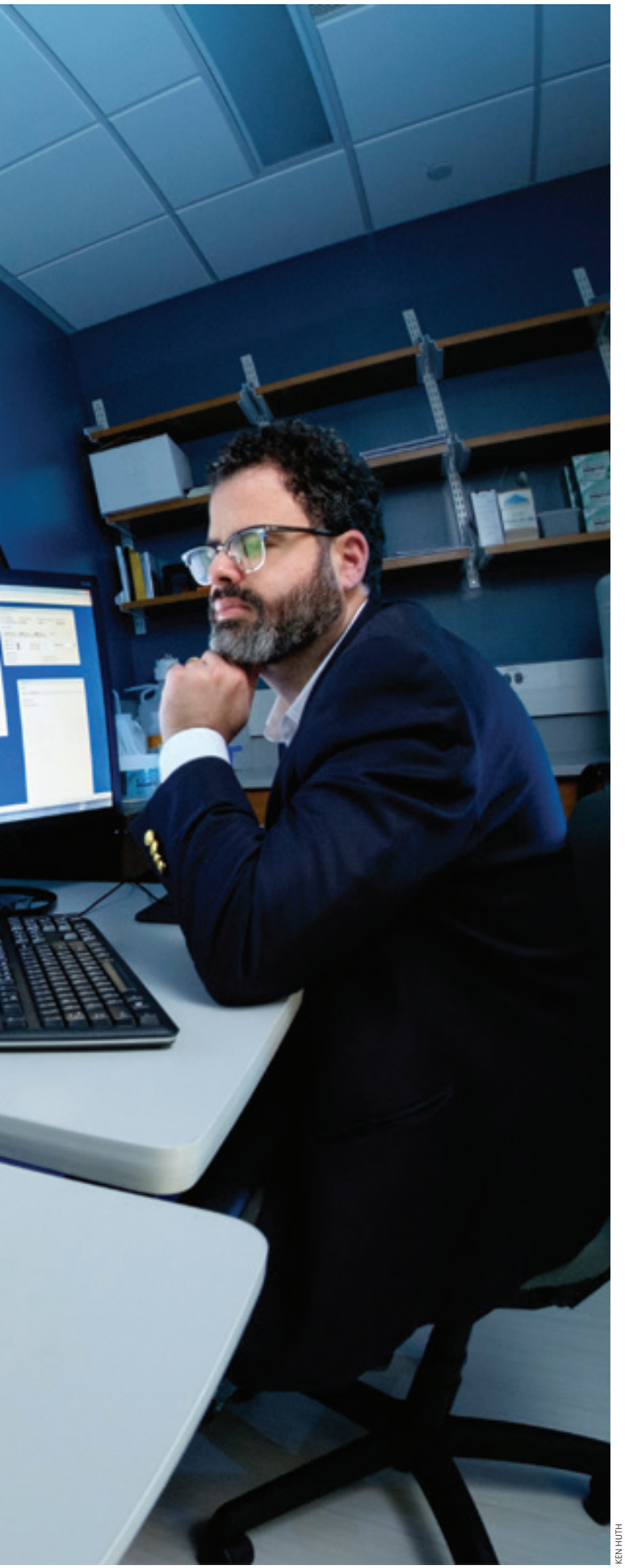
MIRACLES IN SIGHT SUPPORTS CORNEA RESEARCH AT DUKE EYE CENTER



KEN HUTH

Daniel Saban and other researchers at Duke Eye Center are working to develop new treatments for a range of debilitating eye disorders.

Everyone knows that the human eye is made up of distinct parts and regions—the cornea, the retina, the optic nerve, and so on. It is less commonly understood, says Daniel Saban, PhD, that funding for research and treatment of eye disorders tends to be similarly divided and compartmentalized.

That's why a recent $500,000 gift from Miracles in Sight to Duke Eye Center to support early career faculty research into diseases and disorders of the cornea is so important. The support, Saban says, brings together two rare but critical resources: funding for corneal research and expert scientists with the knowledge and skills to make important advances.

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"Unlike other diseases of the eye, such as age-related macular degeneration or glaucoma, very few foundational agencies support funding for ocular surface and corneal diseases," says Saban, assistant professor of ophthalmology and assistant professor in immunology. "And very few institutions in the world have the expertise in corneal and ocular disorders that Duke has. Miracles in Sight is getting funding into the right hands to make a difference for these patient populations."

Miracles in Sight, based in Winston-Salem, North Carolina, is one of the largest eye banks in the world. Its mission is to recover, process, and distribute ocular tissue for the restoration of sight through corneal transplantation and related medical therapy and research.

The gift to support corneal and ocular research follows close on the heels of another $500,000 donation in 2016 from Miracles in Sight to Duke Eye Center. That one will help establish a biorepository at Duke to expand the availability of eye tissue for research to help defeat potentially blinding eye diseases, including major causes of visual disability such as dry eye, macular degeneration, glaucoma, and diabetic retinopathy.

Taken together, the two recent gifts, totaling $1 million, reflect an important partnership between Duke and Miracles in Sight, which earlier provided funding to support an ophthalmology fellowship.

> by Dave Hart

"At Duke Eye Center, we have a strong commitment to our early- to mid-career faculty and pushing the edge of biomedical research," says Edward Buckley, T'72, MD'77, HS'81, the James Pitzer Gills III, MD, and Joy Gills Professor of Ophthalmology and chair of the Department of Ophthalmology. "Philanthropic support is an increasingly important avenue of support. These gifts from Miracles In Sight are great examples of funding important needs that will germinate ideas and collaborations beyond the scope of the initial gifts."

The gift to advance corneal research will provide much-needed resources that will enable early-career faculty such as Saban, Anthony Kuo, MD, and Gargi Vora, MD, to pursue research that otherwise would probably not be possible.

KEN HUTH

Daniel Saban, PhD, an assistant professor of ophthalmology and assistant professor in immunology.

Duke Eye Center faculty visit Miracles in Sight to thank the organization for its support of corneal research.

Saban studies ocular surface diseases, which include allergy, meibomian gland dysfunction, and other inflammatory disorders that affect the surface of the cornea. These diseases can cause debilitating problems ranging from chronic pain and irritation to impaired vision and blindness.

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"We've made a lot of progress in understanding these diseases," says Saban. "We've made some novel discoveries about the role of lymphocytes, for example, that could change the way doctors treat meibomian gland dysfunction. This funding will allow us to take those studies to the next level and develop the leads that we can translate to improved therapies."

The donation to create a biorepository for eye tissue at Duke will pilot a novel three-year program that will increase procurement of tissue for research, establish an eye donation registry that will allow donors to designate eye tissue for research if it isn't eligible for transplantation, and integrate data collection with Duke's electronic medical records system.

"In addition to our dedication to helping restore sight through transplantation, we are committed to supporting laboratory research that will advance our understanding of blinding diseases, leading to cures," says Dean Vavra, CEO of Miracles In Sight.

Many donors don't realize that even eye tissue too badly damaged by disease to be used in transplantation can be extremely useful in research that will move medical science ever closer to cures for some of the most damaging diseases. Eye tissue for research is in short supply, and the Miracles in Sight donation will help fill a serious need, says Daniel Stamer, PhD, professor of ophthalmology and biomedical engineering at Duke Eye Center.

"Donated human eye tissue for research is critical for understanding the root causes of eye disease," Stamer says. "Damaged tissue from devastating diseases such as glaucoma and macular degeneration provides valuable research material for these uniquely human conditions. While patients may think their eyes are broken, they may be surprised to learn that their eyes are incredibly valuable."