



DISCOVERY

THE DISCOVERY EYE FOUNDATION



Summer 2009

Women Prone to AMD Vision Loss

DEF to support Women's Vision Research

The Discovery Eye Foundation supports research, education and advocacy related to sight-threatening eye diseases and their treatments, improving the quality of life for patients and their families.

DEF Researchers Present at ARVO

DEF is a proud participant at the annual international ARVO (Association for Research in Vision and Ophthalmology) meeting. Nearly 10,000 participants share the latest in research, treatments and information on ophthalmology. DEF-sponsored researchers gave more than 30 presentations on a wide range of sight-saving research, including corneal and retinal stem cells, genetics, glaucoma, AMD, vaccines, herpes infections and retinal drug safety testing.

Age-related macular degeneration (AMD) is the leading cause of vision loss in the aging population throughout the developed world. It involves 20–30% of people ages 65–74 and 35–40% of people ages 75–84. With baby boomers aging, some 21 million people could eventually develop AMD. Even adjusting for the fact that women live longer, women who are 75 or older are two times more likely to develop mild AMD and more than five times more likely to develop severe AMD than men.

Mitochondria (see box) play a key role in aging and are altered in Alzheimer's and Parkinson's diseases, both of which occur later in life. This is similar to the occurrence of AMD, which does not manifest itself until people reach their 50s or 60s. The reduction of estrogen that occurs in women at this stage of their lives also may be a factor. Gender differences have been reported in AMD, Alzheimer's disease and cardiovascular disease. Mitochondria from women are different from those in men; studies have shown mitochondria provide energy more efficiently if estrogen is present; energy decreases if estrogen is removed.

What are Mitochondria?

Mitochondria produce the energy for cells to function, much like the battery in the flashlight. Once the battery gives out, the flashlight dies. The same is true for cells: Once the mitochondria are damaged and degenerate, the cells continue to lose function and ultimately die.

Women's Vision Research, supported by DEF, will explore the relationship between hormones and mitochondria; it will examine the possibility of repairing or replacing poorly functioning mitochondria, which cause cell death, to maintain the health of the retina and reduce the occurrence of AMD. The project team will be led by UC Irvine researcher Dr. Cristina Kenney (see next page), along with other UC Irvine researchers and members of the Retina-Vitreous Associates Medical Group.

To support Women's Vision Research, visit www.discoveryeye.org/you-can-help.

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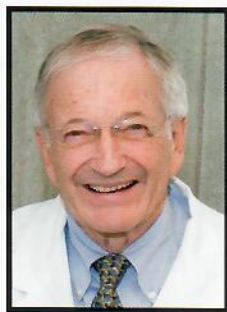
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“We fund cutting-edge research not often funded by other sources.”

From the Medical Director

One of the special things about DEF is the fact that we fund cutting-edge research not often funded by other sources. A perfect example of this is the project discussed in our front-page story: Women's Vision Research.

Women are disproportionately prone to losing their vision due to age-related macular degeneration (AMD). DEF-funded researchers are leading the effort to study the factors that lead to the high incidence of AMD in women who are 75 and older.

It's a problem all too familiar to Simone Kent, whom you will meet in this newsletter. Her mother went blind largely due to AMD, and now Kent, an octogenarian herself, is dealing with the effects of the disease in both her eyes. As she finds ways to cope, Kent now worries about her children and grandchildren having to deal with the effects of AMD. Our work continues with the hope that they won't have to.

FOCUS: DEF Researcher

Dr. Cristina Kenney is a professor and director of laboratory research at the Department of Ophthalmology at UC Irvine.



Degrees and Academic Credentials: BS in biology and chemistry, University of New Mexico; PhD in anatomy and biochemistry, University of Arizona; MD, University of California, Los Angeles.

Areas of Expertise and Research: genetic and biological research related to disorders of the retina and cornea, specifically AMD, diabetic retinopathy and keratoconus.

Why DEF is Important to Your Work: “DEF has been very supportive of my research and has provided start-up funding for cutting-edge projects. In addition, the areas of interest to me have paralleled the DEF-supported patient-outreach programs in AMD and keratoconus. This has allowed a broader view that combines research and the clinical aspects of the eye diseases.”

Research Goal(s): “To conduct translational research in the fields of AMD, diabetic retinopathy and keratoconus that will provide beneficial outcomes for patients.”



National Keratoconus Foundation Meets and Greet's Nationwide

NKCF sponsored its 10th Roundtable Discussion Group meeting in May at the annual meeting of the Association for Research in Vision and Ophthalmology (ARVO) in Florida. This meeting brings together clinicians and researchers from various disciplines who are presenting their KC research at the conference. The roundtable introduces many to The Discovery Eye Foundation and NKCF, and offers them a forum to meet and discuss all aspects of KC in an informal setting.

NKCF participates in a number of ophthalmology meetings to raise awareness of the organization. We

participated in the Global Specialty Lens Symposium in January and the American Optometric Association Meeting in June. These meetings give us an opportunity to network with eye-care providers and offer them information about the organization and the services we offer their KC patients.

In addition to the Los Angeles Vision Symposium (see back page), NKCF will co-sponsor two Keratoconus Patient Education Seminars: in Indianapolis on Aug. 29 and in Teaneck, NJ, on Nov. 7. For information about these seminars, please visit www.nkcf.org.

KC Mom Finds Hope and Heart at NKCF

When 11-year-old Michael Caddigan was diagnosed in January 2008, his keratoconus was a minimal disability in his right eye. By April 2009, the Long Island, NY, native's vision had deteriorated, and he developed KC in his left eye, as well. And on top of that, he was contact-lens intolerant. His doctor told the Caddigan family that Michael's only hope was a corneal transplant and that he could no longer help them.

"With a broken heart and nowhere else to turn, I found the National Keratoconus Foundation," Michael's mother, Maryalice Caddigan, says. "I can't say enough about the heartfelt concern and kindness I was given on each and every phone call."



"With a broken heart and nowhere else to turn, I found NKCF."

A nurse herself, Caddigan credits NKCF Director Cathy Warren, RN, with giving her the assistance and much-needed resources to get help for her son.

The Caddigans have trips planned to the Boston Foundation for Sight for Michael to be fitted for scleral lenses, and to Germany, where he plans to undergo corneal cross-linking surgery.

"One hundred percent of this intervention is because of Cathy," Caddigan says. "Aside from the fact that she has been such a support to me — even on my worst days when I thought I would completely crumble — she has put us in touch with doctors, hospital facilities and even helped me find a hotel in Germany."

"I have never found such comfort as I have with Cathy and NKCF. I hope they will always keep up the wonderful work they are doing."

Everybody Loves Raymond, Doris and the Macular Degeneration Partnership

Doris Roberts received an Emmy Award for her role as the beloved but meddlesome mother on *Everybody Loves Raymond*, and her spunky character is especially popular with members of AARP. She will be speaking on behalf of the Macular Degeneration Partnership at the upcoming AARP Life@50+ Event in Las Vegas.

Life is Fabulous — Make Sure You See It! is the title of the “lifestyle session” on age-related macular degeneration (AMD), which takes place on the opening day of the con-

ference, Oct. 22, 2009. In addition to Roberts, the panel includes Steven D. Schwartz, MD, chief of the Retina Service at Jules Stein Eye Institute at UCLA, and MDP Director Judi Delgado. Attendees will learn about AMD, protective lifestyle changes, treatment options and research.

Each year, MDP coordinates the AARP Vision Pavilion, which includes exhibits by various vision organizations and demonstrations of low-vision devices. Roberts and the Vision Pavilion are supported by an unrestricted grant from Genentech.



Past, Future Inspire Support-Group Attendee

Simone Kent met her husband, Leon, in her native France when “he liberated Paris,” following World War II, she says, adding she was on the first “war-bride ship” to the United States. They are still happily married, nearly 64 years later: “He’s deaf and I’m blind. We complete each other,” she says with a laugh.



Kent’s mother had age-related macular degeneration (AMD), cataracts and glaucoma; she was totally blind at the time of her death in 1990. Consequently, Kent was not surprised in 2000 when her doctor found she also had some signs of AMD. Since then, her eyesight has deteriorated: She has wet AMD in one eye, dry AMD in the other, and she has undergone cataract surgery in both eyes.

One of the key things that has helped her is the monthly Macular Degeneration Partnership support group in Los Angeles. “It is a great help for both moral support and information,” Kent says, crediting MDP Director Judi Delgado with sharing “tips to work around the illness” and bringing in experts to showcase the latest devices and tools. It was there Kent discovered the books-on-tape player that allows her to continue reading, one of her favorite activities.

Kent likes to keep up to date — especially on news from France and news about eye disease. “All this information is not just for me anymore,” she says. “My mother had macular degeneration, I have it, and so now I need to worry about my children and grandchildren.”

Golf and Giving Get Grandmother Going

Frances Hirsh loves golf. And she's good at it. So good, in fact, that the octogenarian was published in the *Guinness Book of World Records* in 1991 for winning the most ladies' private golf-club championships (44) in the United States.

Hirsh, a former real-estate broker, and her late husband, Harold, met Dr. Henry Nesburn (father of DEF Medical Director Dr. Tony Nesburn) at their golf club in the 1950s. He became their ophthalmologist and friend. "When Tony joined his father's practice in 1968, he became my eye doctor," Hirsh recalls. He helped her through two cataract surgeries and other eye conditions that have developed through the years.

Harold first became a donor to DEF several decades ago through the Harold Hirsh Foundation, and Frances continues giving to this day. "I believe greatly in charitable contributions," says Hirsh, who is

also a donor to St. John's Hospital and the Kayne Eras Center. "DEF is one of the most important organizations I can think of to donate to for the research they do. The eyes are so important, and the foundation people are very dedicated to their patients and their profession."



Hirsh, a Los Angeles native, likes to spend time with her step-children and grandchildren. She has no intention of letting her busy life, her age or her eye issues interfere with her golfing. She also plans to continue her role as a DEF donor. "I've been a loyal contributor," she says. "And they've been loyal to me."



DEF Web Tip

Google Alerts let you sign up to receive e-mail alerts on topics of interest to you; it's a great way to ensure you get the latest news about eye health. Visit www.google.com/alerts, and enter search terms such as *Discovery Eye Foundation*, *macular degeneration*, *keratoconus* and *eye disease*. Now all the news will automatically come to you.

Social Studies

DEF increases Web presence through online communities

The Discovery Eye Foundation has been expanding its online presence, especially on social-media Web sites. You will now find DEF included on GreatNonprofits, Facebook and MySpace. DEF is also part of GlobalGiving, an online marketplace that connects individuals to causes they care about. DEF participated in a fundraising competition, raising more than \$4,000 in less than a month, to be on the site.

"We have successfully revamped all three DEF Web sites (www.discoveryeye.org, www.nkcf.org and www.amd.org), and we are

now working to reach even more people dealing with eye diseases," says Susan DeRemer, vice president of development for DEF. "By participating in these sites, which are growing in popularity by the second, we can reach a broader audience. The sense of community is good for both DEF and the people we serve."

DeRemer also hopes newsletter readers will take a moment to post reviews of DEF, NKCF and MDP on www.greatnonprofits.org. "The more feedback we get, the better we can serve our constituents and promote DEF to others," she says.

In This Issue:

Updates From NKCF & MDP

DEF Does Social Media

MDP Welcomes *Everybody Loves Raymond's* Doris Roberts to AARP Event

New Research Project on Women & AMD

Visit our Web site: www.discoveryeye.org

UPCOMING EVENTS

september **21**
AMD Week

october **2**
DEF Research-Lab Tour
Guided tour of the Morris S. Pynoos Eye Research Laboratories at UC Irvine

october **11**
Los Angeles Vision Symposium

october **22**
MDP Vision Pavilion
at AARP Life@50+ Event, Las Vegas

november **7**
KC Patient Education Seminar

For information about events, visit www.discoveryeye.org

DISCOVERY
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Los Angeles Vision Symposium

Sunday, October 11, 2009

Skirball Cultural Center

2701 North Sepulveda Blvd., Los Angeles, CA 90049

registration 8–9 am • program 9 am–3 pm

continental breakfast, lunch and parking are included

Some of the world's top physicians and scientists will cover a variety of topics, including:

Genetic & Stem Cell Research • **Treatment for Macular Degeneration, Keratoconus and Glaucoma** • Clinical Research and Trials • **Living With Eye Disease** • Nutrition

Please register online at www.discoveryeye.org.

\$30 per person. Space is limited; registration required.

Sponsorships and vendor space are available.

For more information, visit www.discoveryeye.org, or call 310-623-4466.