



With latest fundraise, Rome Therapeutics works to drug the 'dark genome'

Led by former Nimbus executive Rosana Kapeller, the startup has now raised nearly \$200 million in its pursuit of new autoimmune disease and cancer therapies.

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Gwendolyn Wu
Reporter

Rome Therapeutics, based in Boston, is exploring ways to study the so-called dark genome. Permission granted by Rome Therapeutics

When Rosana Kapeller was working at Nimbus Therapeutics in the early 2010s, the technology to study the so-called dark genome didn't exist.

Fourteen years later, Kapeller is running a biotechnology startup well on its way to shedding light on how those less-explored stretches of DNA could yield new drugs.

Kapeller's company, Rome Therapeutics, on Tuesday revealed it has raised another \$72 million to advance its research, drawing in new investors Johnson & Johnson and Bristol Myers Squibb into a Series B extension round.

"We're a discovery company becoming a development company," Kapeller said in an interview.

The "dark genome" refers to DNA that doesn't directly encode for proteins and therefore has drawn comparatively less attention from researchers and drugmakers. It primarily consists of

repetitive genetic elements, which are collectively known as the repeatome and for which Kapeller's startup is named.

Researchers believe searching those elements for clues to how disease develops could unlock new types of medicines. The technology to scan and study this part of DNA wasn't available until the past decade, as advances in long-read sequencing and, later, machine learning techniques gave scientists needed tools, Kapeller said.

Rome's lead drug candidate targets a viral-like protein known as the LINE-1 reverse transcriptase, which, when activated, appears involved in cellular signaling that drives autoimmune diseases like lupus. The biotech claims blocking this protein could inhibit inflammation without tamping down the body's ability to fight infections, a side effect of many immune-directed medicines.

The new Series B funds will go toward advancing the LINE-1 candidate into clinical testing, Rome said. The company has so far released only limited details about its broader pipeline, but is focused on autoimmune diseases, cancer and neurodegeneration.



Rosana Kapeller
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In 2021, Rome brought in \$77 million through its original Series B raise, which Kapeller said was intended to bring its lead program through to clinical trials.

At that time, many of Rome's biotech peers were using Series B funding to make the leap to the public markets. But markets have soured since then and companies without clinical data are finding it harder to pull off initial public offerings.

Kapeller said Rome's investors chose to stake the company with additional funding so it could show whether its experimental drug might work in humans. Bringing in new investors who had been interested previously was another benefit, she added.

All told, Rome has now raised nearly \$200 million since its 2020 launch. The company was incubated at GV, which joined in the Series B extension financing and where Kapeller is a fellow. Along with J&J and Bristol Myers Squibb, its investors include Sanofi, Eurofarma, Arch Ventures and Mass General Brigham Ventures.

“The significant interest in this fundraise, particularly given the challenges of the current financing environment, is testament to the Rome team, science and opportunities,” Jeff Hatfield, chair of Rome’s board, said in a statement.