



Superluminal draws RA Capital, Nvidia as investors in GPCR drug hunt

The Boston-based company's \$33 million financing will help it develop its AI technology and build a small molecule drug pipeline.

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In this illustration, extracellular dopamine binds to a dopamine receptor, activating a G protein. selvanegra via Getty Images

Superluminal Medicines, a Boston-based biotechnology startup, said Monday it raised \$33 million in seed funding to develop a pipeline of drugs focused on G protein-coupled receptors.

Superluminal was co-founded by former RA Capital Management executive Ajay Yekkirala and former Evotec executive Cony D'Cruz. Insight Partners, Nvidia and Gaingels joined RA Capital in the seed round.

"Our deep understanding of biology and our ability to employ the technology and tools necessary to effectively explore and manipulate that biology are critical differentiators that we believe will ultimately enable us to develop therapeutics," D'Cruz said in a statement.

Superluminal said it expects to produce a lead experimental drug candidate "in the near term."

The biotech's round is particularly large for a seed financing, among the first funds a startup raises from investors. Across all sectors, the top seed rounds since 2018 have generally hovered anywhere between \$5 million and \$9 million, according to data from Pitchbook.

The funds will help Superluminal go after GPCRs, which have long been on drugmakers' radars but recently become a hot area of startup investment as well. By one 2017 estimate, approximately one-third of medicines target the ubiquitous and multifunctional receptors in some way. Some well-known drugs that target GPCRs include the diabetes drug Victoza and the multiple sclerosis treatment Gilenya.

But roughly 70% of the estimated 850 or so GPCRs in the human body are currently considered undruggable, according to Superluminal. That leaves plenty of room for young biotechs to try to develop new ways of targeting those receptors. Companies such as Structure Therapeutics and Septerna have trained a spotlight on them again, aiming to capitalize on advancing science and improving research tools.

In targeting GPCRs, Superluminal plans to explore "the multitude of conformations a protein can adopt," D'Cruz said. The company is focused on developing small molecule drugs

Artificial intelligence is at the heart of Superluminal's approach, which it said could help it advance new drug candidates more quickly.

Biotechs that draw heavily on machine learning have attracted some non-traditional investors. Insight usually invests in software companies, while the chipmaking giant Nvidia is putting more capital into artificial intelligence bets across multiple sectors. The firm has made other biotech bets this year, including a new

partnership with Recursion Pharmaceuticals and participation in Genesis Therapeutics' Series B round.