RADIANT topline

August 4, 2025

Forward-looking statements

This presentation may contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 relating to our business, operations, and financial conditions, including but not limited to express or implied statements regarding the current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, statements regarding the estimated market for our product candidates, if approved, our development plans, our preclinical and clinical results and other future conditions, including our cash runway, and the safety, efficacy, and regulatory and clinical design or progress, potential regulatory submissions, approvals and timing thereof of any of our product candidates. Any forward-looking statements in this presentation are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this presentation, including, without limitation, risks relating to: (i) the success and timing of our ongoing clinical trials, (ii) the success and timing of our product development activities and initiating clinical trials, (iii) the success and timing of our collaboration partners' product development activities, (iv) the timing of and our ability to obtain and maintain regulatory approval of any of our product candidates, (v) our plans to research, discover and develop additional product candidates, (vi) our ability to enter into collaborations for the development of new product candidates, (vii) our ability to establish manufacturing capabilities, and our collaboration partners' abilities to manufacture our product candidates and scale production, (viii) our ability to meet any specific milestones set forth herein, and (ix) the potential addressable market sizes for product candidates. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. Accordingly, readers are cautioned not to place undue reliance on these forward-looking statements.

For further information regarding the risks, uncertainties and other factors that may cause differences between our expectations and actual results, you should review the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2024 filed with the Securities and Exchange Commission ("SEC") and our other filings with the SEC.

Certain information contained in this presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and our own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this presentation, we have not independently verified, and make no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, all of the market data included in this presentation involves a number of assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

Positioned to bring innovation to patients with CNS disorders

4

Assets in late stage

5

Clinical readouts in next 4 quarters

2

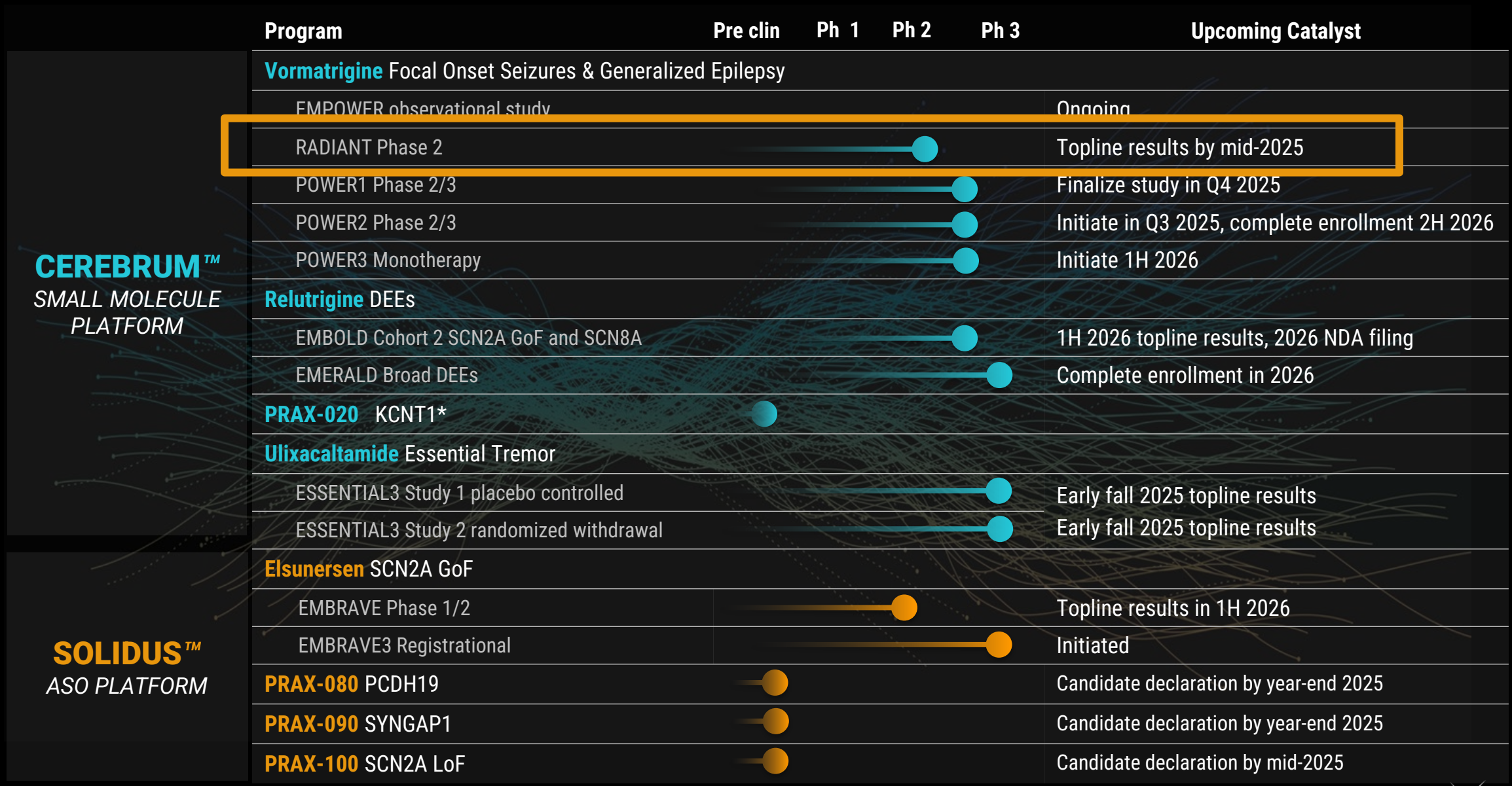
Discovery platforms to optimize drug development

into

2028

Cash runway

Praxis pipeline and upcoming catalysts



*PRAX-020 (KCNT1) has been licensed to UCB
DEE=developmental & epileptic encephalopathy, GoF=gain-of-function, LoF=loss-of-function

Focal epilepsy is a serious medical condition with inadequate therapeutic options impacting approximately 3M patients in the US

Epilepsy is a chronic neurological disorder that affects all age groups, causing life-threatening seizures

63% of patients require multiple ASMs[1]

Patients need a new therapy:

- That is tolerable so they adhere and can maintain Quality of Life
- That is fast acting, simple to take and durable
- That stops ASM cycling

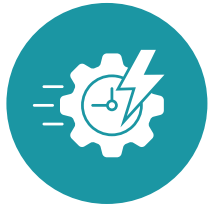
1. Praxis Claims Analysis on File 2024. FOS patient cohort (n = 440k)
ASM: Anti-Seizure Medication

Vormatrigine is poised to quickly transform the epilepsy landscape

Superior Efficacy

Best-in-disease efficacy in the RADIANT study

Ease of Administration



Once daily dose, fast acting

No need to be taken with food or require dietary changes

Ideal Tolerability and Limited DDIs

No expected restrictions with co-administration with other ASMs or common contraceptive agents

Sources:
-AAN 2023 Poster - PRAX-628: A Novel Sodium Channel Blocker with Greater Potency and Activity Dependence Compared to Standard of Care; Kahlig, K., Chapman, M., Petrou, S.
-AAN 2024 Poster - First-in-human Phase 1 Clinical Trial Evaluating the Safety, Tolerability, Pharmacokinetics and Food Effect of Vormatrigine in Healthy Participants; Hansen, K.; Frizzo, S., Jacotin, H., Patel, D., Epstein, N., Patel, A., Sun, H., Petrou, S., Souza, M.

RADIANT Best-in-class execution in epilepsy

Full dataset for focal and generalized expected by Q4 ~75 patients*

99 Patients Screened → 61 patients dosed to date** → 37 patients included in today's read-out

Foundation of the safety database and generalized proof-of-concept

Proven recruitment engine -> scalable across the ENERGY program

Best-in-disease efficacy

* Includes patients currently in screening
** As of July 25, 2025 cut-off

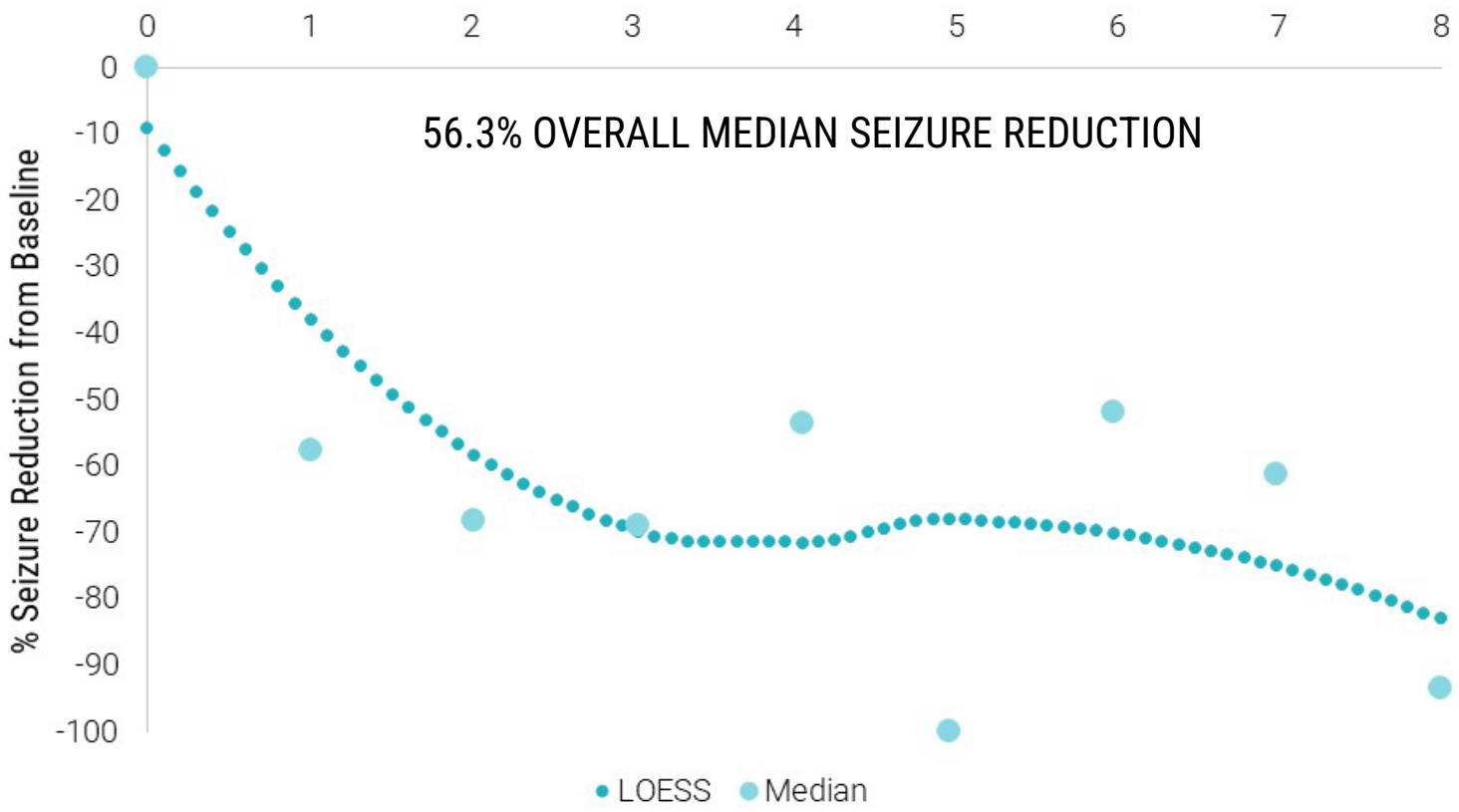
RADIANT patients represent the real-world refractory group

		N=37
Age (Years)	Mean (SD)	43.1 (12.78)
Sex	M,F	14,23
# background ASMs	Mean (SD)	2.2 (0.81)
Concomitant ASM	Sodium Channel Blocker SV2A GABA modulators Others	81% 65% 30% 5%
Baseline seizure	Median (IQR)	12 (5,25)

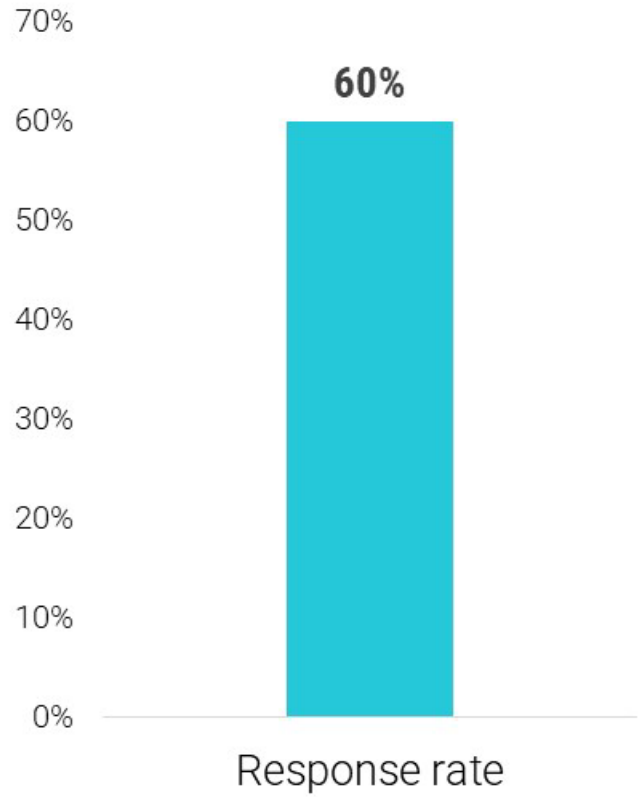
NCT#06908356
QD = Once daily

Vormatrigine effect in RADIANT: Best-in-Disease Efficacy

MEDIAN % SEIZURE REDUCTION BY WEEK



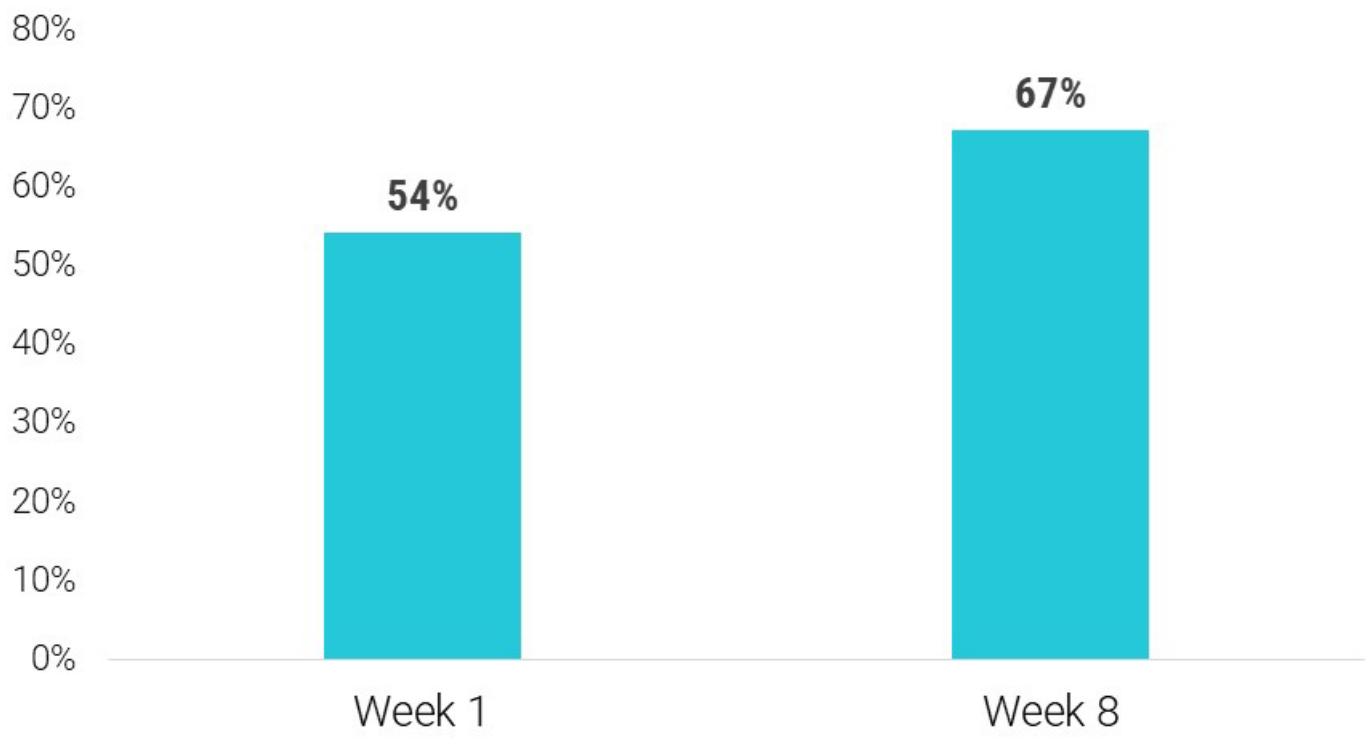
PATIENTS WITH ≥50% REDUCTION



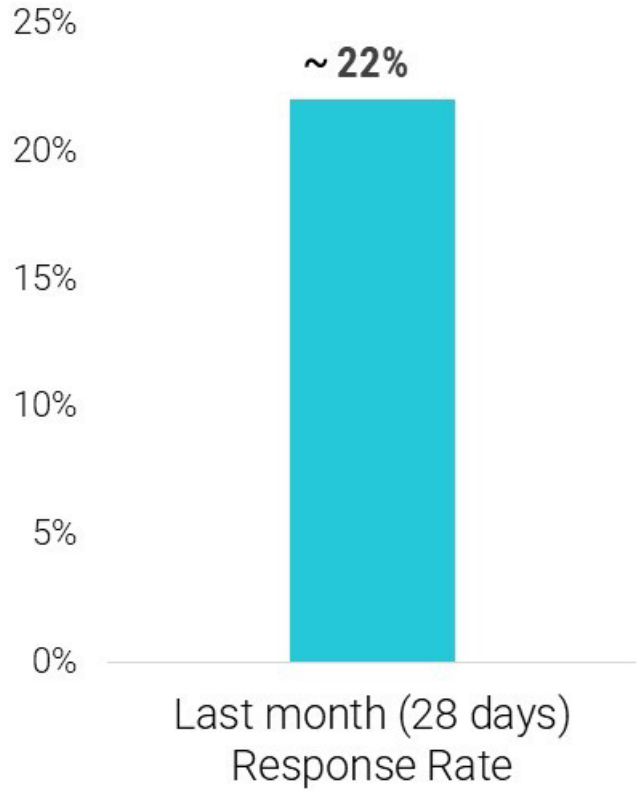
Wilcoxon sign test p<0.05 in all weeks and overall; LOESS: Locally weighted plot smoothing

Rapid, durable and expanding response from beginning to end of study

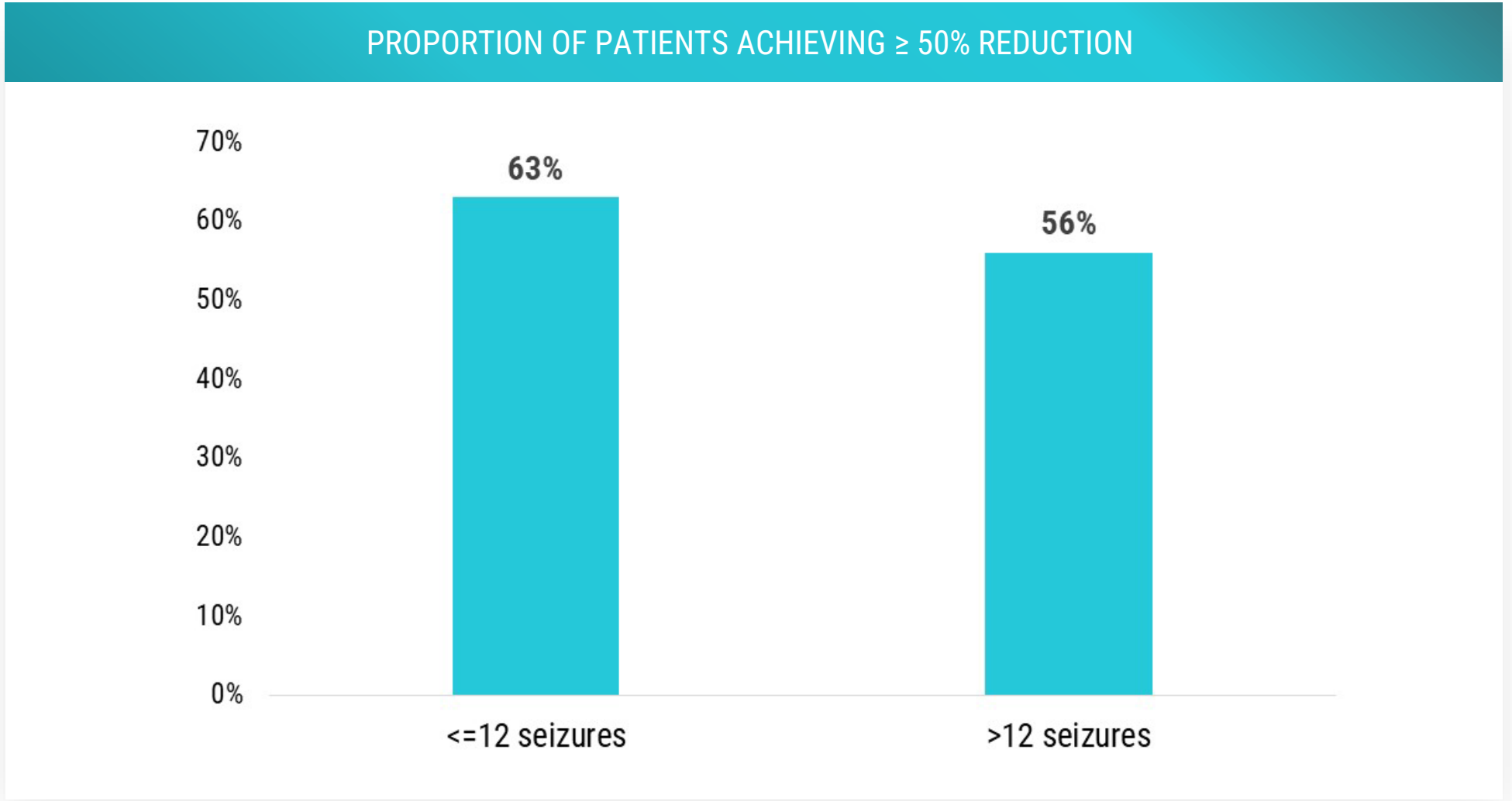
PROPORTION OF PATIENTS ACHIEVING ≥50% REDUCTION



PATIENTS WITH 100% REDUCTION

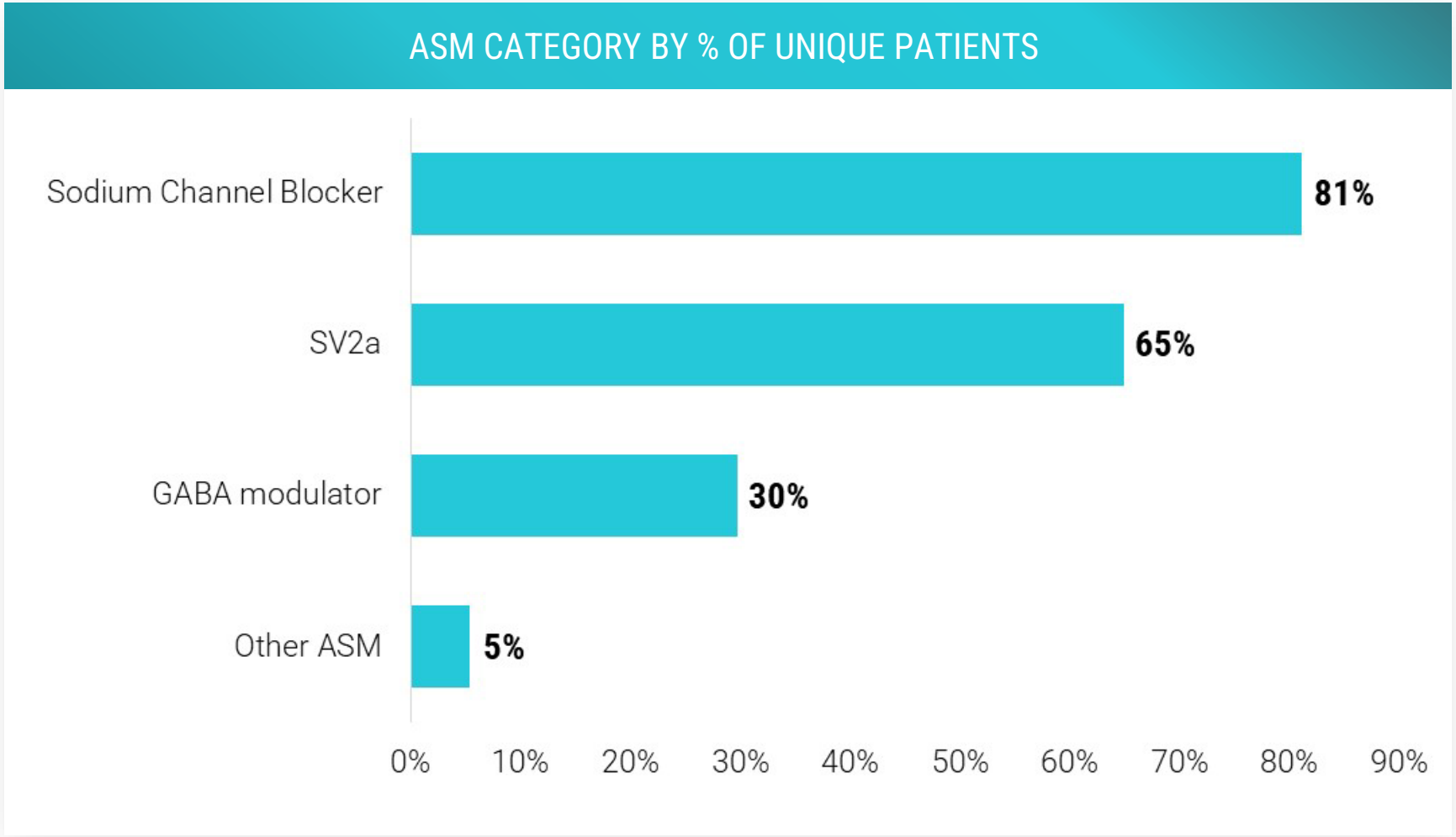


Significant response independent of baseline seizure burden



Seizure cut defined by baseline median

Most challenging ASM background to demonstrate effect in any focal epilepsy study



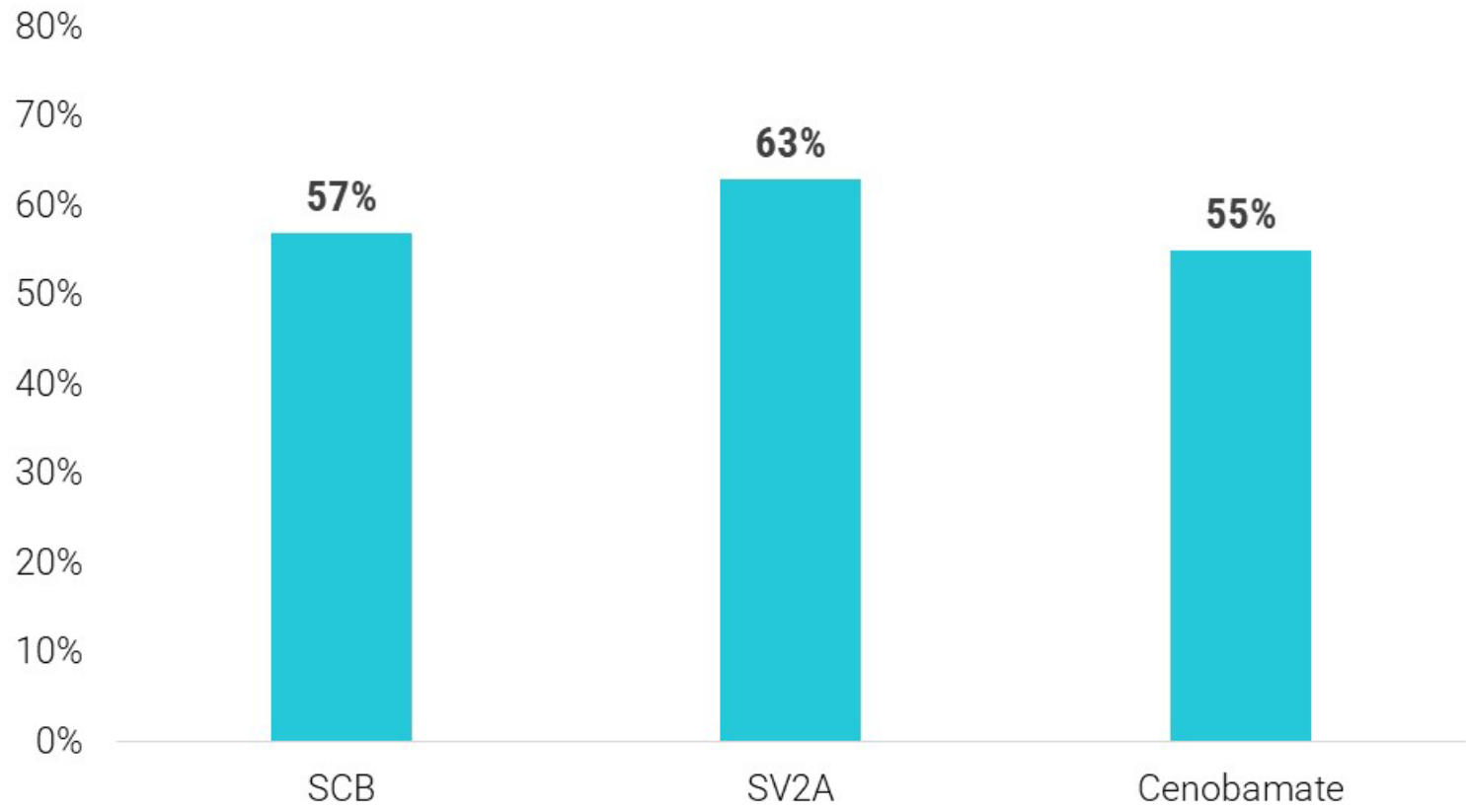
30% of patients on cenobamate

SV2a: Synthetic vesicle protein 2A

PRAXIS

Response rate maintained over best current treatment

PROPORTION OF PATIENTS ACHIEVING ≥ 50% REDUCTION ON TOP OF MAJOR BACKGROUND ASM



Vormatrigine was generally well tolerated, with no new safety signals

	SAFETY POPULATION VORMATRIGINE 30 MG N=61
Patients with ≥1 TEAEs	36 (59.0%)
Patients with severe AEs	3 (4.9%)
Serious AEs	3 (4.9%)
Related SAE*	1 (1.6%)
AEs in >10% of patients	
Patients with nervous system disorders	32 (52.5%)
Dizziness	18 (29.5%)
Somnolence	10 (16.4%)
Headache	8 (13.1%)

- Lowest rate of TEAEs and CNS AEs with modern ASMs**
- Most AEs were mild to moderate and transient
- All severe and serious AEs recovered and resolved
- 23% of patients discontinued the study
- Investigators had the option to reduce the dose of the background medication to manage AEs; when done (6 patients) no discontinuation was observed

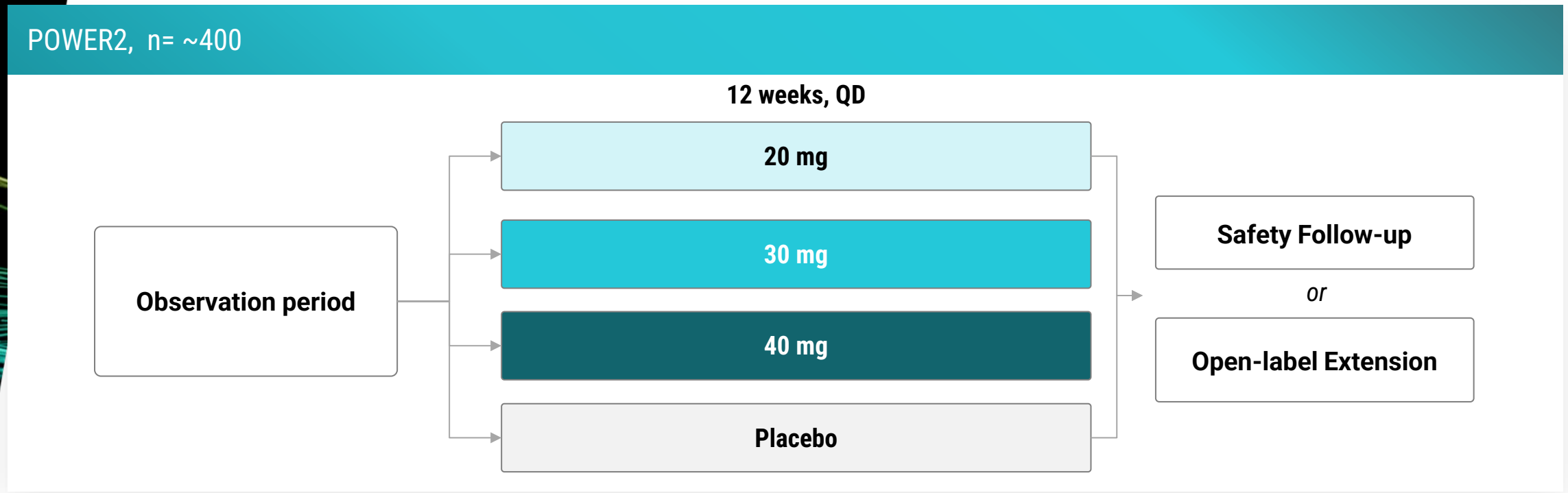
- Episode of diplopia, resolved after reduction of lamotrigine dose
- **Comparison to cenobamate and XEN1101 included in Addendum Slide 23

PRAXIS

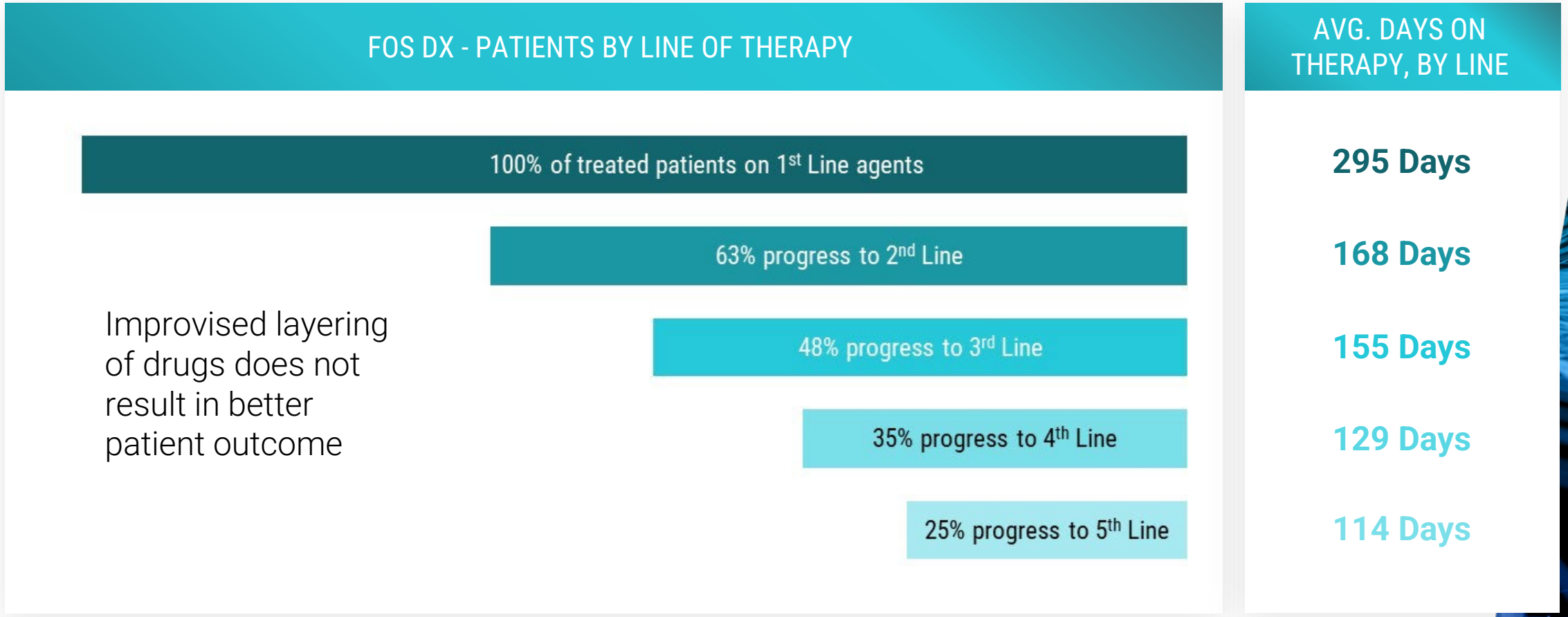
Learnings from RADIANT to inform POWER2

- Preliminary dose response modeling supports potential for greater effect with 40 mg vormatrigine
- Reducing background ASMs is an effective strategy to manage AEs without adversely affecting seizure reduction
- Including depression/mood endpoint based on reported improvements in mood by patients in RADIANT to site staff
- Effective and highly efficient recruitment enables time to completion and homogeneity of the patient cohort

POWER2 staged to initiate this quarter, complete enrollment in 2H 2026



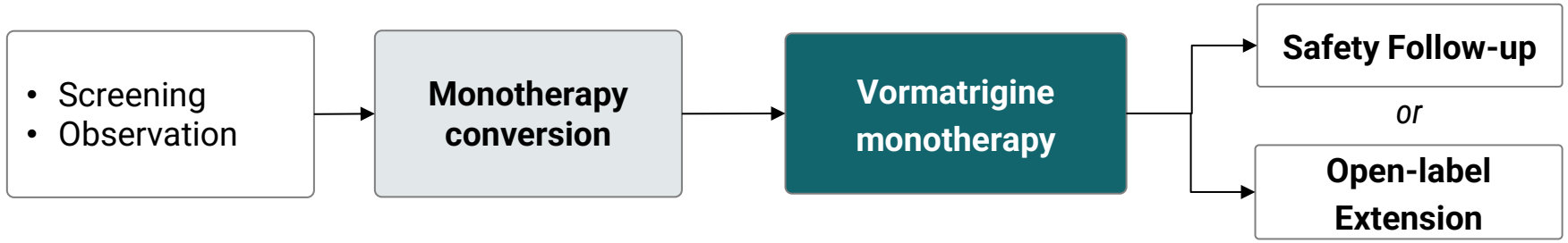
Majority of focal epilepsy patients quickly progress to multiple ASM use by trial and error



Simpler and more rational way to manage patients is needed

Source: Praxis Claims Analysis on File 2024. FOS patient cohort (n = 440k)

POWER3 designed to demonstrate the potential of vormatrigine as a stand-alone agent



Key study aspects:

- Refractory epilepsy with 1-2 current ASMs
- Initiate vormatrigine while titrating off current regimen over 4 weeks
- Details to follow after protocol finalization

Expected to initiate 1H 2026

Vormatrigine leads the way to be the best-in-disease ASM

- Rapid and compelling seizure reduction overall and in subgroup analyses
- Favorable safety and tolerability profile compared to ASMs currently in the market or in development*
- Ideal dosing profile: once-daily, no titration, taken with or without food and no expected restrictions with concomitant ASMs or with common contraceptive agents
- RADIANT results increase our confidence in POWER1 readout and support broader registration program with initiation of POWER2 and POWER3 studies
- We anticipate rapid execution towards registration based on our clinical execution expertise

Source: *Comparison to Cenobamate and XEN1101 included in Addendum Slide 23

Praxis is revolutionizing how epilepsy is treated

SPECTRUM OF EPILEPSY

Common (3M+ patients)

Vormatrigine

- Best in class potential ASM for common epilepsy patients
- Pursuing standalone agent study to reduce patients burden of multiple ASMs and churn while improving outcomes

DEE-driven rare (200k+ patients)

Relutrigine

- BTD in SCN2A and 8A DEEs
- EMBOLD study enrolling SCN2A and 8A DEEs
- EMERALD study enrolling across all DEEs, to reduce seizure burden

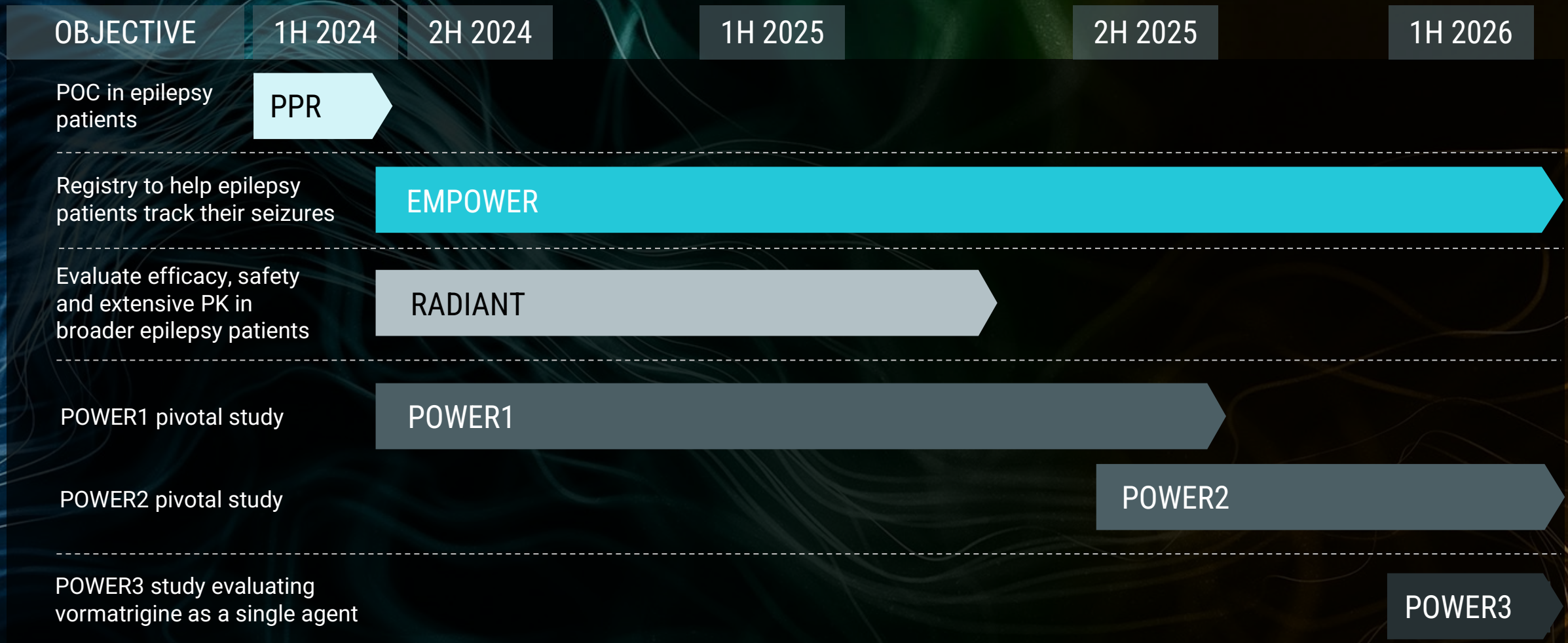
Solidus ASO platform targeting genetic drivers of DEEs, complimentary with relutrigine

- Elsunersen in SCN2A DEE
- PRAX-100 in SCN2A Autism
- PRAX-080 in PCDH19 DEE
- PRAX-090 in SYNGAP1 DEE

DEE: Developmental Epilepsy and Encephalopathies
BTD: Breakthrough Therapy Designation


PRAXIS
DARE FOR MORE®

Vormatrigine development program to demonstrate efficacy and bring an improved therapy to focal and generalized epilepsy patients



Vormatrigine safety profile positioned to be best-in-disease ASM

	Vormatrigine 30 mg (N = 61)	Cenobamate 400 mg (N = 111)	XEN1101 25 mg (N = 114)
Study	RADIANT	Study C017[1]	X-TOLE[2]
Discontinuation	14 (23 %)	30 (27%)	26 (23,%)
Patients with ≥ 1 TEAE	36 (59 %)	100 (90 %)	97 (85 %)
Patients with severe AEs	3 (4.9 %)	18 (16 %)	Not reported
Serious AEs (SAEs)	3 (4.9 %)	8 (7 %)	3 (2.6 %)
Related SAE	1 (1.6 %)	–	Not reported
CNS-related AEs (≥ 10%)	32 (52.5%)	80 (72.1%)	83 (72.8%)
Dizziness	18 (29.5 %)	37 (33 %)	36 (31.6 %)
Somnolence	10 (16.4 %)	41 (37 %)	17 (14.9 %)
Headache	8 (13.1 %)	12 (11 %)	9 (7.9 %)
Titration	None	12-weeks	None
Food Effect	None; Any time of day, with or without food	None; Any time of day, with or without food	Yes; Evening dosing with food
Significant DDIs	N/A[3]	Multiple	CYP3A

1. Cenobamate Krauss, G. L., et al. *The Lancet Neurology*,. 2020;19(1), 38–48. https://doi.org/10.1016/S1474-4422(19)30399-0; https://www.ema.europa.eu/en/documents/assessment-report/ontozry-epar-public-assessment-report_en.pdf,
2. XEN1101: French JA, et al; *JAMA Neurology*. 2023;80(11):1145–1154. doi:10.1001/jamaneurol.2023.3542
3. Based on PRAX data available to-date

Not a head-to-head comparison