CureViva Therapeutics LLC
New Haven, CT
www.curevivatherapeutics.com

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Industry: Life Sciences, Biotechnology, Healthcare

Management/Founder Team:
Prof. Richard Sutton, MD, PhD-Founder
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Yunus Yukselten, PhD-Founder, CEO
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Advisory Board/Board of Directors:
Pending

Scientific Advisory Board:
Pending

Number of Employees: 2

Finance:
Funding to Date:
NIH: $190K (2024-2025)

Funding Sought:
$5M for Pre-Clinical Study

Use of Funds:
R&D**:** $2M
Lab& and Equip Costs**:** $1.5M
Personnel, etc.: $1M
Regulatory and Compliance: $250K
Administrative and Operational Expenses**:** $250K

IP: Yale IP pending

Company Description / Background:

CureViva Therapeutics is an innovative biotechnology startup dedicated to developing a novel HIV therapeutic that specifically disrupts HIV Rev-Rev multimerization. This unique mechanism represents an untapped therapeutic opportunity and addresses drug resistance, a significant limitation of current HIV treatments. Our mission is to deliver groundbreaking therapies that bring lasting impact to patients and reshape the future of HIV treatment.

Problem:

Existing HIV medications frequently face resistance issues, leading to treatment failures. Current therapies primarily target common viral pathways (reverse transcription, integration, maturation, etc.); however, none effectively address HIV RNA nuclear transport, a promising yet untargeted step in the virus's lifecycle. The HIV Rev protein first forms dimers (Rev-Rev dimerization) and subsequently multimerizes on a viral RNA element. This interaction facilitates the export of intron-containing viral RNA from the nucleus to the cytosol, representing a novel therapeutic target.

Solution:

Our approach introduces a first-in-class small molecule inhibitor designed to specifically disrupt the critical Rev-Rev dimerization and multimerization step in HIV's lifecycle, which has not previously been targeted by existing therapies. By focusing on this essential viral process, our solution significantly reduces the virus's ability to develop resistance mutations, addressing a major limitation of current HIV treatments. Furthermore, due to its distinct mechanism of action, our inhibitor has strong potential to increase the overall effectiveness of existing antiretroviral therapies, reduce the required drug dosage, and consequently minimize associated toxicity and side effects.

Market:

The global HIV treatment market currently exceeds $30 billion annually and continues to expand due to significant ongoing unmet medical needs. Our primary target segment consists of patients experiencing resistance to existing HIV therapies—representing approximately 10–15% of the global HIV-positive population (~3–4 million individuals). Additionally, potential disruptions or shifts in global funding and healthcare strategies could influence HIV treatment accessibility and planning in the near future, further highlighting the critical need for innovative and effective therapeutic solutions. Overall, addressing treatment-resistant HIV represents a substantial market opportunity, with the broader HIV drug market projected to grow at a CAGR of approximately 6.4%.

Competition / Competitive Advantage:

Our solution targets a unique therapeutic pathway that is not addressed by current HIV drugs, offering the potential to lower resistance rates and reduce treatment failures. Our approach blocks HIV at the RNA export step, essential for replication — a mechanism that current therapies do not address. By focusing on this critical step in the viral lifecycle, our approach complements existing antiretroviral therapies, creating strong synergy and positioning our treatment for broad adoption as part of combination regimens.

Traction and Progress/Future Plans and Milestones:

NIH Grant of $250K secured for initial small molecule screening which began summer 2024. Will screen 125,000 small compounds at YCMD; plan to expand screen to 300,000 compounds at YCMD. IND filing within 5-6 years, initiating clinical trials by year 2032. Market entry expected by 2035–2036, achieving profitability shortly thereafter.

Year	2025	2026	2027	2028	2029
Funding Required ($5M total)		**$2.5M**	**$2.5M**		
R&D		$1.0M	$1.0M		
Lab & Equipment		$0.5M	$0.5M		
Personnel		$0.7M	$0.3M		
Regulatory & Compliance		$0.2M	$0.3M		
Admin & Operational		$0.1M	$0.4M		
Non-Dilutive Funding Secured	$190K				

Milestones	Timing
Secure Preclinical Funding	2026-2029
Complete Preclinical Studies	End of 2028
IND Submission	Early 2029
Phase I Clinical Trial Start	2029-2031