

07 Sep 2023 | Interviews

With \$175m, Mariana Will Take First Precision Radiopharmaceutical Into The Clinic

Firm Raised \$75m Series A In Late 2021 As Curie

by **Mandy Jackson**

Mariana Oncology closed a \$175m series B venture capital round to fund its first clinical trial, for MC-339 in small-cell lung cancer, as well as its manufacturing and pipeline-building activities.

Mariana Oncology Inc. CEO Simon Read believes that one of the reasons his company was able to raise the \$175m series B venture capital round announced on 7 September was its differentiated approach to drug development in the increasingly crowded radiopharmaceutical space. While other radiopharmaceutical firms may source different parts of their molecules from outside sources or outsource their manufacturing, Mariana keeps all parts of the process in-house.

The company has also sought to differentiate its pipeline from other radiopharmaceutical firms by moving into the clinic first with MC-339 for small-cell lung cancer rather than focusing first on a prostate cancer radiopharmaceutical candidate, like many of its peers. Mariana, previously known as [Curie Therapeutics, Inc.](#), raised a \$75m series A round in December 2021. (Also see "[Finance Watch: Dementia Discovery Fund's Behr Sees Early Investments Reviving Neuroscience Interest](#)" - Scrip, 1 Dec, 2021.) Since then, the company has built a pipeline of radiopharmaceutical candidates and plans to take MC-339 – with an actinium payload and an undisclosed target for precision delivery – into the clinic in 2024.

New investors Deep Track Capital and Forbion co-led Mariana's series B round with participation from founding investors Atlas Venture, Access Biotechnology and RA Capital Management as well as additional new investors Nextech Invest, Surveyor Capital (a Citadel company) and [Eli Lilly and Company](#).

Read told *Scrip* that Mariana was pleased with the size of the series B round it was able to assemble in a difficult funding environment, but noted there still is money available to companies with strong fundamentals, including a strong team in addition to a differentiated technology platform and R&D pipeline. (Also see "[Biopharma Investors, Companies Learning To Adjust To Financial Market Realities](#)" - *Scrip*, 27 Jun, 2023.)

The Mariana team includes a few executives from peptide therapeutics developer [Ra Pharmaceuticals, Inc.](#), which [UCB S.A.](#) acquired for \$2.1bn in 2020, including Read, who was Ra Pharma's chief scientific officer. Mariana's CSO Alonso Ricardo was Ra Pharma's chief technology and innovation officer. The firm's chief technology officer Bernard Lambert previously was president and chief operating officer at the radiopharmaceutical firm [Telix Pharmaceuticals Ltd.](#) Recently appointed chief financial officer and chief operating officer Linda Bain previously was CFO at [Codiak BioSciences, Inc.](#)

A Fully Integrated Radiopharmaceutical Company

"We're a fully integrated radiopharmaceutical company," Read said. "I think that's one of the things that is particularly appealing to the incoming investors, is a company that is able to not only discover molecules, but also to engineer them and then to take them to bedside. So, we're delighted to have both a fully functioning R&D group as well as a manufacturing organization, and that's relatively rare in this space."

Mariana has brought together leaders in small molecule discovery and development and radiopharmaceutical and manufacturing experts. Read said this makes it one of few radiopharmaceutical companies that can go from identifying a drug target to peptide discovery to building molecules that combine a targeted peptide and radioactive payload then scale up and manufacture the molecules for clinical trials and beyond.

"When you look at other companies, they tend to think of these molecules almost like Lego projects, the idea of almost subcontracting the discovery of the ligand, adding the payload and then dosing patients," he explained. "We tend to think of these molecules as fully integrated molecules and we engineer them to have best-in-class tumor penetration, and the only way you can do that is when you conceptualize the whole molecule."

Read said Mariana is investing in manufacturing in two steps. The first step is to build an integrated Phase I/II manufacturing unit that is designed to be flexible and supply sufficient doses for Phase I and Phase II clinical trials. A larger facility will be built for Phase III and beyond.

In addition to supporting the company's initial manufacturing needs, Read said, "we're also finding a significant amount of intellectual property is being generated by the manufacturing team." That's an opportunity for creating additional value that Mariana wouldn't have if it

contracted out its manufacturing needs, he noted.

Testing The Platform First In SCLC

As for the platform's first test in the clinic, Read explained that small-cell lung cancer (SCLC) is a good indication for the development of a radiopharmaceutical drug because of the high unmet medical need and because it has proven to be sensitive to radiation therapy.

"But because it's metastatic in nature, it's not possible to treat every single metastasis with external beam radiation," he said. SCLC is also a "cold" tumor that is able to evade the immune system, so immuno-oncology treatment strategies have not been particularly successful. "And so," Read said, "it leaves this broad landscape of unmet need where we believe that targeted radiation delivered systemically by our molecule is going to be highly effective."

Mariana plans to release some preclinical data for MC-339 soon at a scientific conference. As for when the company will advance additional radiopharmaceutical candidates, it has not committed to a timeline for taking its next programs into the clinic.

"We're a portfolio-based company, so we have multiple projects," Read said. "We haven't made any commitment to when the second or the third projects will reach the clinic, but we will update over the coming months about the progress for project two and project three."

He explained that Mariana is not in a rush to license out its technology platform or engage with partners to advance any of its programs now that it has raised a large series B round.

"Where a strategic partner could add scale or additional capabilities, of course, we're open-minded about that," Read said. "It's a nice situation to be in that we don't have to partner. We are looking for synergies in potential partnerships, but right now it's sort of secondary to going forwards on our own."