PrevEp

Prevent Today. A Brighter Tomorrow.

RESI BOSTON 2026

SEPTEMBER 21–23, 2026
BOSTON, MA

PARTNERING. INNOVATION. A HEALTHIER TOMORROW.

PrevEp006: Intranasal Seletracetam

The First Non-Benzodiazepine, Non-Sedating, On-Demand Seizure Prevention

From daily treatment to on-demand seizure prevention

1. THE UNMET NEED

Half of all seizures are predictable. None are prevented.

3.4M
US epilepsy patients
1% of the population worldwide

~50%
Seizures are predictable
Triggered by sleep deprivation, stress, fever, menses, or reflex stimuli

0
Prevention therapies exist
Current standard: daily meds with side effects, or rescue after seizure starts

Current rescue therapies (Nayzilam®, Valtoco®) are benzodiazepines — limited by sedation, respiratory depression, and FDA dosing restrictions.

Together they reach only **30%** market penetration for ARS.

2. OUR SOLUTION

PrevEp006: The first on-demand seizure prevention

Intranasal seletracetam (SEL) — a novel, proprietary formulation that prevents seizures before they start. Like an asthma rescue inhaler: patients carry it and use it when a seizure trigger is anticipated or a seizure is predicted by a device.

Rapid onset
Effective blood levels within 2 minutes of intranasal dosing

Non-sedating
No respiratory depression, no addictive potential

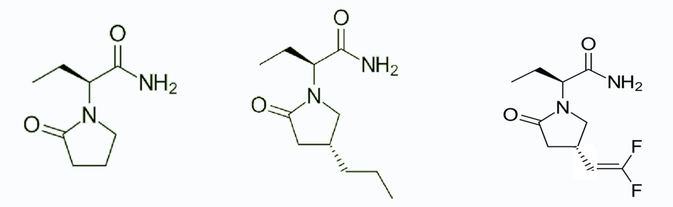
Unrestricted dosing
Not a benzodiazepine — no FDA use-frequency limits

First-in-class
No approved seizure prevention therapy exists

3. A HIGHLY DERISKED AND UNIQUE ASSET

Seletracetam: The most potent non-benzodiazepine ASM

- Second-generation racetam analogue of levetiracetam
- ~100x more potent than levetiracetam
- 8–10x more potent than brivaracetam
- Developed by UCB to Phase 2a, then shelved for commercial reasons in favor of brivaracetam
- High water solubility enables intranasal therapeutic dosing (unique among non-BZD ASMs)
- New Chemical Entity (NCE) with new IP on intranasal and orobuccal formulations and medical uses (US filed 2024, PCT 2025)

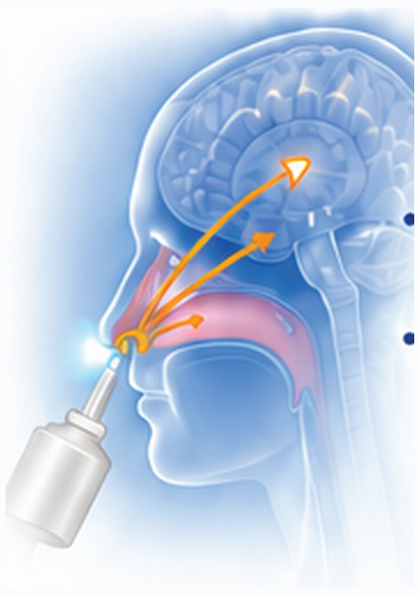


Levetiracetam	Brivaracetam	Seletracetam
1x	8–10x	100x

Relative antiseizure potency (preclinical models)

4. RAPID BRAIN PENETRATION

Direct nose-to-brain pathway



- Therapeutic range plasma levels in 1 minute
- Brain levels in 1 minute via independent, direct nose-to-brain path

Löscher W et al. unpublished data.

5. HUMAN PROOF OF CONCEPT

174 humans treated — proof of concept established

Administration	Study	Type	N	Key Finding
Oral	Lees, Stockis (2006)	Phase 1 SAD/MAD	53	Well tolerated in healthy volunteers
	Kastelijn (2006, 2025)	Phase 2a (IPS)	28	Proof of concept in epilepsy (oral); rapid onset, long duration
	NCT00152503	Phase 2a open label	59	Efficacy signal in adjunctive therapy
	NCT00152451	Phase 2a open label	31	Additional safety and tolerability data
Intranasal (PrevEp006)	**Koepp et al. (2025), + unpublished**	**Compassionate use**	**3**	**First-in-human intranasal: seizures prevented, blood levels in 2 min, ongoing seizure stopped in 52 sec, no side effects**

6. PILOT CLINICAL RESULTS

Intranasal PrevEp006 (Company data + Koepp 2025)

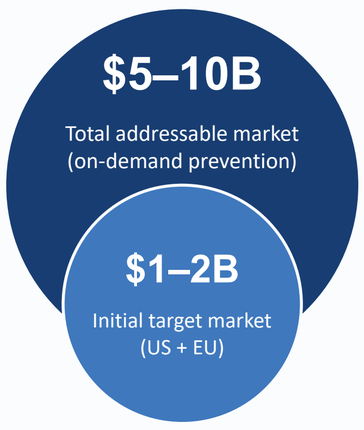
Reading epilepsy
(Koepp et al., 2025)
- 42 YO man, refractory to levetiracetam
- 3 reading-induced seizures in 5 minutes prevented with 60 mg intranasal SEL
- Spikes reduced and spatial spread prevented

Musicogenic epilepsy
(Company pilot data)
- 57 YO woman, refractory to levetiracetam
- Ongoing seizure stopped 52 sec after 60 mg
- No post-ictal confusion

Focal epilepsy
(Company pilot data)
- 51 YO man, refractory to 8 ASMs
- No seizures for 12 hours after 180 mg (on 2 separate days vs 1/72 other days, p = 0.001)
- No side effects

7. LARGE MARKET OPPORTUNITY

Expanding the epilepsy treatment paradigm



- 3.4M patients in the US (~50M worldwide)
- ~50% have predictable, triggered seizures
- 2026 sales: ~$600 M (30% penetration, ARS)
- No preventive RX approved
- Significant expansion opportunity with a non-BZD, non-sedating, unrestricted, on-demand prevention therapy

8. DEVELOPMENT PLAN

Clear path to value inflection

2026–2027 Complete preclinical package
Finalize CMC and intranasal formulation

2027 IND submission

2028 Phase 2a proof-of-concept trial (triggered seizures)

2028+ Pivotal development and partnership opportunities

Series A: $25–32M

Advance to Phase 2a and key value inflection points

9. INVESTMENT HIGHLIGHTS

Large, underserved market
First non-BZD seizure prevention therapy

Highly derisked asset
Extensive prior human data (174 subjects)

Strong differentiation
Rapid onset, non-sedating, unrestricted use

Experienced team
Proven track record in epilepsy drug development

Near-term value inflection
IND in 2027, Phase 2a in 2028

Multiple indications
Triggered seizures, acute repetitive seizures, rapid seizure termination (REST), device predicted seizures

PrevEp, Inc.

Bethesda, MD, USA
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