

Frontier Medicines launches with \$67M and biotech veteran Varma as CEO

By Amirah Al Indrus
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Frontier Medicines' first focus is cancer, but it's open to partnering with other companies to use its approach in other areas such as neurodegenerative disease, said Frontier CEO Chris Varma. (Frontier Medicines)

He's founded and led a handful of biotechs and put in time at multiple venture capital firms. Chris Varma's latest project? Drugging the undruggable to bring forth treatments against "debilitating diseases, starting with cancer."



Varma leads Frontier Medicines, which **launched** Tuesday with \$67 million in series A funding. The company aims to solve a problem that has plagued the biopharma industry since the beginning. "Over the last 100-plus years of pharmaceutical drug development, we've only been able to access about 10% of human protein targets. We haven't been able to access the other 90% where a lot of very important disease-causing proteins lie," Varma told FierceBiotech. "The question is, why haven't we been able to access them?"

He likens the 10% of accessible proteins to coat hangers and the inaccessible 90% to strings. "You've got the corners of a coat hanger, where you can imagine sticking something into. That's basically what we do—take drugs and stick them into these corners of protein molecules," he said. "The other 90% would be like a string. If you hold a string up, it's perfectly straight and flat, with no corner to stick anything into."

Frontier is using its chemoproteomics platform to look for new corners—or pockets to which drugs can bind—on strings, or previously inaccessible proteins. These binding pockets appear temporarily when proteins, which are long chains of amino acids, move and take different shapes.

"Those pockets are temporary, but they better represent what happens in nature with these proteins, which are very dynamic. If we can figure out where these temporary pockets are, we can then drug them," Varma said.

The company's tech is multifaceted: "Our platform currently includes a database of hotspots that cover a majority of human proteins, including those that were previously considered 'undruggable;' an

expanding library of diverse, covalent compounds being driven by machine learning; and a novel approach to protein degradation," Daniel Nomura, Ph.D., co-founder of Frontier Medicines, said in a statement. "This platform enables us to go after almost any protein target of interest for therapeutic intervention."

Frontier uses covalent compounds because the temporary hot spots are a moving target, Varma said. "The molecule is effectively waiting until the protein gets into that particular confirmation such that we can bind the molecule. Once it binds, it locks the protein into the druggable confirmation and has the intended therapeutic effect," he said.

The company hasn't disclosed which targets it's going after, but Varma did say these targets have been known for decades in the academic and industry communities as drivers of cancer. An example of such a target would be KRAS, which researchers have been trying to drug for 30 years. Amgen **posted the first clinical data** from a KRAS inhibitor last month, showing its prospect, AMG 510, stopped tumor growth in patients with non-small cell lung cancer and colorectal cancer. It works the way Frontier's covalent compounds do: "by exploiting a previously hidden groove on the protein surface," and "lock[ing] it into an inactive state," David Reese, M.D., Amgen's R&D chief, said at the time.

Though Frontier's first focus is cancer, Varma said cancer-driving proteins also play a role in other conditions such as neurodegenerative, inflammatory and autoimmune diseases. But, as a small company, Frontier can't tackle all of them on its own.

"We also are open to finding the right industry partners to help us to really develop this technology and get it out further into the industry so that more and more of these undruggable targets can be accessed and therapies can be developed for patients," Varma said.

With financing in hand, Frontier will be "focusing, heads down" on discovering and developing its pipeline of programs, as well as on building out its platform. It's also looking to hire—it wants to double its headcount from 10 to 20 by the end of the year.

Deerfield Management, Droia Oncology Ventures and MPM Capital—where Varma spent two years as a venture partner—led the financing, with DVCV Bio and RA Capital Management also chipping in.