President’s Message, Monica H. Bellizzi

Last Sunday, we celebrated our grandson’s 1st birthday. It was a joy to see his smile, his growth in movement and the discovery of frosting on a cake. It was a whole body experience...

Measurement in time: whether it’s birthdays or anniversaries, show the growth and the accomplishments of lives and organizations. And, if all goes well, you learn the purpose, the wisdom needed to function well.

December, 2015 The Corneal Dystrophy Foundation celebrated ten years of being a patient advocacy organization. We celebrated the people we met, the stories that were shared, the lives that were touched. What measurement do you put on helping a person gain knowledge and insight to help them make a decision right for them?

At the start, we were amazed when 200 people asked for information and now ten years later the figures run into the thousands. What began as a way to communicate and get answers grew to a way to educate, share and support those with vision problems.

In 2009, Google gave us a measurement tool, that gathers statistics showing the number of people looking for information and a on-line support group,

While it’s the figures that show we reach people, it’s the thank you notes, that we receive, that shows us how we connected with them. They inspire us.

We were "touched" with your Corneal Dystrophy Foundation. Thank you for making a difference in the lives here and abroad.

B&L

Thank you for sending helpful materials and your "Fuchs' Friends" group. It has been most helpful.

W.

I want you to know that I had my cornea replaced and my sight is much better.

I was so encouraged after I spoke with you.

Thank you for all you do.

D.

Thanks for all your good works on my behalf, as well as for others, and may 2016 be a happier, healthier year for all.

M.

Thank you so much for all the good work you do! You will never know the profound help you have given to those of us who have and are dealing w/fuchs'.

B.

Order our Free Literature at http://www.cdfpubs.org

1. Read about others who have tackled Fuchs’ Dystrophy and how they conquered it!
2. Learn more about the kinds of tests the specialist may perform on your eye and cornea and what the results mean.

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<thead>
<tr>
<th>328,787</th>
<th>260,200</th>
<th>8,700</th>
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<tr>
<td>People looked for information on The Corneal Dystrophy Foundation Website (since August 2009)</td>
<td>First time visitors to the website</td>
<td>New members joined Fuchs’ Friends, the online support group</td>
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New therapies on the horizon for corneal endothelial regeneration

By David Eveleth, PhD, Trefoil Therapeutics, and William Stewart, MD, PRN PharmaFarm

The need for an effective pharmaceutical therapy for treating corneal dystrophy is well recognized by cornea specialists, with 98% saying in a recent survey that they would use such a drug on patients suffering from Fuchs dystrophy. Now new research directed at ways to regenerate the corneal endothelial layer is yielding some promising results and may soon produce such a therapy.

In one such approach, Trefoil Therapeutics of San Diego, CA has taken a naturally occurring growth factor, FGF-1, that is part of the normal development of the cornea and supercharged it using molecular biology techniques. Also known as acidic FGF, it is a potent and broad spectrum signaling agent that functions by binding to high affinity transmembrane receptors present on corneal cells and is used by the body to promote repair and regeneration of damaged tissues. In collaboration with researchers at Florida State University, Trefoil has produced engineered FGF-1 (eFGF-1) proteins that are about 100 fold more potent than the normal FGF-1.

The goal of this research is to create a drug that could be used to regenerate the corneal endothelial layer without the need for surgery. In order to specifically target the corneal endothelial cell layer, the drug is intended to be administered by injection into the space between the cornea and the iris, where it will have direct access to the compromised corneal endothelial layer.

In laboratory studies including cell culture experiments and rabbit models of corneal dystrophy, Trefoil’s eFGF-1 molecules stimulate corneal endothelial cells to re-grow and accelerate the regeneration of the corneal endothelium (See Fig.). Data presented at the Association for Research in Vision and Ophthalmology (ARVO) meeting in 2015 suggested that the growth rate of human corneal endothelial cells could be more than doubled by application of an eFGF-1.

While this work is very promising, as with all new therapies this drug must pass a series of tests for safety and efficacy before being available to patients. The next steps in development are a series of safety studies in animals followed by clinical studies to evaluate the safety and potential efficacy. The first clinical studies are not anticipated to begin until late in 2017.

In addition to this approach, there are research efforts underway in at least two laboratories to grow corneal endothelial cells from stem cells in order to transplant these healthy endothelial cells into patients. Clinical trials with these cells have begun in Japan and are likely to start soon in the US.

The progress of research from the laboratory towards clinical testing reflects the hard work of both scientists in the lab and patients and clinicians advocating for corneal research. It is hoped that progress continues and new and effective treatments are on the way.
We thank our donors. With their support, resources to help those with Corneal Dystrophies were made available.
For the third year in a row, CDF will be participating in this year’s Silicon Valley Gives one-day fundraising event on May 3, 2016. This 24-hour event has benefited more than 800 participating nonprofits, 14,889 donors, and raised close to $15.8 million dollars for charities.

We are seeking sponsors for matching grants to encourage other donors to participate. The individual sponsorship amount doesn’t have to be very large since we can combine individuals’ sponsorships to meet the minimum. To contact us about this worthy venture contact the Executive Director: by email at cdfexec@gmail.com or by phone at 866-807-8965 ext 1