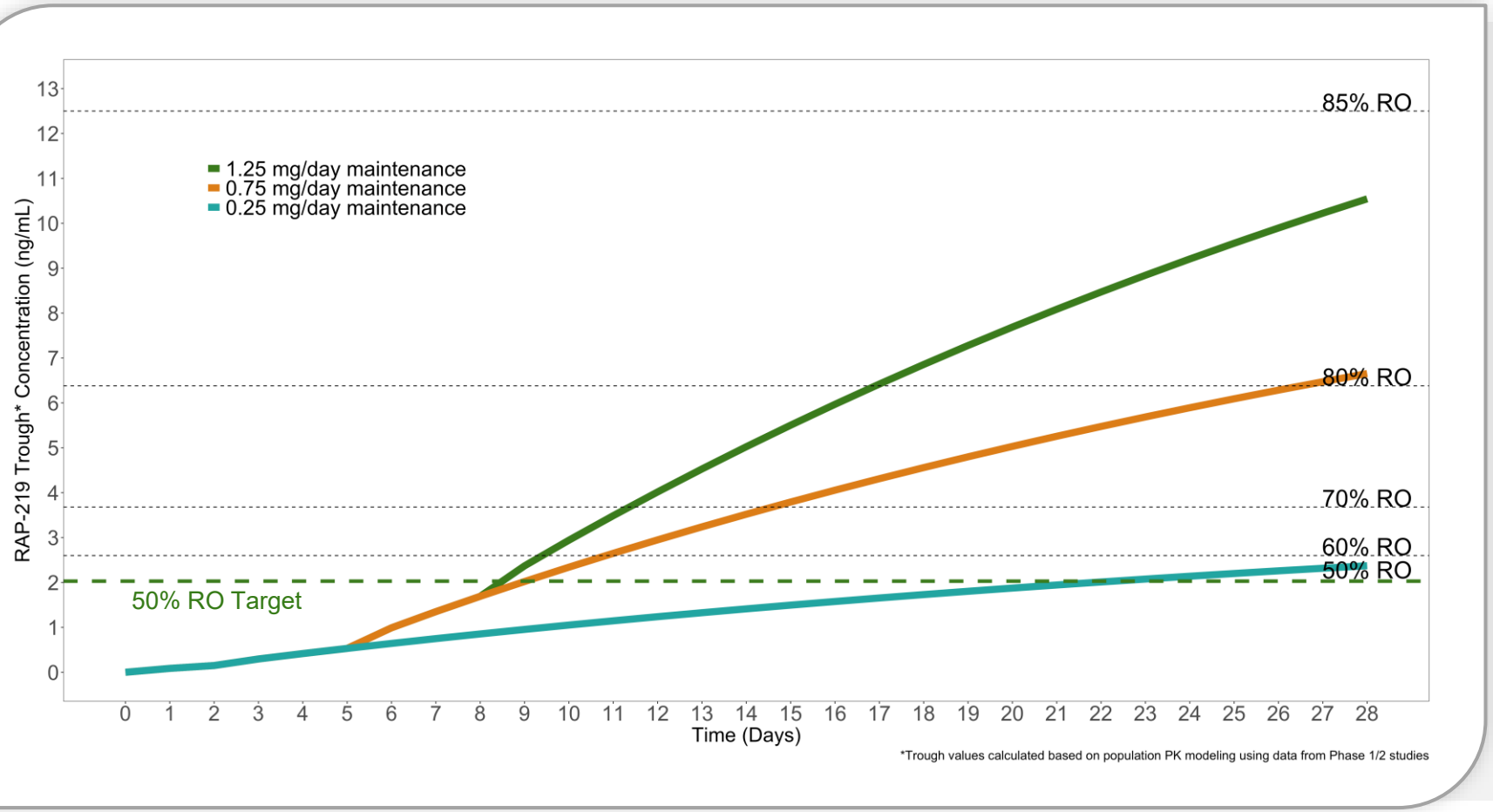
Robust, dose-dependent seizure protection observed in gold-standard preclinical model

Robust activity observed across a broad array of preclinical focal and generalized seizure models

rapport therapeutics™

[a]Used RAP-219; where not noted, used other TARPg8 NAM. PTZ – pentylenetetrazol; activity not seen in MES model, consistent with performance of levetiracetam and some other effective ASMs;

RAP-219 dose-exposure-RO relationship



- Preclinical models demonstrated maximal seizure protection at >50% RO (**green dashed line**)
- All Phase 3 FOS trial doses achieve target RO

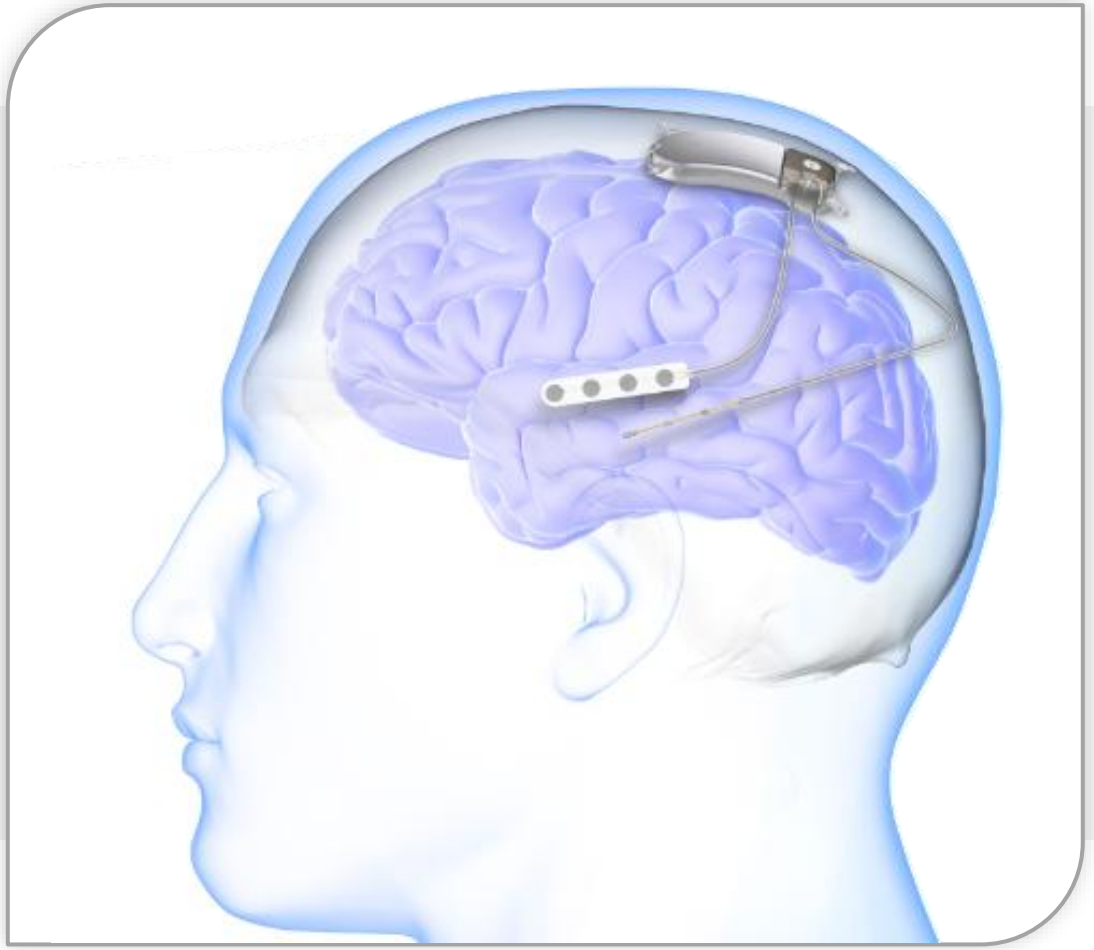
RO: Receptor occupancy.

RAP-219 in Focal Onset Seizures

Phase 2a proof-of-concept trial in FOS patients with an objective electrographic biomarker for clinical seizure reduction

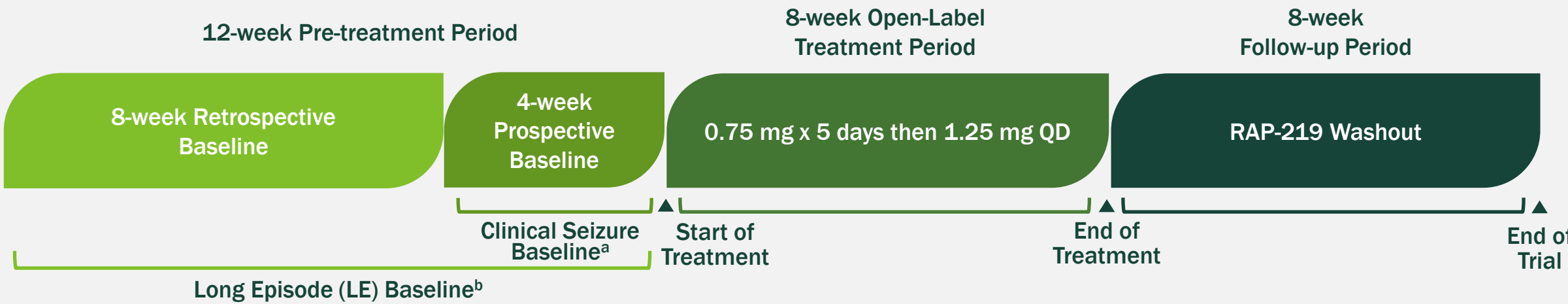
Neuropace RNS System®

- FDA-approved device for patients with drug-resistant focal onset seizures
- Two probes implanted into regions of the brain known to have epileptiform activity
- Probes continuously detect and record epileptiform activity, including long episodes (LEs) & stimulate the region to attenuate seizure activity
- ASMs resulting in a ≥ 30% reduction in LEs were associated with a ≥ 50% reduction in clinical seizures[a]



[a] Gammaitoni et al, American Epilepsy Society (AES) 2024 Annual Meeting, Poster #1.494.

Phase 2a trial in drug-resistant focal onset seizure patients



Key Entry Criteria

1. Drug-resistant focal onset seizures
2. RNS® probe implanted in seizure onset zone within mesial temporal lobe (MTL) ≥15 months before screening
3. Stable RNS System settings and other therapies
4. ≥16 LEs during 8-week retrospective review period
5. ≥1 clinical seizure reported during 8-week retrospective review period
6. >50% concordance between LEs and electrographic seizures

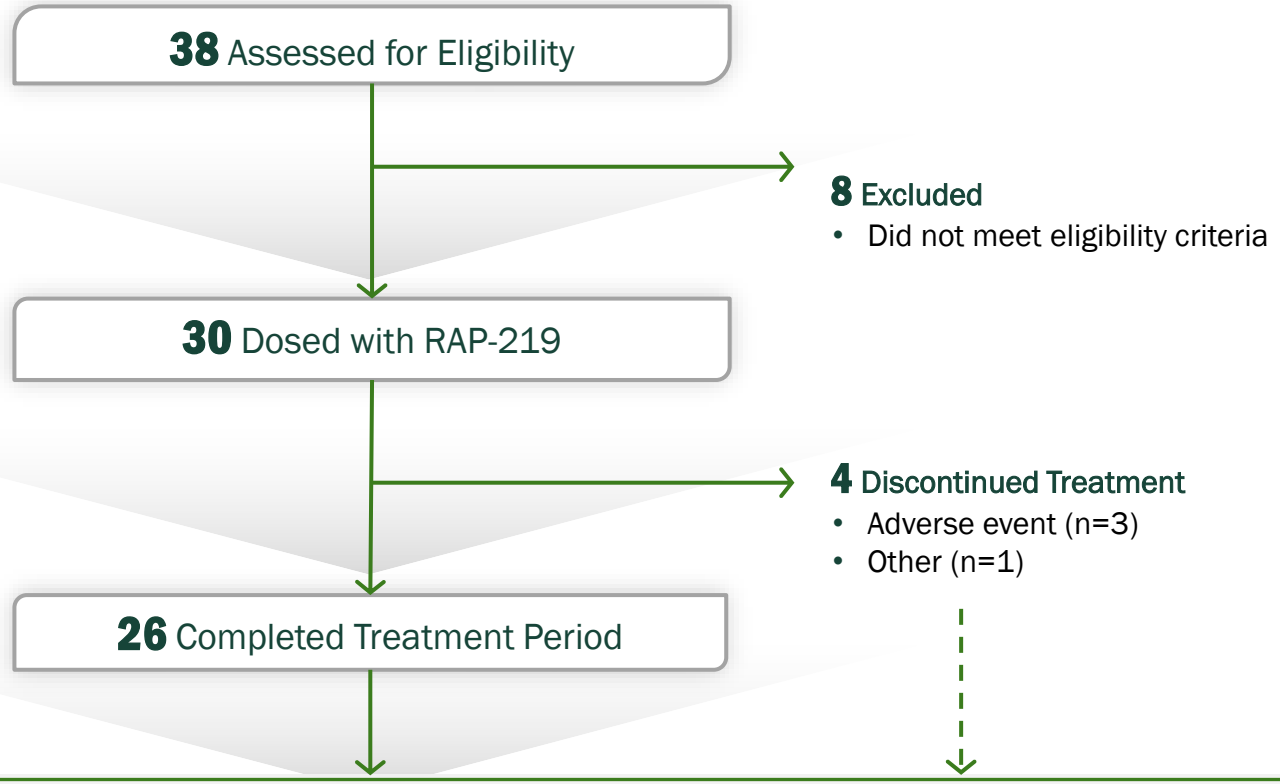
Key Endpoints

- **LE reduction** (power determinations based on this outcome measure)
  - Proportion of patients with ≥30% reduction compared with LE baseline
  - Median percent change from LE baseline
- **Clinical seizure reduction**
  - Proportion of patients with ≥50% reduction compared with pre-treatment baseline; proportion of patients who achieved seizure freedom
  - Median percent change from baseline

rapport™ therapeutics

[a] Patients with no clinical seizures during the prospective baseline period were allowed to enter the treatment period.
[b] LE baseline was defined as the 12 weeks preceding the initiation of treatment (the combination of the 8-week retrospective, and 4-week prospective baseline periods)
LE – long episode; MTL – mesial temporal lobe; RNS System – responsive neurostimulator; QD – once daily

Patient disposition and analysis populations



Analysis Populations

- → Safety population (N=30)
- → mITT population for LE efficacy (N=27)
  - Safety population minus 2 patients with <3 weeks of treatment and 1 patient with RNS setting change
- → mITT-CS population for clinical seizure efficacy (N=25)
  - mITT population minus 2 patients who did not have clinical seizures during prospective baseline
- → Completed follow-up (N=29)

mITT: patients with ≥3 weeks or treatment, ≥70% adherence, and no RNS system detection or stimulation setting changes. mITT-CS: patients in the mITT with ≥1 CS during the prospective baseline.
CS – clinical seizure; LE – long episode; mITT – modified intent-to-treat; RNS – responsive neurostimulator.

Patient demographic and baseline characteristics

Highly drug-resistant FOS patients are representative of those in registrational trials

Safety Population	N=30
Age, years, mean (SD)	40.1 (10.4)
Age at first seizure, years, mean (SD)	15.8 (9.3)
Sex, male, n (%)	18 (60)
Years since RNS implantation, median (range)	4.6 (2–11)
No. of concomitant ASMs	
Median (range)	3 (1–4)
1, n (%) | 2, n (%) | 3, n (%) | 4, n (%)	2 (7) | 7 (23) | 18 (60) | 3 (10)
Most frequent concomitant ASMs[a], n (%)	
Lamotrigine	15 (50)
Levetiracetam	12 (40)
Cenobamate	11 (37)
Zonisamide	9 (30)
Clobazam	7 (23)
Lacosamide	7 (23)

rapport™ therapeutics

[a]Maintenance ASMs in ≥20% of patients at baseline.
ASM – antiseizure medication; FOS – focal onset seizures; MTL – mesial temporal lobe; RNS – responsive neurostimulator; SD – standard deviation.

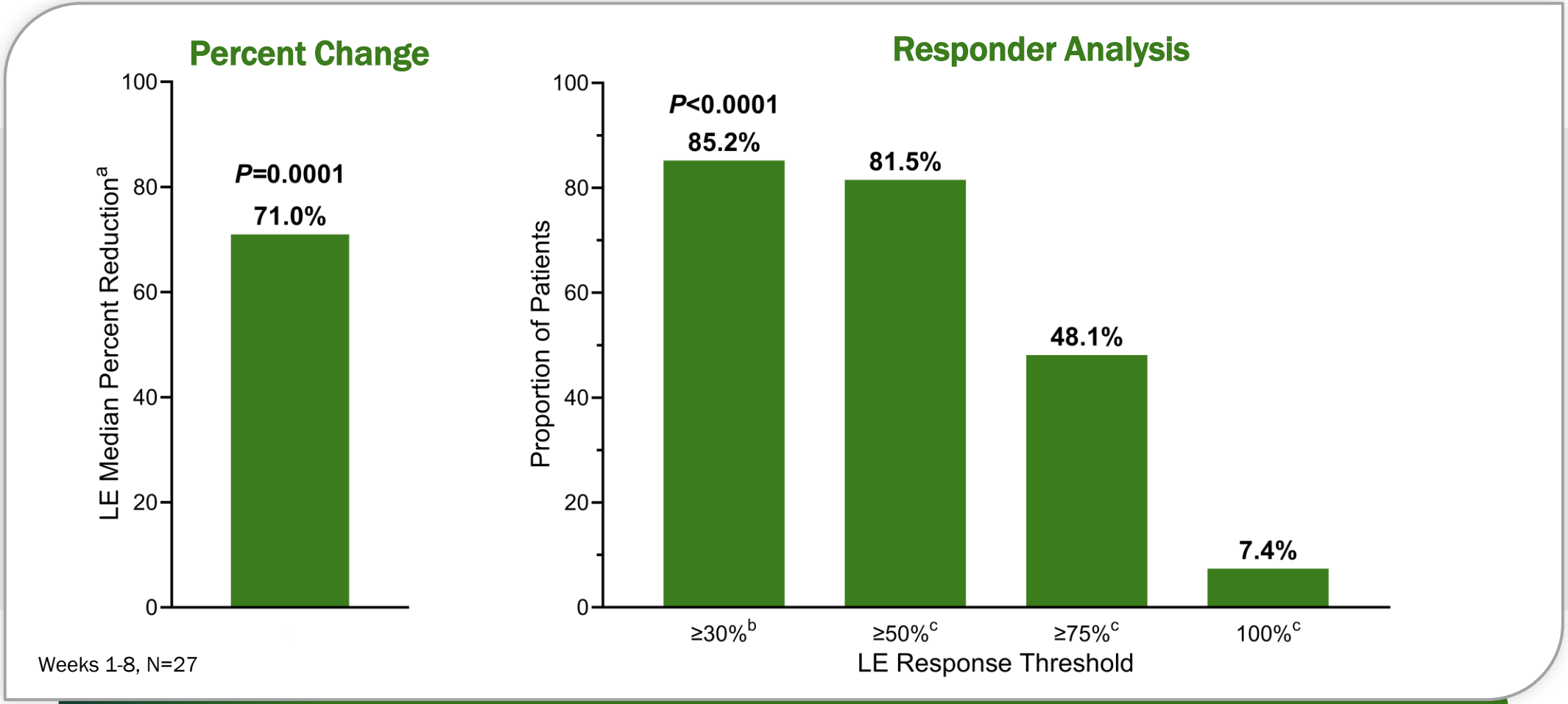
FOS efficacy analyses

- Efficacy analyses for 8-week treatment period:
  - mITT population (N=27) for long episodes
  - mITT-CS population (N=25) for clinical seizures

rapport therapeutics

Primary endpoints achieved with high statistical significance

71% reduction in long episodes (LEs); 85.2% responder rate (≥30% LE reduction)



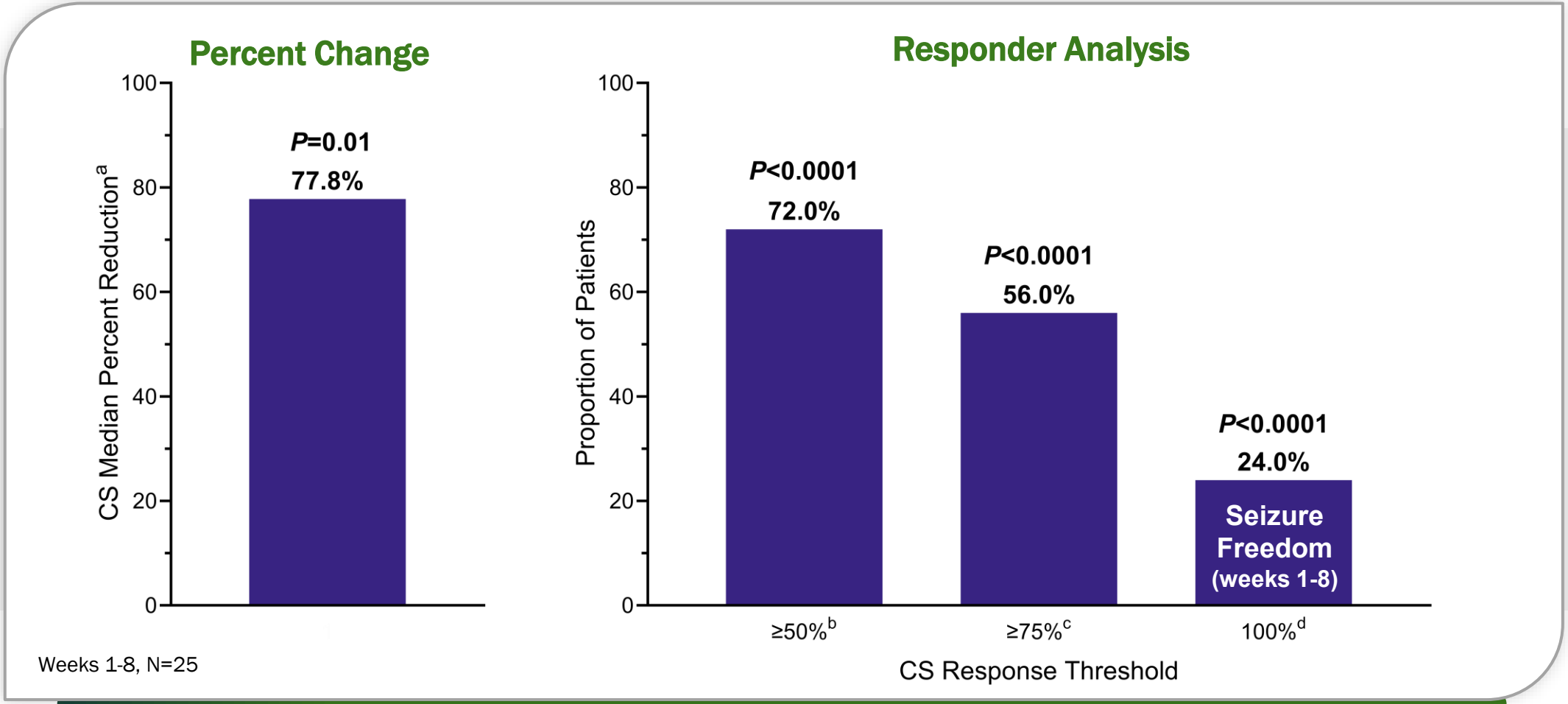
48 LEs at baseline (median, per 28 days); 92% electrographic seizure / LE concordance[d]

rapport™ therapeutics

[a] Median percent change statistical comparison used the Wilcoxon signed rank test to determine if the % change in LE was greater than 0%. [b] Responder analysis statistical comparison was based on a one-sample exact test to determine whether the proportion of responders is >10%. [c] Statistical comparisons were not made for other cut points. 95% confidence intervals for responder analysis – Clopper-Pearson exact binomial: ≥50%, (61.9, 93.7); ≥75%, (28.7, 68.1); 100%, (0.9, 24.3). [d] Concordance at baseline was determined by an independent epileptologist reviewer.

Clinical seizure secondary endpoints achieved with statistical significance

77.8% clinical seizure reduction; 72% achieved clinically meaningful response (≥50% reduction)



10 clinical seizures at baseline (median, per 28 days)

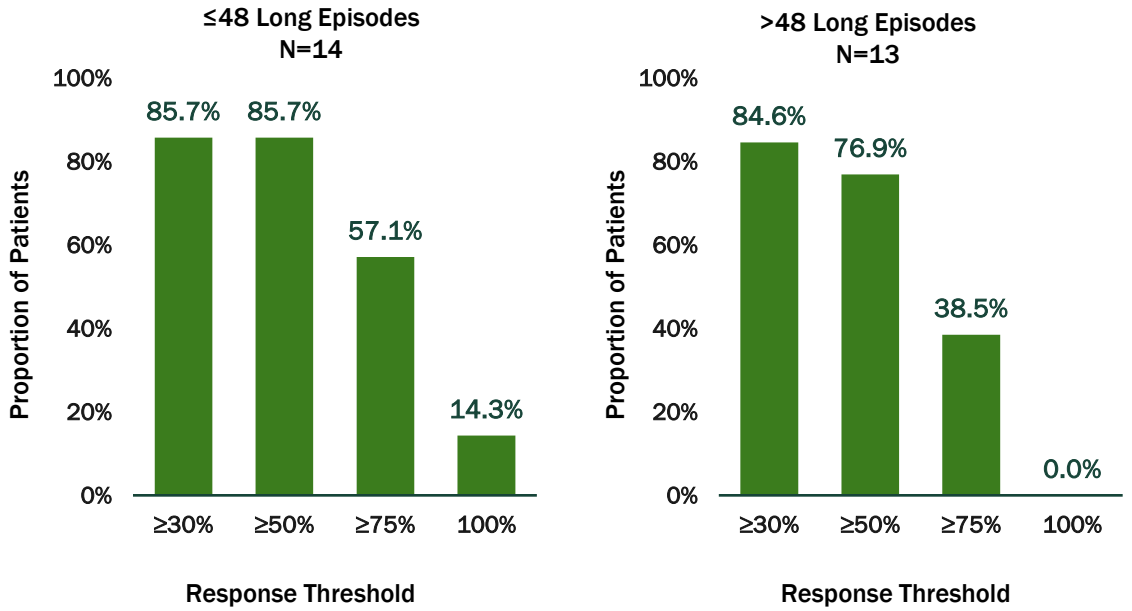
rapport™ therapeutics

[a] Statistical comparison for median percent change used the Wilcoxon signed-rank test to determine if the median % reduction from baseline in CS was greater than 20%. Responder analysis statistical comparison is based on a one sample exact test to determine whether the proportion of responders is, (b) >20%; (c) >7%; (d) >1.5% for the 50% responder, 75% responder, and seizure freedom groups, respectively. CS – clinical seizures.

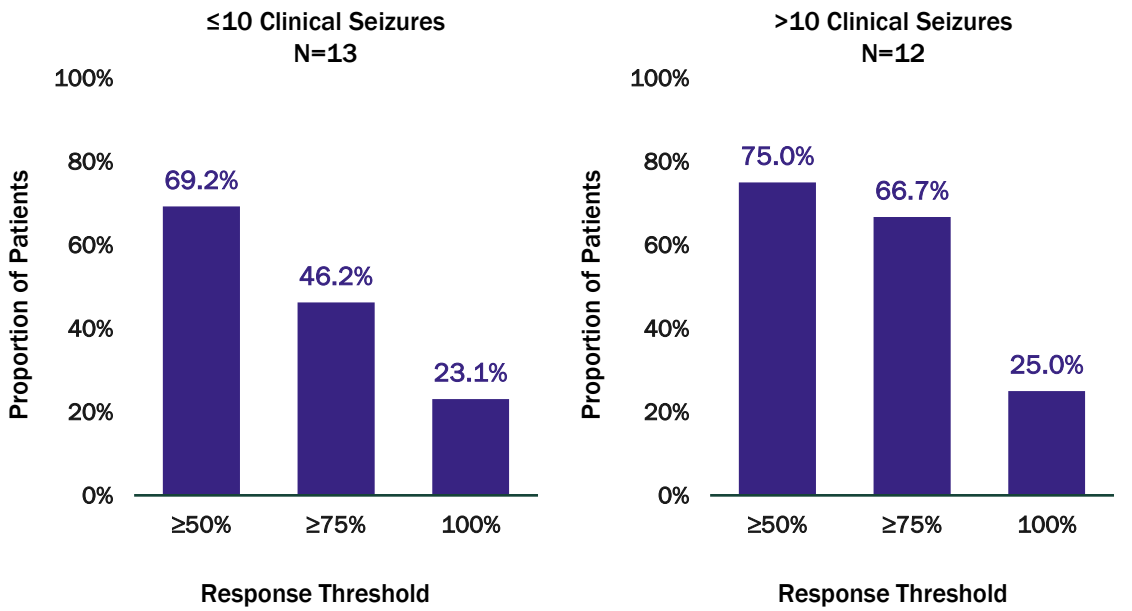
Clinically meaningful improvement demonstrated, regardless of baseline disease severity

Responder Rates by Baseline Severity

Long Episode Responder Rates



Clinical Seizure Responder Rates

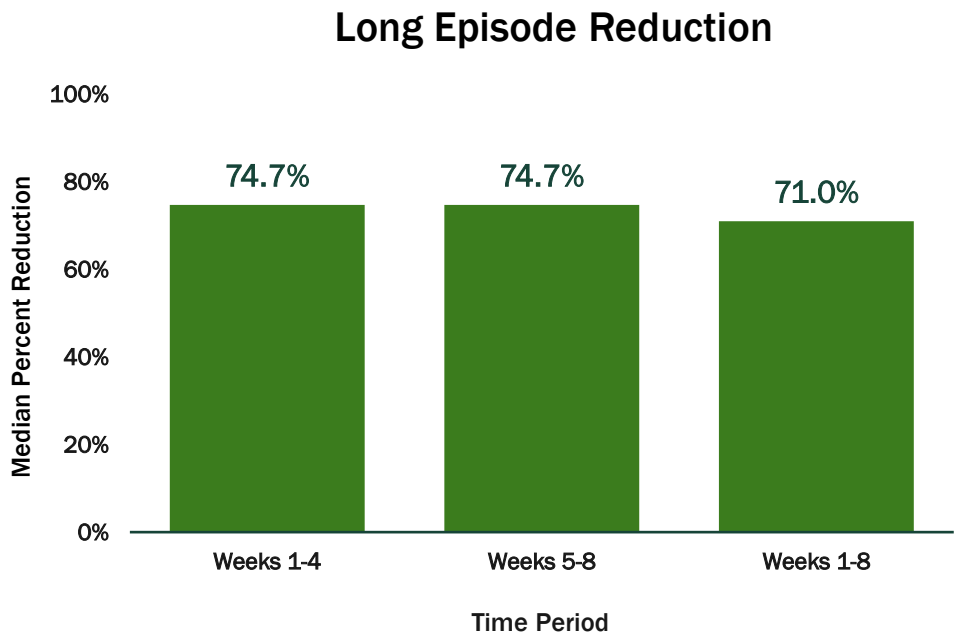


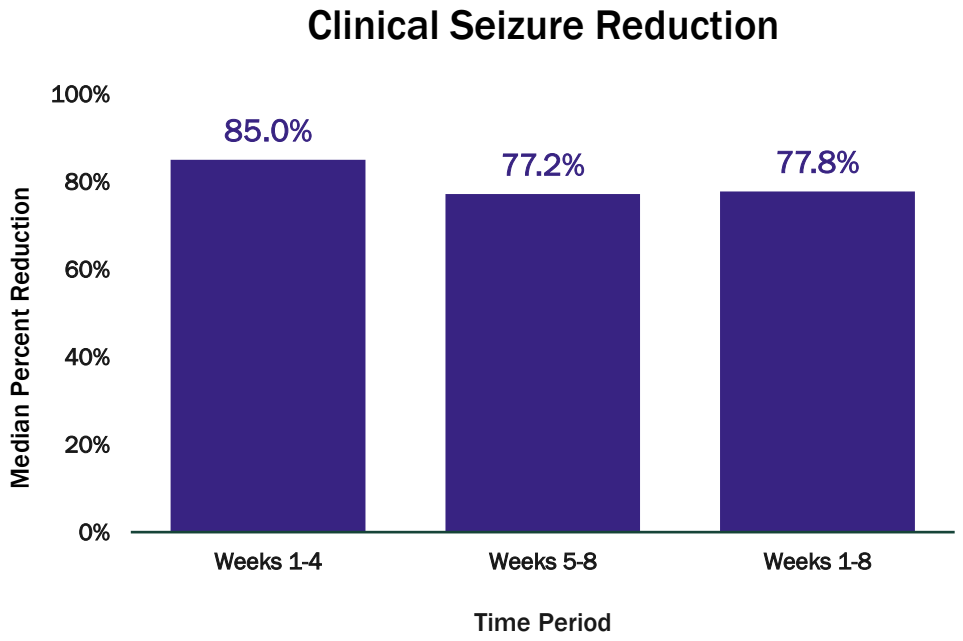
rapport™ therapeutics

Nolan et al, American Epilepsy Society (AES) 2025 Annual Meeting.

RAP-219 reduced LEs and clinical seizures similarly during early and late treatment periods

Effect of RAP-219 During Treatment Weeks 1-4 and 5-8



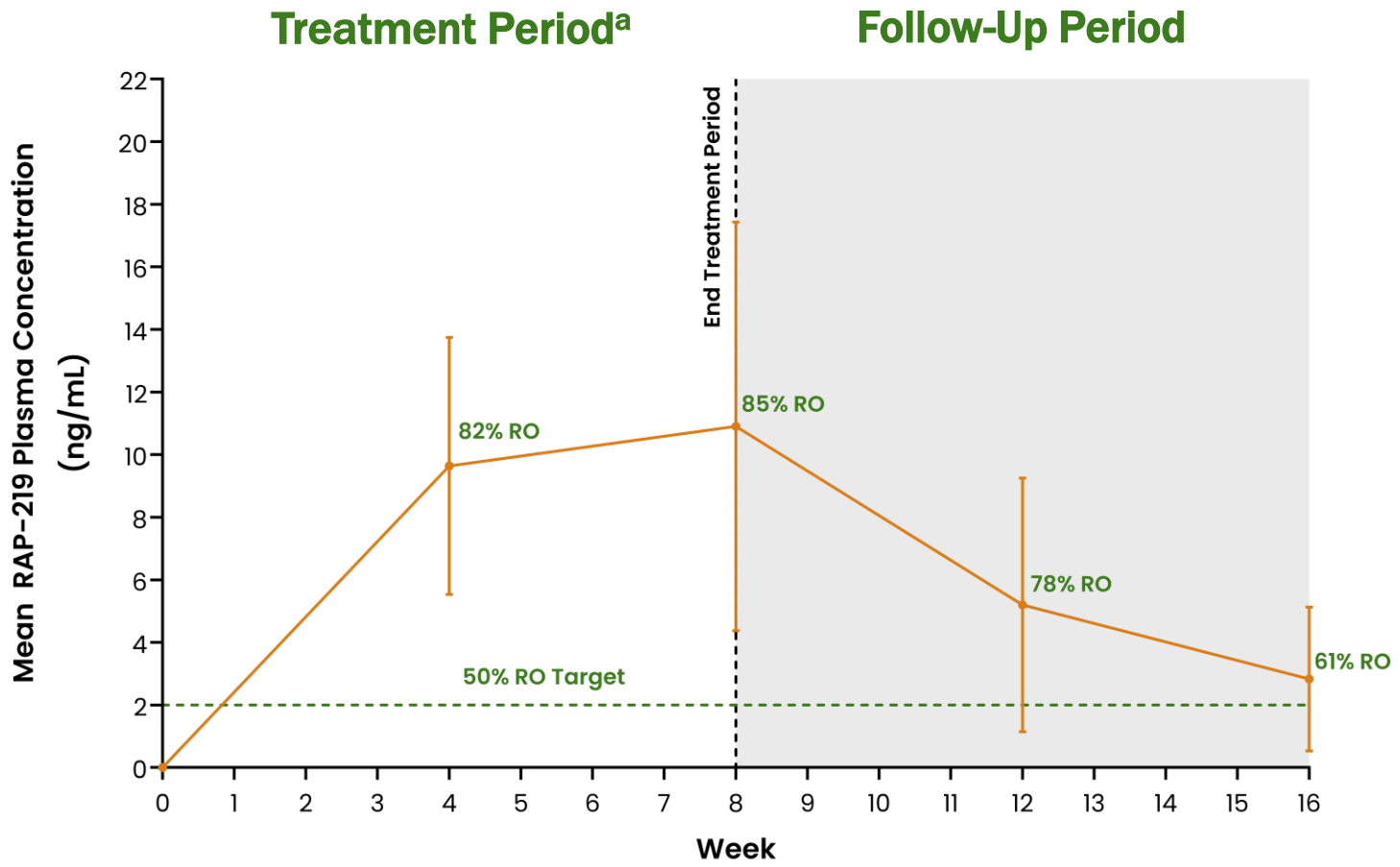


rapport™ therapeutics

Motley et al, American Epilepsy Society (AES) 2025 Annual Meeting, Poster #2.498.

Observed RAP-219 mean plasma concentrations

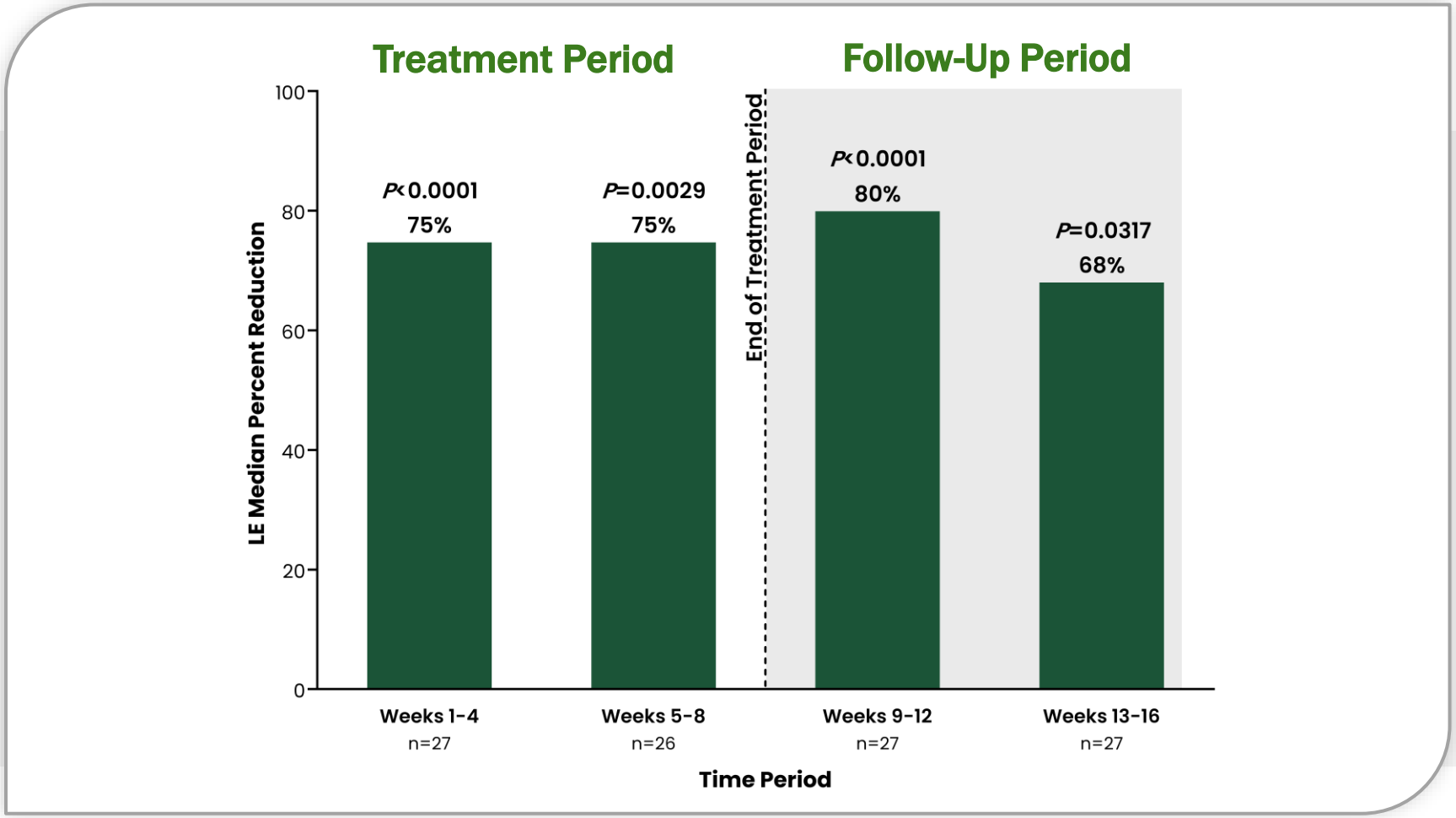
22-day half-life resulted in concentrations above target 50% RO throughout follow-up



[a]RAP-219 0.75 mg/day for 5 days, followed by RAP-219 1.25 mg/day for the remainder of the 8-week treatment period.

Effect of RAP-219 on long episodes in follow-up period

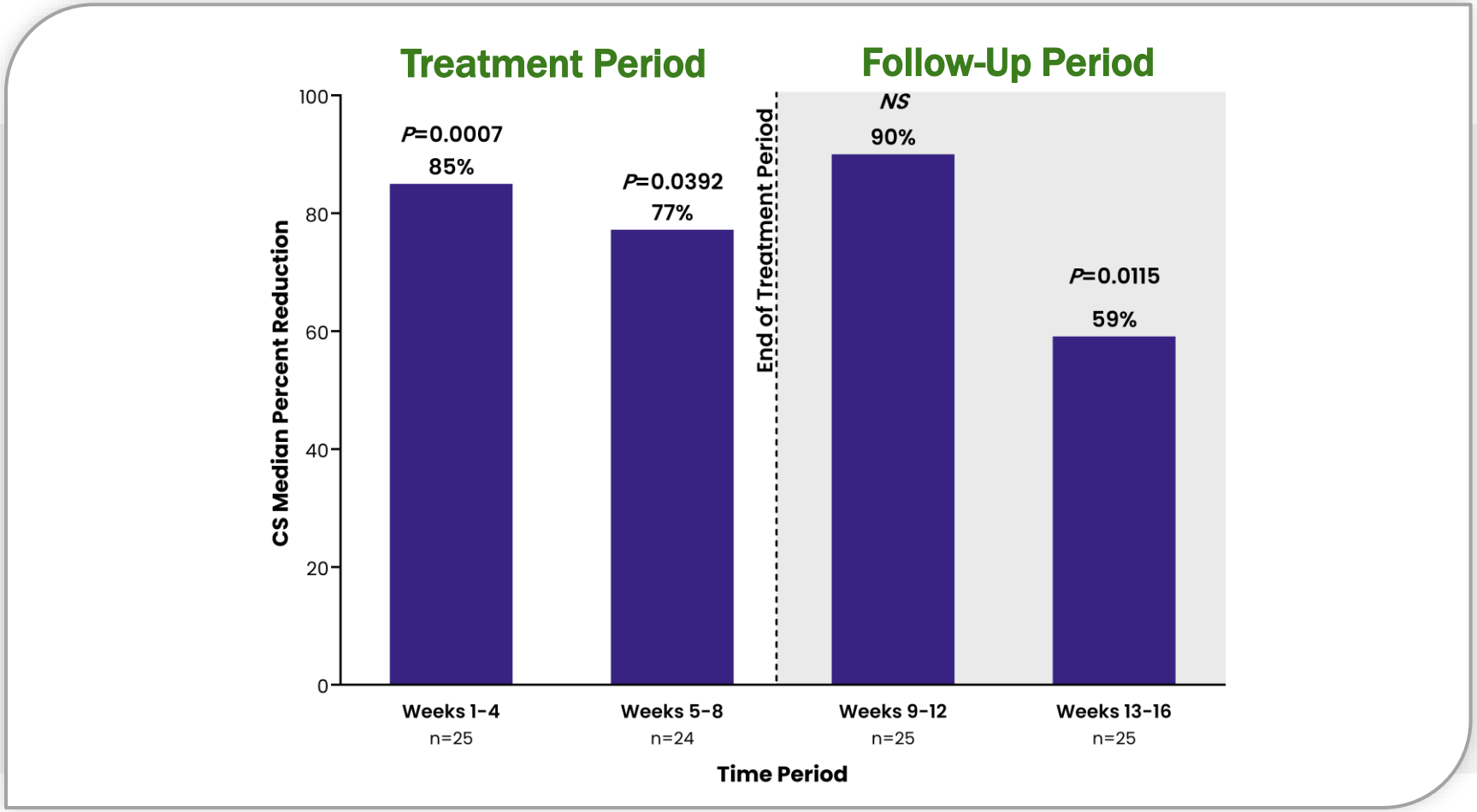
Significant and durable LE reduction, consistent with sustained RAP-219 exposures



Median percent change statistical comparisons used the Wilcoxon signed-rank test to determine if the median percentage change in LE from baseline was greater than 0%.
LE – long episode; RO – receptor occupancy.

Effect of RAP-219 on clinical seizures in follow-up period

Clinically meaningful reduction in clinical seizures throughout treatment and follow-up



Median percent change statistical comparisons used the Wilcoxon signed-rank test to determine if the median percentage change in CS from baseline was greater than 20%.
CS – clinical seizure; NS, not significant (*P*>0.05); RO – receptor occupancy.

Sustained treatment effect of RAP-219 over 16 weeks, consistent with RAP-219's long half-life and sustained exposures

	Treatment Period Weeks 1-8	Weeks 1-12 (Treatment Period Weeks 1-8 and Follow-up Period Weeks 9-12)	Weeks 1-16 (Treatment Period Weeks 1-8 and Follow-up Period Weeks 9-16)
Long Episodes Median Percent Reduction	71% (n=27, p=0.0001)	71% (n=27, p<0.0001)	69% (n=27, p=0.001)
Clinical Seizures Median Percent Reduction	78% (n=25, p=0.01)	75% (n=25; p=0.0068)	68% (n=25, p=0.0072)
100% Responders (Clinical Seizure Freedom)	24% (n=25, p<0.0001)	20% (n=25, p<0.0001)	12% (n=25, p<0.0001)

rapport™ therapeutics

Median percent reduction: Null hypothesis = 0.2 for CS and 0 for LE. 100% responder (CS) null hypothesis = 0.015. Weeks 1–12 and 1–16 analyses were post-hoc and not adjusted for multiplicity.

RAP-219 was generally well tolerated

10% discontinuation rate due to TEAEs

Safety Population	Treatment Period Weeks 1–8 (N=30)	Follow-Up Period Weeks 9–16 (N=30)
Any TEAE, n (%)	25 (83.3)	10 (33.3)
TEAE related to study drug	23 (76.7)	2 (6.7)
TEAEs by grade		
Grade 1 TEAE (mild)	15 (50.0)	7 (23.3)
Grade 2 TEAE (moderate)	10 (33.3)	0
Grade 3 TEAE (severe)	0	3 (10.0)*
TEAEs reported overall, in ≥10% of patients, n (%)		
Dizziness	8 (26.7)	0
Headache	6 (20.0)	0
Fatigue	4 (13.3)	0
Fall	3 (10.0)	1 (3.3)
Nausea	3 (10.0)	0
Somnolence	3 (10.0)	0
Memory impairment	2 (6.7)	1 (3.3)

TEAE Summary

- In the treatment period, 50% of patients experienced mild AEs; 33% of patients experienced moderate AEs
- No falls were considered related to RAP-219; reports of memory impairment occurred in patients with baseline memory impairment
- 3 patients experienced SAEs; all deemed by investigator to be unrelated to RAP-219
- In the treatment period, 3 (10%) patients discontinued RAP-219 due to TEAEs: Grade 1 worsening of preexisting memory impairment, Grade 1 panic attack, Grade 2 worsening of preexisting anxiety
- No clinically meaningful laboratory, vital signs, or ECG abnormalities

rapport™ therapeutics

*All three grade 3 events met SAE criteria due to hospitalization and were assessed by the investigator as unrelated to study drug.
TEAE – treatment-emergent adverse event.
TEAEs were reported during the Study Period (Treatment Period [Weeks 1–8] and Follow-Up Period [Weeks 9–16]).

Emerging best-in-class profile potential for RAP-219 in FOS, with commercial opportunity with >$2 billion in US, if approved

Potential for Best-in-Class Efficacy

Phase 2a results demonstrated statistically significant reductions in long episodes and clinical seizures

Generally Well Tolerated

All TEAEs were mild or moderate

10% discontinuation rate

Ease of Use

Once daily dosing, rational polypharmacy potential, low risk of drug-drug interactions (DDIs), and long half-life

Long-Acting Injectable (LAI)

Developing first ever LAI for epilepsy patients, providing IP extension leading to potential commercial upside

Strong interest from both epileptologists and neurologists[a]

- Highly favorable HCP reception to RAP-219 profile
- The magnitude of seizure reduction (78%) and seizure freedom at 8 weeks (24%) repeatedly cited as meaningful and key differentiators
- Stated desire for early-line use

> *"This is very good; seizure reduction at week eight is 78%, which is very encouraging. Looking in a little more detail, greater than 75% seizure reduction at week eight was achieved in 56% of patients, that is encouraging."*
>
> – US epileptologist

rapport™ therapeutics

[a]Data on file at Rapport (market research of >100 epileptologists and neurologists)

Phase 2a data support advancement into Phase 3 FOS registrational trials

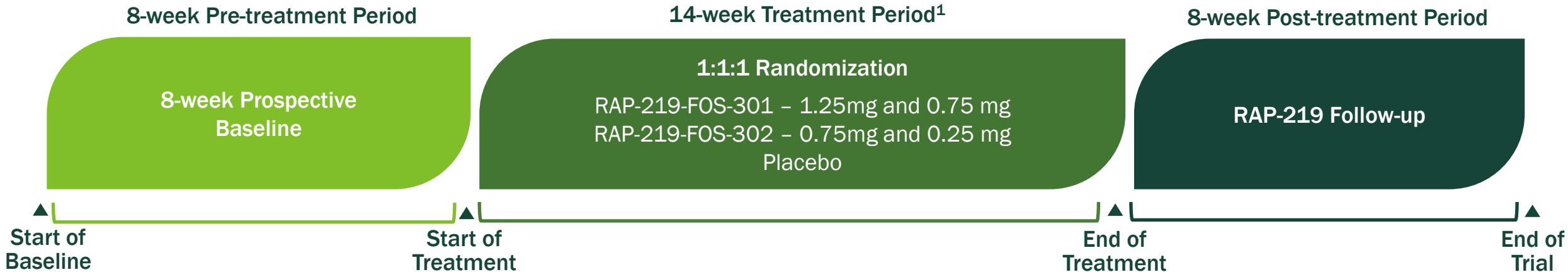
- Topline results reported September 2025; additional analyses presented at Annual Epilepsy Society (AES) meeting
- Successfully completed end-of-Phase 2 (EOP2) FDA meeting in December 2025
- Initiated open-label, long-term safety trial

→ Initiating Phase 3 FOS program in 2Q 2026
  - Two global, multi-center, placebo-controlled clinical trials
  - Traditional clinical seizure primary endpoint, measured by seizure diary

→ Community enthusiasm provides tailwinds for trial
  - Strength of Phase 2a data
  - Novel mechanism
  - Ease-of-use and no reported DDI

→ Progressing registrational/NDA-enabling activities

RAP-219 Phase 3 clinical trials in FOS



Population

- Drug-resistant FOS
- N = ~320 in each trial

Dosing Levels, Duration of Treatment and Follow-up

- Evaluating 3 doses, representing RO from 50-85%
- 12-week maintenance treatment period following titration
- 8-week follow-up period (or rollover to open-label extension)

Open-label Extension (OLE)

- Patients enrolling in OLE long-term safety trial will stay on drug and not enter follow-up

Primary Endpoint (US-FDA)

- Percent change from baseline in clinical seizure frequency as measured by clinical seizure diaries, RAP-219 vs placebo

Key Secondary Endpoints

- Responder rate, RAP-219 vs placebo (≥50% reduction in seizures from baseline) (EMA primary endpoint)
- Longest seizure-free period, RAP-219 vs placebo

Safety Monitoring

- TEAEs collected from consent to last visit

rapport™ therapeutics

[1] 12-week maintenance treatment follows titration period of up to 8 days

Expanding RAP-219 into Primary Generalized Tonic-Clonic Seizures (PGTCS)

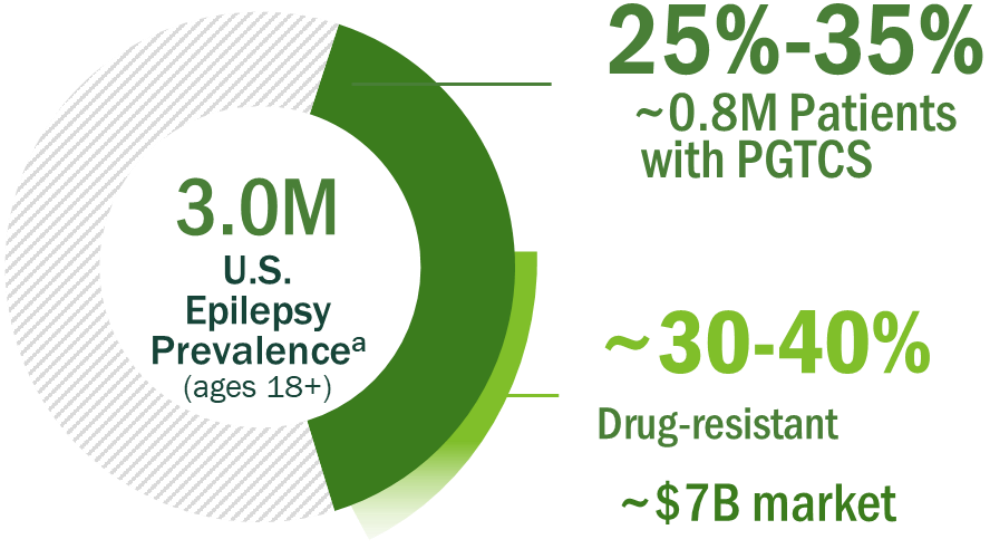
Opportunity for highly differentiated PGTCS treatment

Today's Standard of Care

Few treatment options with limited efficacy: ~6 drugs approved for PGTCS; 30-40% drug-resistance

Potential for SAEs: liver failure, SJS, DRESS, QT prolongation

Mortality risk: uncontrolled PGTCS increase SUDEP risk



Potential for RAP-219

Robust clinical data in FOS: 78% clinical seizure reduction

Generally well tolerated: with 10% discontinuation rate

Easy to administer: with once daily dosing; low risk of drug-drug interactions

Long half-life and potential long-acting injectable: may reduce breakthrough seizure risk

Planning single, multi-center, placebo-controlled Phase 3 registrational trial

rapport therapeutics™

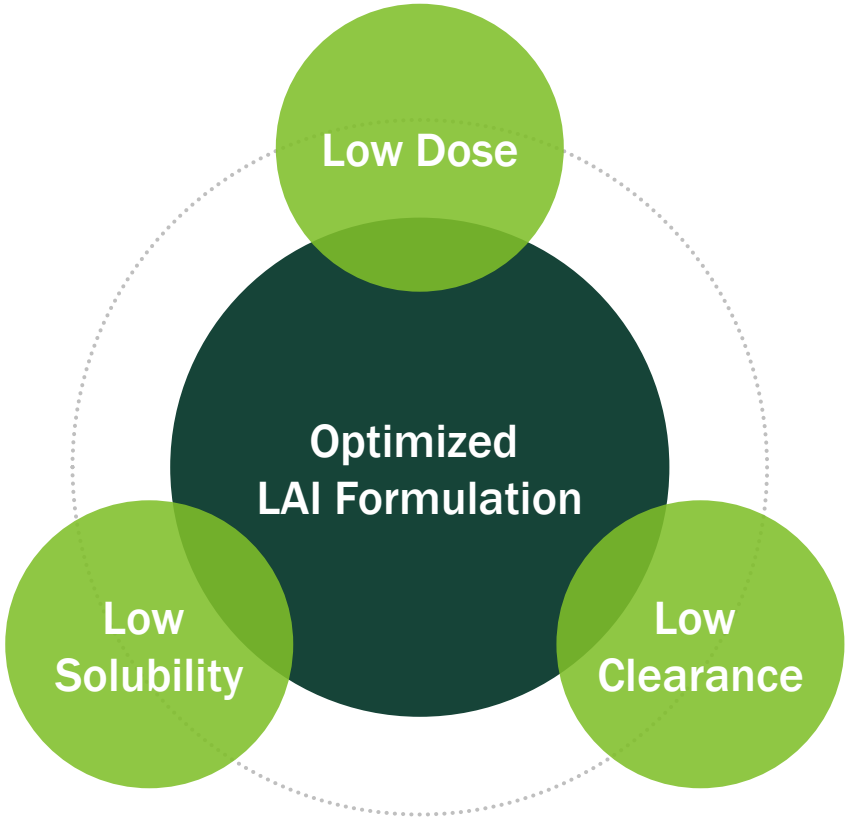
SJS - Stevens-Johnsons Syndrome; SUDEP - Sudden Unexpected Death in Epilepsy (SUDEP)

RAP-219 Life Cycle Extension through Long-acting Injectable

rapport™ therapeutics

RAP-219 properties are ideal for LAI formulation

Factors Driving Long-Acting Injectable Suitability



RAP-219 LAI Formulation in Development for Once-Monthly Subcutaneous Administration

- Candidate formulation achieved all phase-appropriate TPP attributes
- LAI provisional patent filed
- IND-enabling activities underway to support Phase 1 clinical trial in healthy volunteers

> "I think that it will be used, and if it works like the [RAP-219 target product profile] says, that's going to be a great advance for patients with epilepsy."
>
> – US Neurologist[a]

rapport™ therapeutics

[a]Data on file at Rapport (market research of >100 epileptologists and neurologists)

RAP-219 long-acting injectable (LAI) is an important lifecycle management opportunity

Desired Clinical Benefits

- Potential to transform epilepsy standard of care and offer new option for bipolar mania patients
- Improved adherence could facilitate greater protection against breakthrough seizures and prevention of bipolar mood relapse
- Potential for at-home administration and reduced pill burden

Franchise Benefits

- Lifecycle opportunity for RAP-219; expected to extend exclusivity into late 2040s
- LAIs have strong track record in neuropsychiatry with history of multi-blockbuster success
- Potential to develop multiple generations of LAI products with varying administration frequency

RAP-219 in Bipolar Mania

Bipolar mania is characterized by episodes involving marked mood changes and increased energy

A single weeklong manic episode—or one requiring hospitalization—meets diagnostic criteria; disorder is considered lifelong, with most patients experiencing multiple episodes throughout life

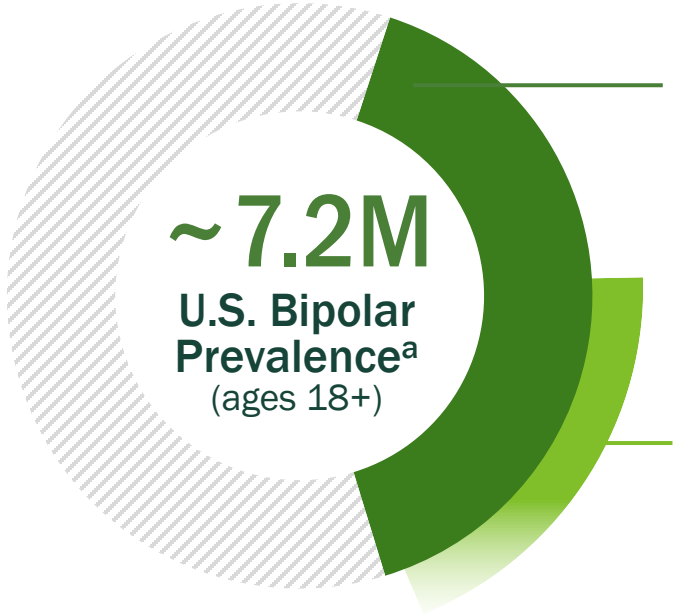
Bipolar disorder confers a **high lifetime suicide risk** of 10-20%; 5 times greater in males

Patients also have **higher risk of premature mortality** as they are prone to coronary heart disease, chronic obstructive pulmonary disease, diabetes mellitus, and influenza or pneumonia

Common Manic Episode Symptoms

- Inflated self-esteem or grandiosity
- Decrease need for sleep
- More talkative
- Flight of ideas or racing thoughts
- Distractibility
- Increase in goal-directed actions
- Excessive involvement in risk taking activities

Bipolar mania is a common psychiatric disease with significant need for well-tolerated, effective treatments



~2.9M
Diagnosed Patients[b]

~1.5M
Bipolar Mania Patients
~$40B market

Limitations of Standard of Care

Tolerability issues: metabolic and neurological side effects including weight gain and cognitive impairment often lead to early discontinuation of medication

Limited efficacy: need for drugs with placebo-adjusted ≥6 YMRS reduction

Potential for serious adverse events: antipsychotics associated with extensive warnings and precautions—boxed and non-boxed—and confer risk of drug-drug interactions

Low adherence: medication intolerance leads to poor compliance with medication and high risk of relapse

~50% of bipolar patients are treated with ASMs in combination with lithium at first-line or used second-line[c]

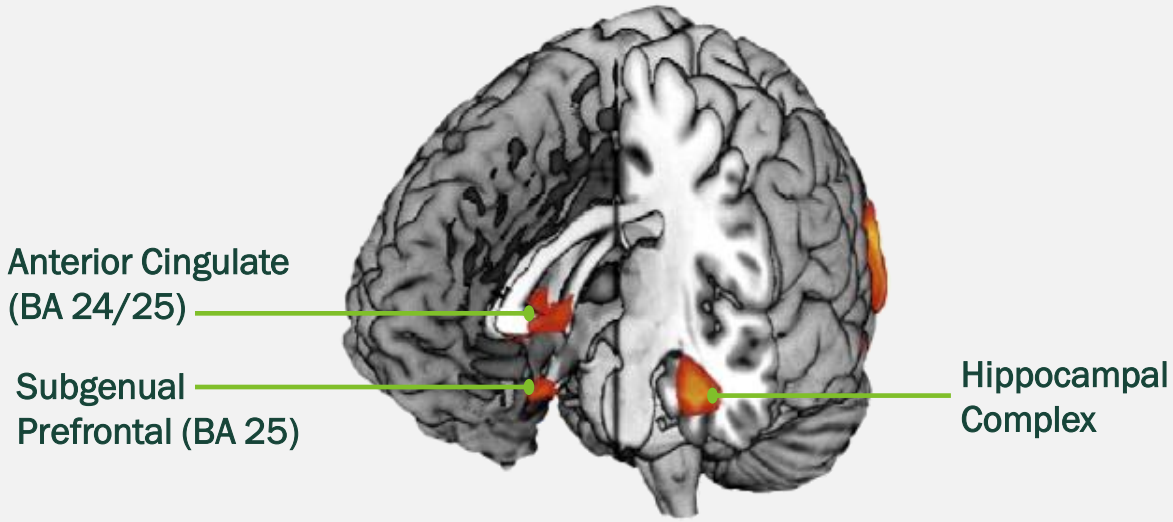
rapport™ therapeutics

[a]https://www.nimh.nih.gov/health/statistics/bipolar-disorder. [b]Internal market research (Trinity, 2023). [c]https://pmc.ncbi.nlm.nih.gov/articles/PMC12404890/

RAP-219 circuit-selective approach to bipolar mania

Targets glutamatergic hyperactivity in cortico-limbic networks

Increased Cerebral Metabolism in Manic Patients Relative to Healthy Controls

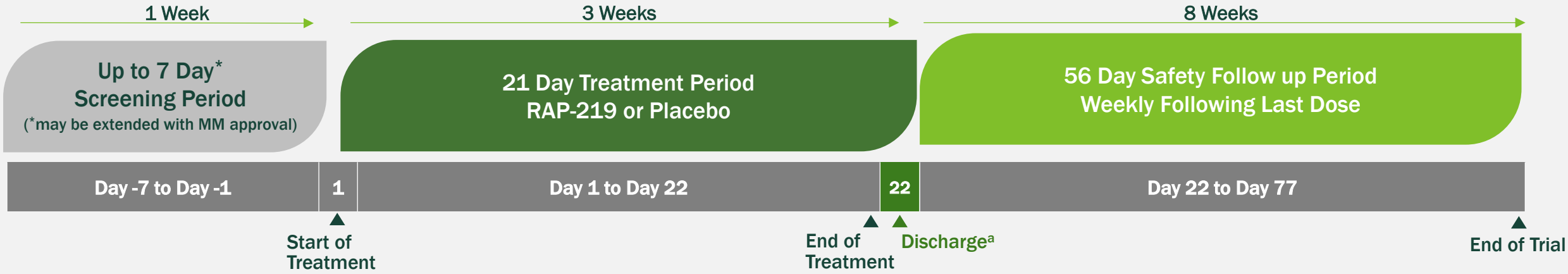


- Bipolar mania is characterized by **increased glutamate levels and hypermetabolism** in cortico-limbic networks[a]
- Glutamate signaling is primarily **mediated by AMPA receptors**, which accounts for most fast excitatory transmission in the brain[b]
- Lithium, valproate, and lamotrigine - **approved therapies for bipolar** - act in part by attenuating glutamatergic transmission, including reducing glutamate release and downregulating AMPA receptor function[c]
- **RAP-219 selectively modulates TARPγ8-dependent AMPA receptor activity**, potentially reducing excitatory glutamatergic drive in limbic neuronal populations that correspond to manic network hyperactivity

rapport™ therapeutics

[a]J.O. Brooks III et al. / Psychiatry Research: Neuroimaging 181 (2010) 136–140; Yüksel, C., & Öngür, D. (2010). Magnetic resonance spectroscopy studies of glutamate-related abnormalities in mood disorders. Biological Psychiatry, 68(9), 785–794. [b]Traynelis et al., Pharmacol Rev 2010; [c]Du J et al., J Neurosci 2008; Lee CY, Fu WM, Chen CC, Su MJ, Liou HH. Lamotrigine inhibits postsynaptic AMPA receptor and glutamate release in the dentate gyrus. Epilepsia. 2008 May;49(5):888-97.

Phase 2 proof-of-concept trial in bipolar mania



Key Entry Criteria

- Meets the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) diagnosis of bipolar I disorder, with or without mixed features, with or without psychotic symptoms, as confirmed by the Structured Clinical Interview for DSM-5, Clinical Trials Version (SCID-5-CT)
- At least one prior documented manic episode (with or without psychotic symptoms) that required treatment, within 5 years prior to Visit 1

Key Endpoints

- Change from baseline to Week 3 in Young Mania Rating Scale (YMRS) total score
- Change from baseline to Week 1 in YMRS total score
- Change from baseline to Week 3 in Clinical Global Impressions–Bipolar Version (CGI-BP) Severity of Illness-Mania score

Dose Regimen: Participants randomized 1:1:2 to RAP-219 with 2-day titration, RAP-219 with 4-day titration, or placebo

- 0.25mg x 1 day, 0.5mg x 1 day, 0.75mg x 19 days
- 0.25mg x 2 days, 0.5mg x 2 days, 0.75mg x 17 days

rapport™ therapeutics

NCT07046494; [a]If a participant does not meet all discharge criteria; the Investigator may reassess at their discretion for up to 1 week following the last dose or may transfer the participant to an appropriate care center in accordance with standard of care.

nAChR Programs

α6β4 in Chronic Pain and Migraine
α9α10 in Hearing and Vestibular Disorders

rapport™ therapeutics

Use of RAPs enables targeting of diverse nicotinic receptors

α6β4 nAChR

Expressed selectively in sensory neurons position it as a genetically-validated precision non-opiate non-CNS target for pain and migraine

α9α10 nAChR

Expressed selectively in auditory and vestibular and hair cells position it as a genetically-validated precision target for hearing and vestibular disorders

- Pan nAChR agonists are clinically validated in pain
- A broad-spectrum nicotinic agonist (ABT-594[a]) a was effective in a Phase 2 diabetic neuropathic pain trial – tolerability prevented further development
- Studies identified α6β4 as the nAChR subtype that mediates nicotine and ABT-594 analgesia – a drug specific for this sensory neuron target should be better tolerated than previous nAChR approaches
- Rapport's platform unlocked the α6β4 target and enabled us to create potent and selective first in class α6β4 agonist compounds
- Rapport's α6β4 agonist candidate showed robust efficacy in translatable models of pain and migraine
- IND-enabling activities underway

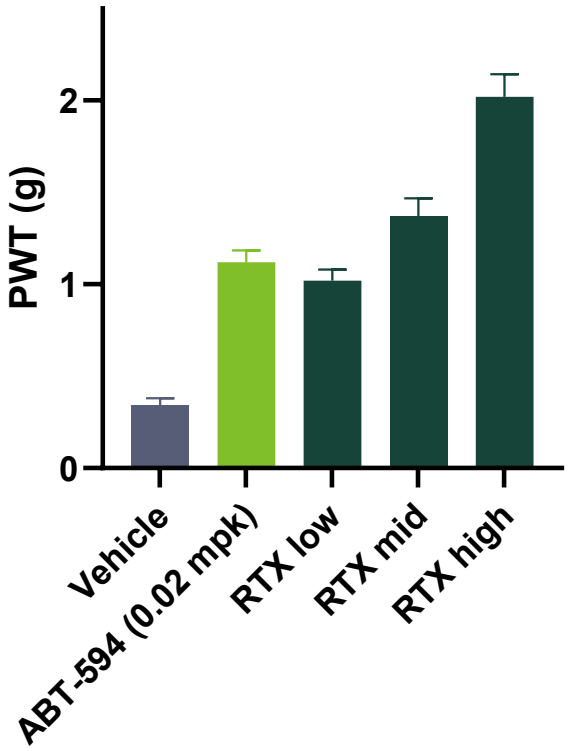
rapport™ therapeutics

[a] ABT-594: a non-selective neuronal nAChR agonist developed by Abbott with robust efficacy in preclinical pain models and a Ph2 trial of diabetic peripheral neuropathic pain

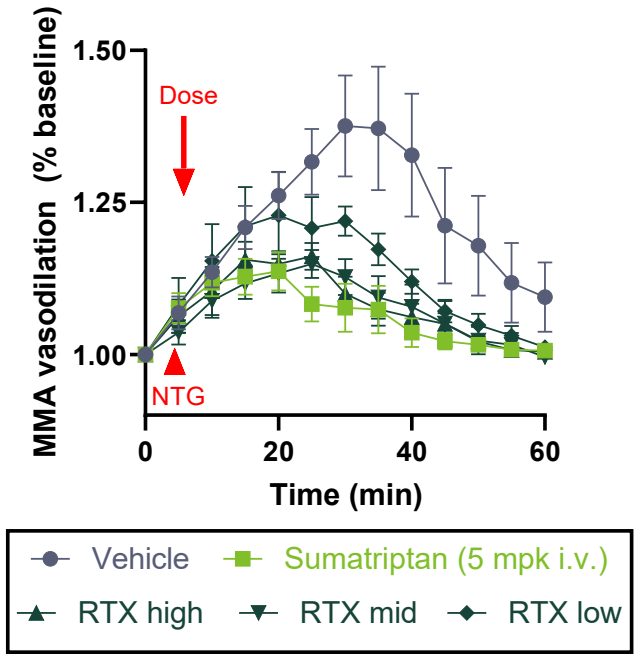
α6β4 nicotinic receptor: a precision non-opiate non-CNS target for pain relief

Rapport Selective α6β4 Agonist (RTX) Exhibited Robust Activity in Preclinical Pain Models

Peripheral nerve injury model



Migraine model



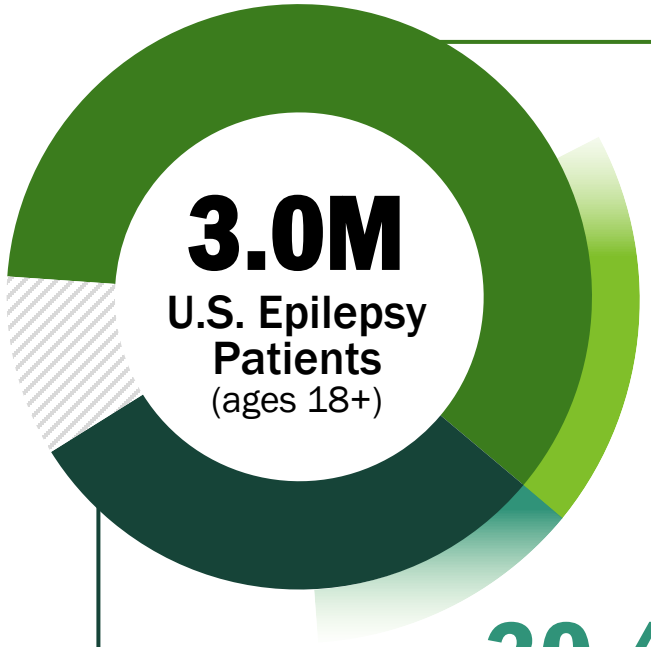
rapport™ therapeutics

Market Opportunity & Milestones

rapport™ therapeutics

Growing epilepsy and neurological disorder franchise (U.S.)

Epilepsy



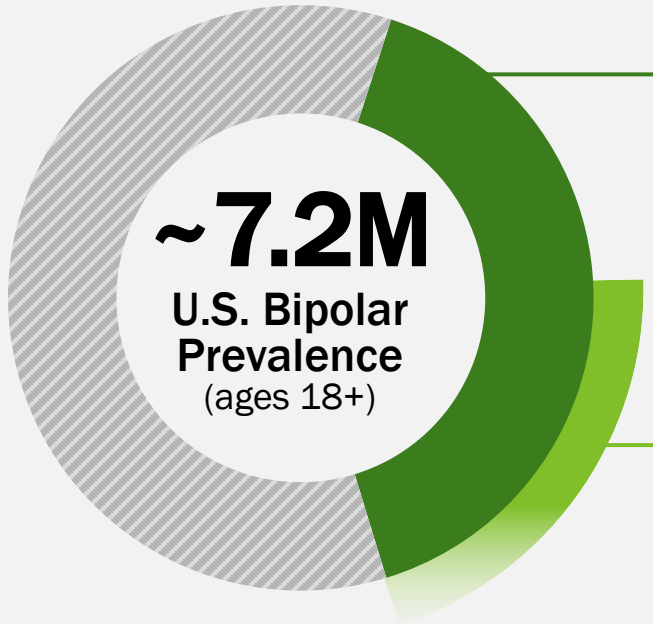
60%
1.8M Focal Onset Seizure Patients

30-40%
Drug-resistant
~$15B market

25-35%
~0.8M
Patients with PGTCS

~30-40%
Drug-resistant
~$7B market

Bipolar



~2.9M
Diagnosed Patients

~1.5M
Bipolar Mania Patients
~$40B market

Long-acting injectable: *durable revenue across indications; extends exclusivity into late 2040s*

rapport™ therapeutics

Multiple anticipated catalysts over next 24 months

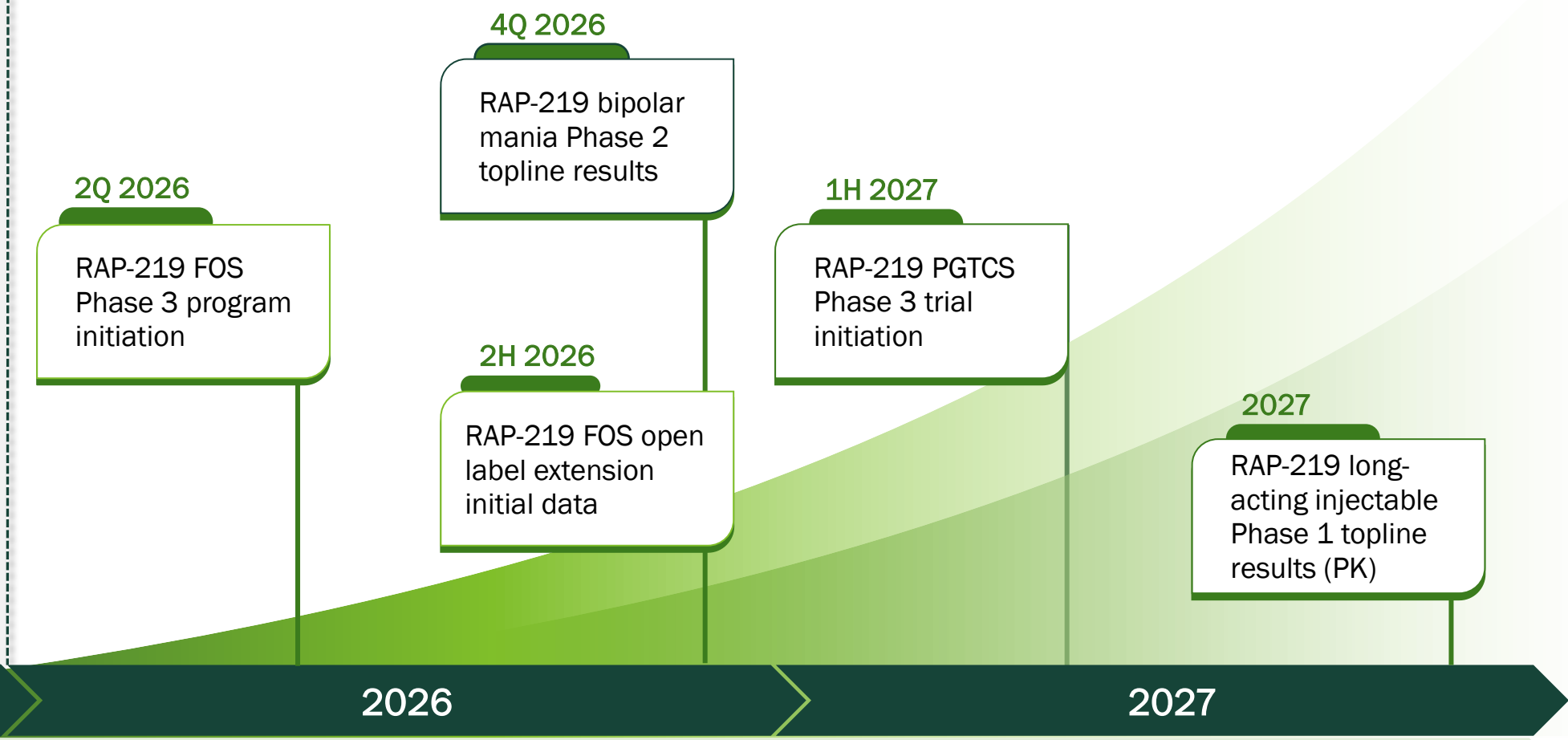
Cash balance of $476.8M (as of 3/31/26) supports Rapport into 2H 2029

RAP-219 Epilepsy Portfolio

- RAP-219 Phase 2a FOS trial topline data and 8-week follow-up results announced
- RAP-219 FOS open-label long-term safety trial initiated
- RAP-219 NDA-enabling activities underway
- LAI IND-enabling activities underway

RAP-219 Bipolar Program

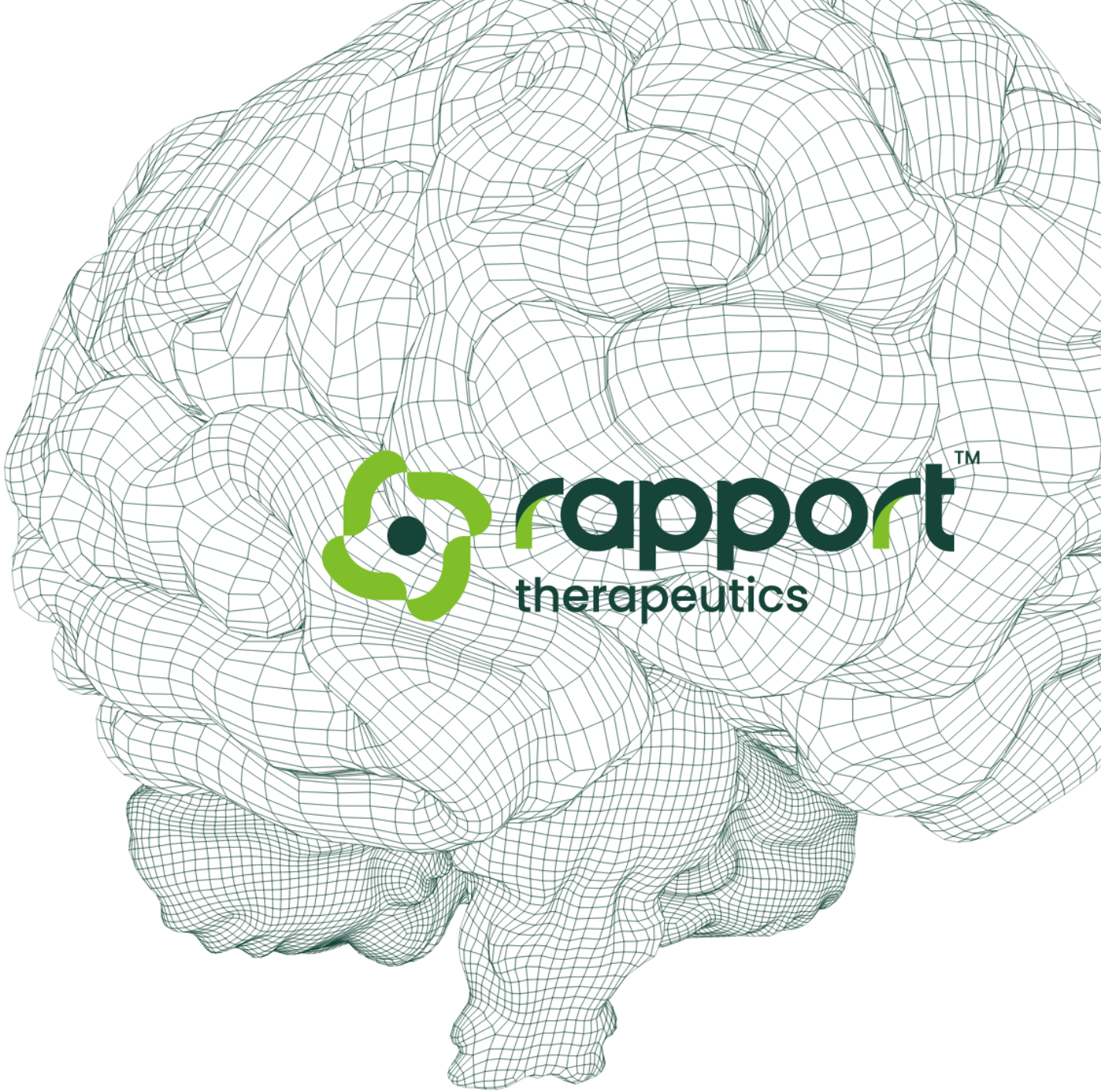
- RAP-219 Phase 2 bipolar mania trial initiated



Additional catalysts: α6β4 Phase 1 trial initiation

rapport™ therapeutics

Appendix



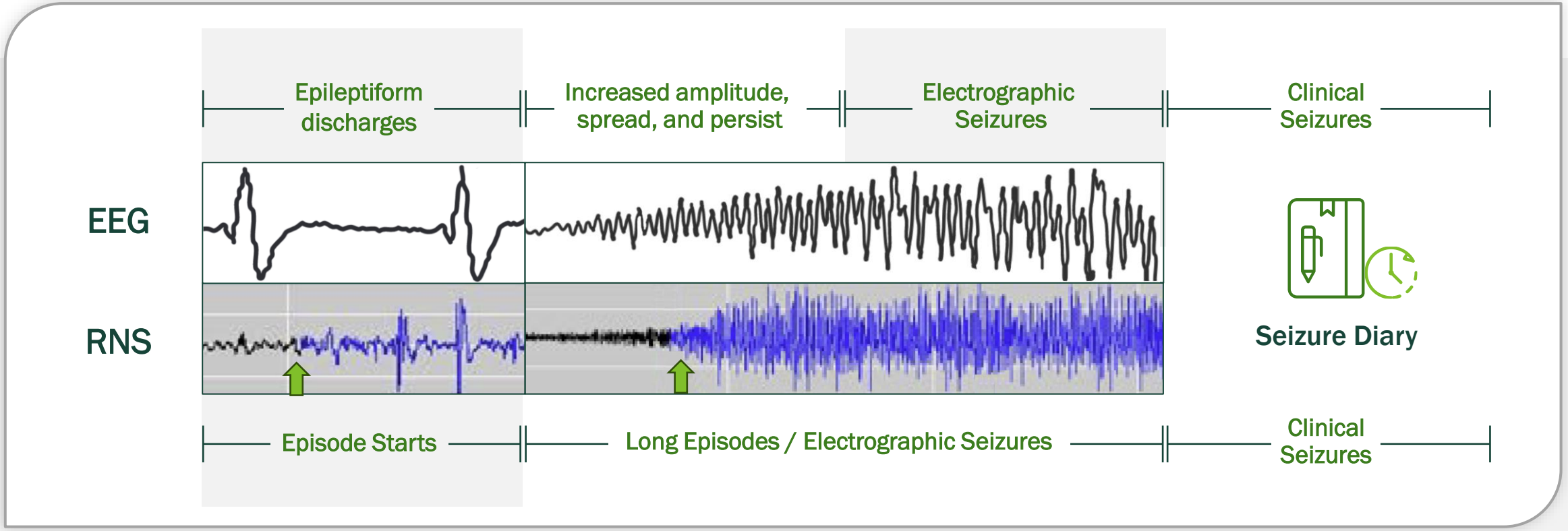
RAP-219 possesses potentially optimal drug properties for an ASM

Potency at TARPγ8	✓	IC_{50} ~ 100 pM
Selectivity vs. other TARPs, NMDAR	✓	>4,000X target affinity
Selectivity vs. CEREP and kinase panels	✓	>10,000X target affinity
PK	✓	Orally bioavailable | %F = 80-100
Brain penetration	✓	Brain/plasma ~70%
DDI/CYP inhibition/CYP induction	✓	>10,000 X target affinity. Not CYP substrate
Solubility/permeability	✓	BCS Class I
Target receptor occupancy	✓	50% RO at <50 µg/kg oral dose in rodent
Preclinical safety	✓	NOAEL in top dose of IND enabling studies
Non-sedating	✓	No effects at exposures 1000X EC_{50}

rapport™ therapeutics

NMDAR: N-methyl-D-aspartate receptor; DDI: drug-drug interactions; BCS: Biopharmaceutics Classification System; NOAEL: No Observed Adverse Effect Level.

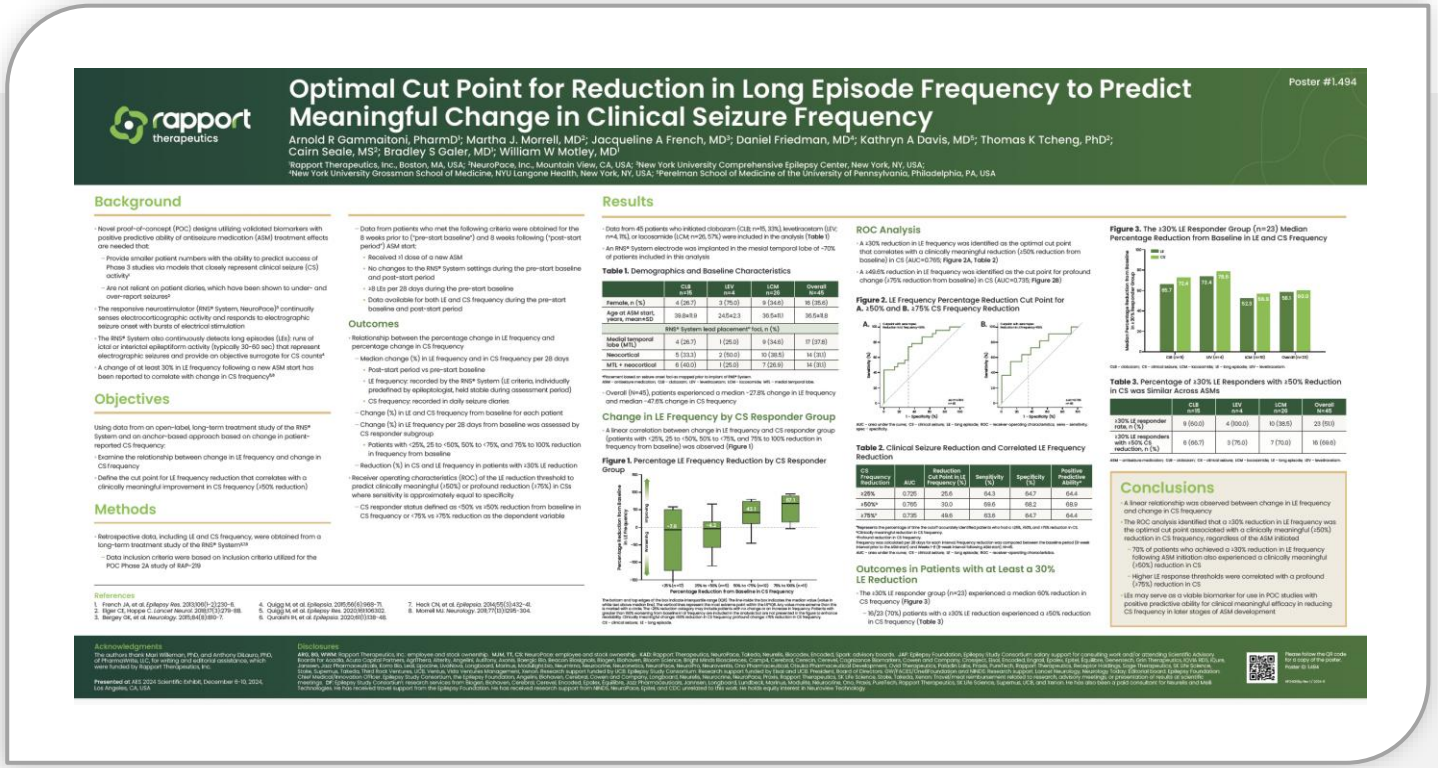
Progression of epileptiform activity to clinical seizures



RNS measures and stores episode starts and long episodes in real time, all the time

Well-established relationship between long episode and clinical seizure responder rates

- Skarpaas (2018)[a]: significant correlation exists between reduction in long episodes and clinical seizure frequency
- Quraishi (2020)[b]: ASMs resulting in a ≥ 20% decrease in long episodes were clinical efficacious (≥ 50% reduction in seizures)
- Gammaitoni (2024)[c]: ASMs resulting in a ≥ 30% reduction in LEs were associated with a ≥ 50% reduction in clinical seizures



Optimal Cut Point for Reduction in Long Episode Frequency to Predict Meaningful Change in Clinical Seizure Frequency

Poster #1.494

Arnold R Gammaitoni, PharmD[1]; Martha J. Morrell, MD[2]; Jacqueline A French, MD[3]; Daniel Friedman, MD[4]; Kathryn A Davis, MD[5]; Thomas K Tcheng, PhD[2]; Cairn Seale, MS[2]; Bradley S Galer, MD[1]; William W Motley, MD[1]

[1]Rapport Therapeutics, Inc., Boston, MA, USA; [2]NeuroPace, Inc., Mountain View, CA, USA; [3]New York University Comprehensive Epilepsy Center, New York, NY, USA; [4]New York University Grossman School of Medicine, NYU Langone Health, New York, NY, USA; [5]Perelman School of Medicine of the University of Pennsylvania, Philadelphia, PA, USA

Background

Objectives

Methods

Results

Conclusions

- A linear relationship was observed between change in LE frequency and change in CS frequency
- The ROC analysis identified that a ≥30% reduction in LE frequency was the optimal cut point associated with a clinically meaningful (≥50%) reduction in CS frequency, regardless of the ASM initiated
  - 70% of patients who achieved a ≥30% reduction in LE frequency following ASM initiation also experienced a clinically meaningful (≥50%) reduction in CS
  - Higher LE response thresholds were correlated with a profound (≥75%) reduction in CS
- LEs may serve as a viable biomarker for use in POC studies with positive predictive ability for clinical meaningful efficacy in reducing CS frequency in later stages of ASM development

[A] Skarpaas et al., Epilepsy & Behavior 83 (2018); [b] Quraishi et al., Epilepsia 61 (2020); [c] Gammaitoni et al, American Epilepsy Society (AES) 2024 Annual Meeting, Poster #1.494.