



## OPHTHALMIC RESEARCH

### Eye Bank Funds Promising Cornea Research

The Florida Lions Eye Bank recently awarded a \$27,000 grant to support research that may improve the outcome of cornea transplant surgeries and change the future of eye banking.

The funding supports the work of Alfonso L. Sabater, M.D., a fellow collaborating with Victor Perez, M.D. at the Bascom Palmer Eye Institute. Dr. Sabater's research focuses on regenerative medicine of the corneal endothelium. His group has identified a unique combination of molecules that are able to regenerate corneal endothelial cells.

How will this impact cornea transplants? Every year, more than 40,000 of these surgeries are performed in the United States. About 40 percent of transplants are needed to treat problems with the patient's endothelium, the thin, innermost layer of the cornea.

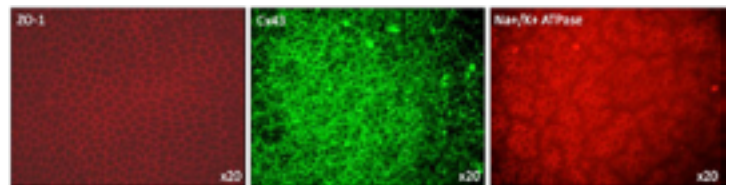
The endothelium plays an important role in the transparency of the cornea: when the endothelium fails, the cornea becomes cloudy, leading to a loss of vision. Human corneal endothelial cells do not replicate, so when these cells are lost or damaged from trauma



Alfonso L. Sabater, M.D.



Victor Perez, M.D.



*Fluorescently labeled corneal endothelial cells*

or disease, the resulting loss of vision is permanent.

But while eye banks around the country work to recover donor tissue to help restore sight, one out of five corneas recovered are unsuitable for transplant because of a low endothelial cell density. Unfortunately, an otherwise perfect cornea from a healthy donor can be discarded by an eye bank because of an insufficient number of cells in the endothelium. Investigation efforts by Dr. Sabater seeks a method to regenerate corneal endothelial cells. A breakthrough in this field would benefit tens of thousands of people in the United States alone, from patients in need of corneal transplants to eye donors and their families to the eye banks that link donors and patients.

This grant, provided by FLEB, will help to fund exploration of three different clinical applications of this technology:

- The use of these regenerative molecules to promote endothelial cell growth in donor

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## RESEARCH

### Investigating replacement of the corneal endothelium

- Continued from the front page

corneas during storage at eye banks. If endothelial cells in donor corneas can regenerate, fewer corneas will be discarded due to low cell density. In turn, this will mean that there will be more tissue available to serve a greater number of patients, and the quality of each graft will be improved.

- The second clinical application being researched is the use of these regenerative molecules in a medication such as an eye drop. Patients with early-stage endothelial disease or low-level trauma can use this eye drop to stimulate the regeneration of cells,

delaying or avoiding a corneal transplant.

- The final method being analyzed is the growth and transplant of endothelial cells grown in culture. Healthy cells grown in a laboratory from a donor cornea can be injected into the eye of a patient with late-stage endothelial disease. This method would allow for a single donor cornea to help several recipients. Furthermore, this procedure is simpler and less invasive than current methods of corneal transplantation.

The Florida Lions Eye Bank is honored to support the research of Dr. Sabater and his team in their work *Restoring the Beauty of Sight*.

## INTERNATIONAL RELATIONS

### FLEB Participates in Major Conferences

During the summer of 2015, FLEB Executive Director Elizabeth Fout-Caraza was featured as a speaker at two international conferences highlighting the importance of eye banking.

In June, the 98th Lions Clubs International Convention was held in Honolulu, Hawaii. Elizabeth Fout-Caraza served as a panelist at the Lions Eye Bank Seminar on the first day of the convention, where the discussion focused on eye banks and the valuable services they provide around the world. Elizabeth spoke about the history of the Florida Lions Eye bank and successful programs that have been supported by the Lions of Florida.

In August, Elizabeth represented the Florida Lions Eye Bank at the Pan-American Congress of Ophthalmology's Eye Banking Symposium in Bogota, Colombia. This seminar explored aspects of eye bank-

ing in the U.S. and Latin America. Elizabeth spoke about the key elements attributing to the success of eye banking in the U.S. and on the future of eye banking worldwide from her perspective as executive director of FLEB. The Florida Lions Eye Bank is proud to have been invited to share its experiences and knowledge at these two prestigious conferences.



## LEADERSHIP

### Eye Bank Mourns Passing of President Blair Anderson

It is with deep sadness that the Florida Lions Eye Bank announces the passing of its 2015-16 President Lion Blair R. Anderson.

President Anderson passed away on October 21, 2015 at age 62. A resident of Boca Raton, Mr. Anderson was an active community leader and was installed as President of the eye bank in June 2015 after serving on the Board of Directors for many years.

In addition to his dedicated volunteerism to the eye bank, Mr. Anderson served as president of the Boca Raton and Pompano Beach Lions



Clubs, and the Florida Atlantic University Alumni Association. The board has chosen Lion Bob Hilliard, immediate past president, to carry on Mr. Anderson's work for the duration of his term.

Blair Anderson's leadership will be missed, and our thoughts and prayers are with his family and loved ones.

## STAFF NEWS

### Fifth Certified FLEB Technician is Recognized



Technician Sabrina Rodriguez recently earned the Certified Eye Bank Technician (CEBT) standing, becoming the fifth FLEB staff member endorsed by the Eye Bank Association of America. CEBT status is attained with a passing score

on a written exam, as well as a demonstration of proficiency in the recovery of corneoscleral rims. Sabrina earned a bachelor's degree in Biology from Florida International University and has been with FLEB for for more than two years as a recovery technician. Congratulations, Sabrina!

### New Director of Public Relations Joins FLEB



Mara Budnetz has joined the Florida Lions Eye Bank team as the Director of Public Relations. She comes to FLEB with six years of experience in both eye and tissue banking as a recovery technician, quality assurance specialist and

family services coordinator. She has a bachelor's degree in English from the University of South Florida, and looks forward to sharing information about the meaningful work of the eye bank.

### Receive Publications Via Email

Those who prefer to receive this newsletter and other information and messages via email, can subscribe to our email mailing list.

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[www.fleb.org](http://www.fleb.org)

## EVENTS

# No Tricks, All Treats at Fall Open House

Lions from throughout South Florida gathered for a pre-Halloween Fall Open House at the Florida Lions Eye Bank. The not-so-spooky evening included presentations in the auditorium by Medical Director Sander Dubovy, M.D. and Executive Director Elizabeth Fout-Caraza. FLEB staff in costumes led tours of the eye bank facilities and the Bascom Palmer library. The groups met back at the Retter Patio for fellowship, music and a delicious dinner.



*Immediate Past President Lion Colleen Pinkerton (L) with Executive Director Elizabeth Fout-Caraza.*



*FLEB Staff show off their Halloween costumes*



# FLEB to Offer New Corneal Graft in 2016

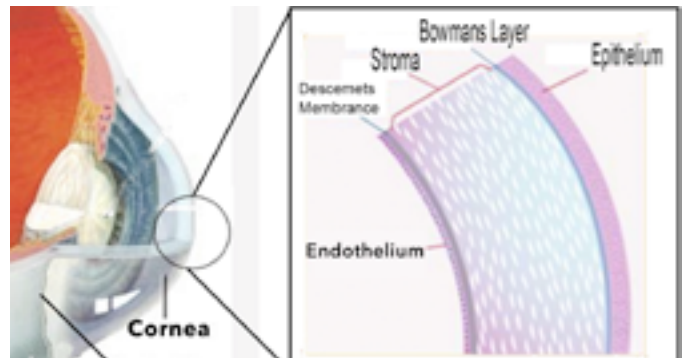
Beginning in 2016, the Florida Lions Eye Bank will be offering a new type of corneal graft for use in transplant surgery that results in better vision, shorter healing time and lower rejection rates, according to surgeons and patients using the procedure.

Called DMEK or Descemet's membrane endothelial keratoplasty, it is the latest in a series of innovative corneal transplants that use only some of the cornea layers. In this case, the two innermost layers – the Descemet's membrane and the endothelium.

To create a graft suitable for DMEK, donor corneas are specially prepared by trained eye bank technicians, who painstakingly remove the 15-mm-thick Descemet's membrane and endothelium under a microscope. The thickness of the resulting graft is about 1/5 the diameter of a human hair.

DMEK is the latest in a series of advances in corneal transplants. The traditional cornea transplant was pioneered more than 100 years ago and replaces all five layers of the patient's cornea with all five layers of the donor.

About 10 years ago, a surgical innovation known as DSEK was introduced. This involved the transplantation of the donor endothelium,



Descemet's membrane and a portion of the stroma. This procedure was later refined by an automated method of preparing donor tissue called DSAEK.

In contrast to DSAEK, DMEK does not include the stroma, a layer of the cornea some doctors say can reduce vision. Processing tissue for DMEK surgery may also benefit eye banks. Presently, regulations require that one cornea can be used to help only a single patient. However, changes may permit tissue that is unused during DMEK to be used for other procedures, such as a limbal stem cell transplant.

DMEK does not replace traditional corneal transplants. Some patients will still require a full-thickness procedure to restore their vision. Patients eligible for DMEK will benefit from the specially-prepared tissue FLEB will provide for this revolutionary procedure.

## FLEB Forms Medical Advisory Committee

Eye banking and corneal transplantation have seen rapid advancement during the past decade, largely due to collaboration between eye banks and corneal surgeons. In this spirit, the Florida Lions Eye Bank's Board of Directors has created a Medical Advisory Committee.

The committee consists of 12 corneal surgeons from South Florida who serve as a resource to the eye bank. The purpose of this committee is to recommend and support quality improvements, and to advise FLEB's leadership of new

developments and opportunities.

The first meeting of the Medical Advisory Committee was in October of 2015. The surgeons, each serving a 2-year term, met with Executive Director Elizabeth Fout-Caraza and Medical Director Sander Dubovy, M.D. The group provided valuable suggestions to FLEB leadership, such as the creation of an information packet about the eye bank to be distributed to corneal transplant recipients.

# Donations

## Received

NOVEMBER 1, 2014 - OCTOBER 31, 2015

### General

Ms. Maria C. Abellon  
Mrs. Mildred Agronow  
Mr. Roberto Aguilera  
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Mr. Celestino Irizarry  
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Ms. Helen Kastenbaum  
Mrs. and Mr. Harriet F. Katz  
Raananah Katz, M.D.  
Shalesh Kaushal, M.D.  
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Mrs. Edith Lopez  
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Ms. Hilda Seitlin  
Mr. Lawrence W. Shafer  
Mrs. Jamela Shaffee  
Mrs. Bea Sherman  
Dr. Alan M. Silbert  
Mrs. Gail Simmons  
Mr. Sam Snyder  
Mrs. Elaine Solas  
Southern Dames of America  
of Ft. Myers  
Ms. Leona Spector  
Ms. Betty Lou Steen-Clarke  
Mr. Robert Sutton  
Mr. William Thode  
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Mrs. Alba P. Vecino  
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Ms. Hazel Wallace  
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Mr. Paul A. Ziarnowski  
Mr. Leon Zwick

# Donations

## *Lions Clubs*

Aventura North Miami Beach Lions Club  
Belle Glade Lions Club  
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Bonita Springs Lions Club  
Bradenton Lions Club  
Coral Springs Downtown Lions Club  
Coral Way Colombian Lions Club  
Dania Lions Club  
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Hialeah Pan American Lions Club  
Hollywood Colombian American Lions Club  
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Marco Island Lions Club  
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Miami Doral Lions Club  
Miami Five Stars Lions Club  
Miami Interamerican Ecuador Lions Club  
Miami Lakes Lions Club  
Miami Lautaro Lions Club  
Miami Lions Club  
Miami Managua Lions Club  
Miami Springs Lions Club  
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North Fort Myers Noon  
North Port Lions Club  
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Sebastian Lions Club  
Sopchoppy Lions Club  
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West Miami Sunshine Lions Club  
West Palm Beach Lions Club  
Wildwood Sumter County Lions Club  
Zephyrhills Lions Club

## **Leave a Legacy: Bequests**

We encourage our friends and supporters to name the Florida Lions Eye Bank as an organization that will receive a portion of your estate upon your passing.

We will use your generous gift to help purchase equipment critical in testing and processing ocular tissue. Your gift will also continue to grow through our fund. **Contact Executive Director Elizabeth Fout-Caraza for more information.**

## **Making a Donation Online Has Never Been Easier - Or Safer**

The Florida Lions Eye Bank encourages donors to use our new online system to easily and safely show your support of our important mission. Go to [fleb.org](http://fleb.org) and click on "Donate Funds" in either English or Spanish. In minutes, you can make a donation with any major credit card through the USA E-pay system, which is fully compliant with all online safety standards. **Go to [www.fleb.org](http://www.fleb.org) today!**



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## COMMUNITY OUTREACH

### FLEB Provides Training to Funeral Directors

The Florida Lions Eye Bank recently hosted an instruction course for South Florida funeral directors interested in helping us advance our mission of *Restoring the Beauty of Sight*. The one-day course for licensed funeral directors from Miami-Dade, Broward, Palm Beach and Collier counties taught techniques for the recovery of ocular tissue for research and education. Sixteen participants received a certificate of completion, a set of instruments and a cooler.

This free course is presented every 18-24 months to funeral directors and reinforces their essential role in FLEB's ability to provide research and teaching tissue to scientists and ophthalmologists seeking to find treatments, cures and new techniques to treat patients with



*Funeral Directors and FLEB staff at recent instruction course.*

ophthalmic disease. Each year, the eye bank provides more than 500 eyes to researchers and ophthalmologists for research and training purposes and nearly all of these are recovered by local funeral directors. As always, all tissue distributed by the Florida Lions Eye Bank for research or education is provided at no cost.