

RETHINKING PARKINSON'S: TARGETING INTRACELLULAR DOPAMINE-RELATED PATHOLOGY



2026

Phase 2 trial launches
(based on FDA engagement)

\$6.25M

Seed round
investment

Repurposed metyrosine
(RB-190) identified
to treat Parkinson's

RB-190 validated in
9 models of Parkinson's

RB-190

Rethinking Parkinson's

- + For the last 50 years, all Parkinson's therapies have focused on a singular approach – using medicines to increase brain levels of dopamine. However, this approach fails to reverse disease or disability.
- + Industry and academia are focused on adjusting the dosing of medicines used since the 1960s to optimize blood levels and improve clinical effects. But these medicines don't fix the problem at any blood level.

RB-190 Is a Transformative, Ground-Breaking Alternative

- + Dr. Jonathan Sackner-Bernstein was curious why therapies that didn't fix the disease became standard of care. To understand, he applied analytic skills honed over 30+ years as a clinical trialist, a senior leader at the FDA and an insider at DARPA.
- + When he translated the original 1960s studies from German, Sackner-Bernstein discovered a major flaw in their research methods. Dopamine was measured in the brain *tissue* because it wasn't understood at the time that the clinically relevant measure is the amount inside the brain *cells* that control movement – the intracellular level. Too little dopamine inside prevents movement and too much is toxic, also preventing normal movement.
 - ▶ No one had ever measured or calculated the dopamine levels inside the cells in people with PD. So he figured out how. And he discovered that the amount of dopamine inside the brain cells was excessive.¹ Excess dopamine is toxic to these vital brain cells, causing worse function and death of these brain cells.²
 - ▶ Next, he found a previously approved drug (RB-190, a.k.a., metyrosine) that normalizes dopamine levels inside these cells, and by doing so, reverses pathology. This is shown in 9 standard laboratory research models of the disease.² By reformulating this drug that was previously approved to treat a different condition, Phase 1 studies could be skipped – saving time and money. The FDA agreed that a Phase 2 trial should be next.
 - ▶ Right Brain Bio used the \$1.25M raised to date (as part of this seed round) to establish manufacturing of RB-190 and recently completed making the first batch of the drug for clinical trials.
 - ▶ Now, Right Brain Bio is raising the remaining seed funds (\$5M) for a Phase 2 clinical trial in Parkinson's – launching in 2026 – to prove that RB-190 can restore function and reverse the disease.

¹ Sackner-Bernstein, *Journal of Parkinson's Disease* 2021, ² Sackner-Bernstein, *Journal of Neurology* 2023

The Team

Jonathan Sackner-Bernstein, MD: CEO & Founder
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The Advisors

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Jim Surmeier, PhD, Northwestern University
Jason Connor, PhD, ex-PCORI, ex-NINDS & FDA consultant
Paul Blake, MBBS, FRCP (1948-2024), formerly GSK, Cephalon
Additional Parkinson's experts committed to conduct the trial
Experts in clinical operations and regulatory strategy