

PrismRA Sets A New Path For Rheumatoid Arthritis Treatment

Northeastern University



Patients with autoimmune diseases like rheumatoid arthritis (RA) often face a frustrating cycle of trial-and-error treatments, enduring ineffective therapies and needless suffering. However, a new approach from Scipher Medicine promises to revolutionize how these conditions are treated using precision immunology.



Founded in 2013 by Drs. Joseph Loscalzo and Albert-Laszlo Barabasi, Northeastern University spin-out company Scipher Medicine has been at the forefront of transforming autoimmune disease treatment through its innovative Spectra AI Platform. This platform harnesses the power of network science and artificial intelligence to create a detailed molecular map of autoimmune diseases while identifying and tailoring the most effective therapies possible for individual patient profiles.

RA affects nearly 1.6 million people in the United States and up to 1% of the global population. Scipher's PrismRA is a revolutionary blood-based test that works by showing if tumor necrosis factor- α inhibitor (TNFi) therapies, one of the most commonly prescribed RA medications, is less likely to work for a patient. The PrismRA result helps doctors avoid prescribing this type of medication and instead, begin a medication that may be a better match for patients. This proactive approach saves time and resources and allows patients and their healthcare providers to pursue more effective treatment options from the outset.

"Finding the right treatment for each patient has long been one of the most complex challenges in healthcare," said Jennifer Boyle-Lynch, Executive Director of Northeastern University's Center for Research Innovation (CRI). "Scipher Medicine's innovative approach not only addresses this challenge but also sets a new standard in precision medicine."

Northeastern University's CRI, alongside Peter Ruppert as Entrepreneur in Residence (EIR) from the BarabasiLab, collaborated closely to negotiate a startup-friendly express license, allowing Scipher to secure vital funding and grants, thus expediting the commercialization of its groundbreaking technology.

Since launching PrismRA commercially in 2020, Scipher has published three studies on the blood test's clinical utility, received Medicare coverage, entered a multi-target partnership with Ionis Pharmaceuticals, and made PrismRA available in Quest labs across the U.S. in 2024.

Using precision medicine combined with artificial intelligence, Scipher Medicine is on a mission to match each patient with their most effective therapy.

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