Trefoil Therapeutics Raises $28M and Eyes the Clinic for Cornea Drug

Trefoil Therapeutics, which is developing treatments for diseases that affect the cornea, the outermost layer of the eye, has raised $28 million to move its lead drug candidate into human testing.

The company is developing an engineered form of fibroblast growth factor-1 proteins (FGF-1) as a treatment for corneal diseases such as Fuchs’ dystrophy, which gradually causes endothelial cells within the cornea to die, leading to blurred vision that can eventually necessitate a corneal transplant. It’s designed to stimulate the growth and movement of those cells, potentially reversing the vision loss experienced by patients.

Corneal endothelial diseases, including Fuchs’ dystrophy, are among the leading causes of corneal transplantation. Such transplants are invasive, expensive, and can require patients to take immunosuppressive drugs for the rest of their lives, said Richard Abbott, professor emeritus at UCSF’s Department of Ophthalmology, in the statement Trefoil issued about the financing.

The San Diego-based company is headed by CEO David Eveleth (pictured), who earlier in his career headed the Pfizer (NYSE: PFE) ophthalmology medicines development group, according to Trefoil.

Trefoil’s technology was developed by co-founder Michael Blaber, and is licensed from Florida State University. He and other FGF-1 researchers Ralph Bradshaw, in whose laboratory FGF-1 was discovered, and Ken Thomas, who purified FGF-1, founded the company in 2013.

Initially funded by its founders and some individual investors, Trefoil raised a $5 million seed round in 2017 in a financing led by Durham, NC-based Hatteras Venture Partners. It also inked a deal with the National Institutes of Health’s Therapeutics for Rare and Neglected Disease program that allowed it to proceed with preclinical development of its lead program.

The latest financing, a Series A round of funding, was led by a new investor, Fort Worth, TX-based venture capital firm Bios Partners. Access Biotechnology, another new investor, also participated. Trefoil said all of its earlier investors, including Hatteras, Aju IB Investment, Correlation Ventures, ExSight Ventures, and InFocus Capital Partners, joined in on the investment too.

The company said that the funding will allow it to get its lead candidate through a Phase 2a proof-of-concept study as a treatment for corneal endothelial dystrophy. Trefoil says it plans to seek FDA permission to move into human testing in early 2020.

It will also use the money to advance preclinical studies of the compound as a topical formula to treat corneal ulcers, a program spurred by the results of a study that investigated the compound as a treatment for chemical gas injury, funded by a Department of Defense grant. Trefoil aims to file paperwork with the FDA to start human testing of that candidate in 2021.
Bios Partners co-founder Stella Robertson will join Trefoil’s board of directors as part of the financing.