

# EYE

Spring 2006

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## The Foundation Fighting Blindness

Since its founding in 1971, FFB has been dedicated to funding innovative research to find preventions, treatments and cures for inherited retinal degenerative diseases that lead to blindness and affect more than 9 million people in the United States.

Today, scientific progress is moving with unprecedented speed. In many exciting areas of vision research, our advancing knowledge promises to revolutionize the way eye disease is detected, treated and prevented. Many lines of research into the causes of blindness and failing eyesight are currently being pursued at the Jules Stein Eye Institute with promising results, such as identifying the underlying genetic causes of retinal degenerative diseases and developing pharmaceutical and genetic interventions to prevent and restore vision loss. Ongoing research is moving rapidly from the laboratory to clinical trials and is offering hope to improve the lives of those who suffer from such devastating conditions.

The Foundation Fighting Blindness (FFB) has been a vital force in driving this effort. Since its founding in 1971, FFB has been dedicated to funding innovative research to find preventions, treatments and cures for inherited retinal degenerative diseases, such as retinitis pigmentosa, macular degeneration and Usher Syndrome—diseases that lead to blindness and affect more than 9 million people in the United States. Over the years, the Foundation has raised more than \$225 million and funded thousands of research studies at hundreds of prominent institutions worldwide in a broad range of promising areas such as cell biology, drug delivery, genetics, gene therapy, retinal cell transplantation, artificial retinal implants and pharmaceutical and nutritional therapies. The foundation has also been instrumental in creating public awareness about these diseases through a tireless public awareness campaign by volunteer-led groups across the country.

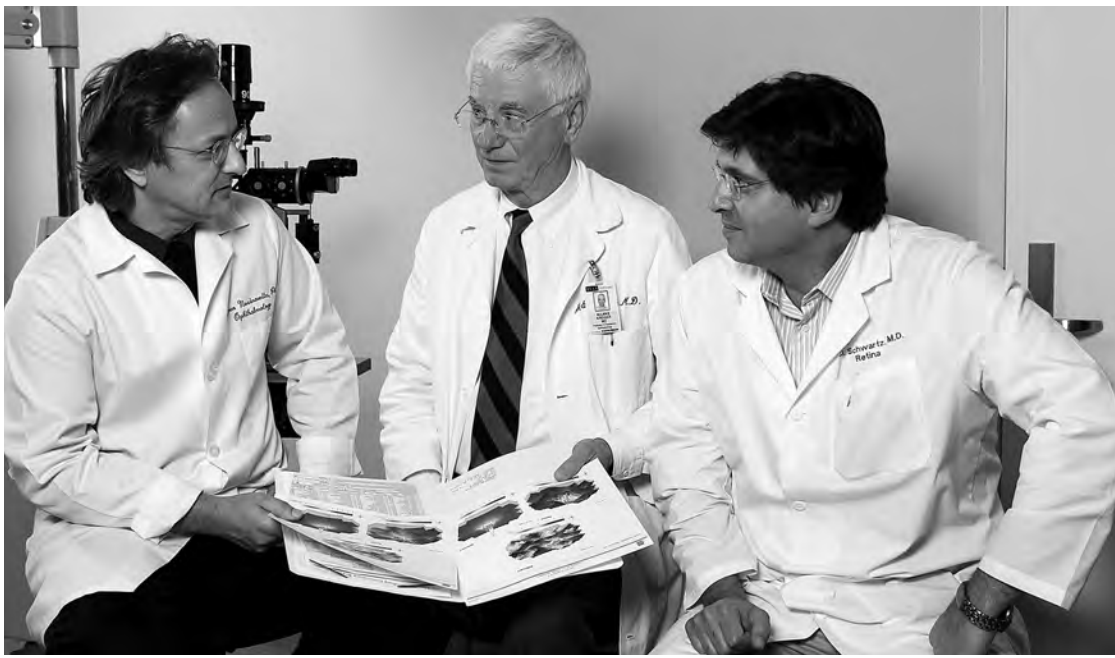
### Supporting Research at JSEI

The Jules Stein Eye Institute has been a grateful recipient of FFB's extraordinary philanthropy, accruing more than \$10 million in research funding since 1977. **Bartly J. Mondino, MD**, Director of the Jules Stein Eye Institute and Chairman of the UCLA Department of Ophthalmology, credits the organization with playing a critical role in advancing our understanding of how the retina works and the underlying causes of retinal disease. "FFB has been funding pioneering research at the Institute for more than three decades," says Dr. Mondino. "When it was founded, very little was known about inherited retinal degenerative diseases, beyond their devastating outcomes." Thanks to the organization's single-minded focus and ongoing generosity, FFB-funded scientists at the Institute have made several key advancements and are poised to develop therapeutic interventions for inherited retinal diseases in the relatively near future. "It is an exciting time to be in ophthalmology because in the next few years we will see major steps forward in treatments for some diseases that were previously untreatable," exclaims Dr. Mondino.



Drs. Dean Bok (left) and Gabriel Travis discuss a recent paper on Vitamin A metabolism in the retina.





Left to right, Drs. Nusinowitz, Kreiger and Schwartz discuss physiological findings obtained from a patient with Stargardt disease.

### Advancing Understanding

Dean Bok, PhD, Dolly Green Professor of Ophthalmology and Professor of Neurobiology at UCLA, remembers when FFB approached the Institute to see if we wanted to be a center for support. It was the 1970s and, at that time, the organization was called the National Retinitis Pigmentosa Foundation. Dr. Bok and his collaborators Richard W. Young, PhD, and Michael O. Hall, PhD, were studying the retina and observed that there is a dynamic component in the cells that detect light, called photoreceptors. They showed that the retinal pigment epithelium (RPE) ingests and disposes of 10 percent of the photoreceptors' light-sensitive components everyday, and this material is replaced daily in a process of rejuvenation. "The discovery that photoreceptors are in a very dynamic state, constantly renewing their light-sensitive components, was very exciting," says Dr. Bok.

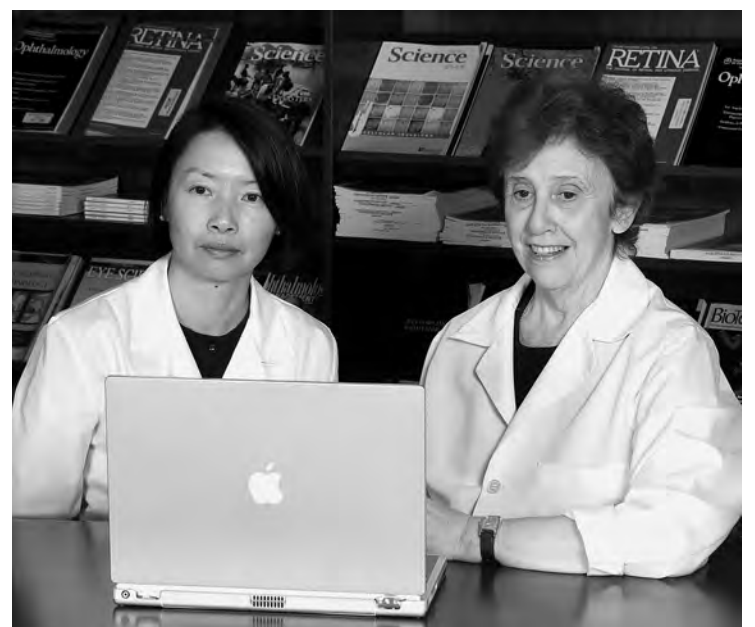
This highly complex interplay between RPE and the photoreceptors proved to be key to understanding the underlying causes of Stargardt disease, an early onset form of macular degeneration resulting from a mutation in the *ABCR* gene. Recent contributions from Gabriel H. Travis, MD, Charles Kenneth Feldman Professor of Ophthalmology and Co-Chief of the Vision Science, show that when things go wrong—like in gene mutations—there is collateral damage to the RPE. In a study supported by FFB, Dr. Travis and his colleagues created a mouse model of Stargardt disease with a "knock out" mutation in the *ABCR* gene. They found that the gene mutation causes toxicity in the photoreceptor outer segments and, when ingested, damages the RPE. "It's like the RPE is taking a bite of a poisoned pill and becomes severely compromised," Dr. Bok explains. The Stargardt disease process illustrates the importance of a healthy RPE-photoreceptor cell relationship to the survival of the retina and preservation of vision."

The very early studies about the dynamic state of photoreceptors and our current discoveries about Stargardt disease are beautifully linked. Between that span of time, FFB-assisted studies have identified other significant disease-causing genes and gene-related processes. **Debra B. Farber, PhD, DPhhc**, Karl Kirchgessner Professor of Ophthalmology, who along with Dr. Bok serves on FFB's scientific advisory board, has concentrated much of her research on retinitis pigmentosa, a group of inherited eye diseases that causes the degeneration of photoreceptor cells in the retina. Her laboratory cloned and characterized the gene causing the *rd* mouse disease (a recessive form of retinitis pigmentosa), and used gene therapy to rescue the *rd* mouse photoreceptors. Her laboratory also isolated the *RP1* gene responsible for a dominant form of the disease. Dr. Travis' laboratory demonstrated that mice with the spontaneous mutation, *retinal degeneration slow*, or *rds*, completely lack the light-sensitive outer segment of the photoreceptors, and helped to show that mutations in the corresponding human gene are responsible for retinitis pigmentosa in some families.

Progress has been made in isolating and characterizing the genes involved in other inherited retinal degenerative diseases. Using animal models, Dr. Farber's laboratory isolated the gene causing X-linked juvenile retinoschisis (XLRS)—a disease diagnosed in childhood that causes progressive loss of central and peripheral vision—and characterized biochemical features of retinoschisis, the product of the XLRS gene. The laboratory also isolated the gene responsible for Enhanced S-Cone Syndrome, an early childhood disease that causes increased sensitivity to light and visual loss with night blindness. "Our ultimate goal is to apply knowledge of the retina gained through research on animals and humans toward curing retinal degenerative diseases," says Dr. Farber. "We've made great strides in understanding these diseases and are positioning ourselves to achieve breakthroughs for their cure in the coming years."

### Current FFB Grant

While research at the Institute spans the spectrum of ophthalmic and visual system diseases, a major focus of the JSEI Research Center for the Study of Retinal Degenerations is Stargardt macular dystrophy. This year the FFB is funding research by seven JSEI scientists—Drs. Bok, Farber, and Travis, and colleagues **Allan E. Kreiger, MD**, Professor of Ophthalmology; **Steven Nusinowitz, PhD**, Assistant Professor of Ophthalmology; **Steven D. Schwartz, MD**, Associate Professor of Ophthalmology and Chief of the Retina Division; and **Xian-Jie Yang, PhD**, Associate Professor of Ophthalmology, in highly integrated and interactive areas—identification/characterization of patients with Stargardt macular degeneration, and pharmacologic and genetic intervention in a mouse model of the disease—to set the stage for treatment of this disease.



Drs. Xian-Jie Yang (left) and Debra Farber review experimental results and plan the strategy they will use in their next gene therapy studies.

Dr. Bok, coordinator for the FFB grant, explains the center's two-pronged approach, "We have found the genes that cause Stargardt disease and understand the underlying mechanisms causing the disease process. We now need to try different kinds of treatments—whether gene replacement therapy or more conventional drugs—on animal models, and go out into the human population and find people who have this disease so that we can enroll them in treatment trials once we have reason to believe that the treatments will work."

JSEI scientists are excited about this new era in vision research. They anticipate that promising therapies will move rapidly from the laboratory to clinical trials and from there will help prevent and cure retinal degenerative diseases, and are thrilled to facilitate this process. Dr. Farber exclaims, "Before our emphasis was on finding the genes for retinal degenerative diseases. Now we have come to the level of treating these diseases!"

## EYE

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## VISION SCIENCE CONFERENCE



Over 45 basic scientists and clinical researchers attended the Eleventh Annual Vision Science Conference in Oxnard, California.

On September 23-25, 2005, over 45 basic scientists and clinical researchers gathered for the Eleventh Annual Vision Science Conference at the Embassy Suites, Mandalay Beach Resort in Oxnard, California. The event was sponsored by the National Eye Institute Vision Science Training Grant and the Jules Stein Eye Institute.

Following tradition, the ethics seminar marked the opening of the conference. The attendees were divided into discussion groups to deal with a wide range of controversial issues and opinions of topical interest to the field, such as research competence and data falsification. At the conclusion of the session, each group shared their beliefs and ideas fostering lively discussion among faculty and trainees. The conference included informative and thought-provoking presentations by guest speaker **Jonna Engle, PhD**, Marine Reserves Outreach Specialist of the Channel Island Marine Sanctuary, who discussed her current investigations and views on research ethics, and keynote speaker **Joseph Demer, MD, PhD**, Professor of Ophthalmology and Neurology, who described his research on active rectus muscle pulleys. The diverse group of participants offered variety in their poster presentations and talks throughout the weekend. Open discussion followed each presentation, providing trainees with an opportunity to answer questions and receive feedback.

This year's conference planning committee included committee chairs **Joanna Kaylor, PhD**, and **Andrew Doan, MD, PhD**, as well as **Evan Hsieh**, **Angela Pool**, **Alejandra Young**, **John McCoy**, **Anita Narasimhan**, and **Sonia Jones**, Vision Science Grant Coordinator.

## AESTHETIC FACIAL SURGERY AND REJUVENATION COURSE

The Aesthetic Facial Surgery and Rejuvenation course was held at the Temecula Creek Inn in Temecula, California, on July 30-31, 2005, under the auspices of the Orbital and Ophthalmic Plastic Surgery Division. This course, which combines video presentations and didactic lectures, draws ophthalmologists from around the world to learn about the latest advances in aesthetic and reconstructive surgery of the eyelids and face, including many that have been pioneered at the Jules Stein Eye Institute. The annual Robert Axelrod Memorial Lecture was given by **Yoash R. Enzer, MD**. His lecture was entitled "FaSuLa: The New Concept for Evaluation and Staged Surgical Management of Acne and other Facial Scars."

### Course Directors

Henry I. Baylis, MD  
Robert Alan Goldberg, MD  
Norman Shorr, MD

Don O. Kikkawa, MD  
Jonathan W. Kim, MD  
Jerome R. Klein, MD  
Tanuj Nakra, MD  
Rona Z. Silkiss, MD

### Course Speakers

Cynthia A. Boxrud, MD  
Richard W. Bryant, MD  
Raymond S. Douglas, MD, PhD  
Michael J. Groth, MD  
Jonathan A. Hoenig, MD

Kenneth D. Steinsapir, MD  
Angelo Tsirbas, MD

### Robert Axelrod Memorial Lecture

Yoash R. Enzer, MD



Left to right, course directors Dr. Robert Goldberg, Chief of the Orbital and Ophthalmic Plastic Surgery Division at the Jules Stein Eye Institute, and volunteer clinical faculty Drs. Henry Baylis and Norman Shorr, congratulate Dr. Yoash Enzer (second from right), a JSEI ophthalmic plastic surgery fellow from 1992, on being named the Robert Axelrod Memorial Lecturer.

CELEBRATING

40 YEARS

JULES STEIN EYE INSTITUTE

Clinical and Research Seminar

May 19-20, 2006

RPB Auditorium

### ◆ 37TH JULES STEIN LECTURER

George B. Bartley, MD  
Mayo Clinic, Jacksonville, FL

### ◆ 3RD BRADLEY R. STRAATSMAN LECTURER

Uwe Pleyer, MD  
Charite-Universitätsmedizin, Berlin, Germany

### ◆ 3RD THOMAS PETTIT LECTURER

Todd P. Margolis, MD, PhD  
University of California, San Francisco, CA

For more information please contact:

Debbie Sato 310.825.4617, sato@jsei.ucla.edu

## CATARACT SURGERY SPECIAL FOCUS: MULTIFOCAL LENS AND RELATED TOPICS

Members of the California Academy of Ophthalmology along with residents from the King/Drew Medical Center and the Jules Stein Eye Institute gathered at the Institute for the Cataract Surgery Special Focus: Multifocal Lens and Related Topics course on November 5, 2005. The program was organized by Kevin M. Miller, MD, Professor of Ophthalmology, and George M. Rajacich, MD, Assistant Clinical Professor of Ophthalmology, and sponsorship was provided by Alcon, Inc., Advanced Medical Optics, Inc., and Bausch and Lomb.

Several members of the volunteer clinical faculty presented didactic instruction, and provided valuable hands-on instruction in the laboratory with the latest lenses and surgical equipment.

### Course faculty members included:

Steven Anderson, MD  
John D. Bartlett, MD  
Stephen S. Byslma, MD  
Peter Cornell, MD  
Donald E. Dickerson, MD  
Troy R. Elander, MD  
Kenneth J. Hoffer, MD  
Richard H. Hoft, MD  
Ralph D. Levinson, MD  
Jonathan I. Macy, MD  
Samuel Masket, MD  
Albert T. Milauskas, MD  
Kevin M. Miller, MD  
Alpa Patel, MD  
George M. Rajacich, MD  
Donald N. Serafano, MD  
James D. Shuler, MD  
David M. Shultz, MD  
Sadiqa Stelzner, MD

## UCLA Department of Ophthalmology Association

The UCLA Department of Ophthalmology Association hosted its annual reception at the American Academy of Ophthalmology meeting in Chicago, Illinois, on Sunday, October 16, 2005, at the W Lakeshore Hotel. Close to 150 JSEI faculty members, staff, and resident and fellow alumni from around the world gathered to renew acquaintances.



Left to right, Dr. Martin Friedlander is welcomed by JSEI Director, Dr. Bartly Mondino, and JSEI Founding Director, Dr. Bradley Straatsma.



Left to right, JSEI Alumni Drs. Jamie Weisz, Colin McCannel and Guy Jirawuthiworavong



Drs. John Hoffbauer and Laura Fox (right) and Dr. and Mrs. David Schultz enjoy reconnecting with old friends.



UCLA Department of Ophthalmology Association Treasurer and Secretary, Dr. Robert Goldberg (left) greets Drs. Cheryl Powell and Richard Casey.



Left to right, JSEI Faculty member and alumnus Dr. Arthur Rosenbaum, greets fellow alumni Drs. Michelle Britt and Richard Ou at the reception.

### ATTENTION JSEI ALUMNI—RESPONSE FORMS AND PHOTOS STILL NEEDED FOR DIRECTORY!

The UCLA Department of Ophthalmology Association is in the process of compiling an updated alumni directory. If you haven't already submitted your response form, please take a moment to complete it and forward it on with a head shot photograph of yourself. The new directory will be an excellent resource for keeping in touch with JSEI friends and colleagues. It is scheduled to be distributed in Spring 2006, so it is imperative that everyone responds as soon as possible.

Forms can be found online on the UCLA Department of Ophthalmology page at [www.jsei.org](http://www.jsei.org) or by requesting one via email at [alumni@jsei.ucla.edu](mailto:alumni@jsei.ucla.edu). We look forward to hearing from you

Yoash R. Enzer, MD, JSEI alumnus and member of the UCLA Department of Ophthalmology Association, delivered the Robert Axelrod Memorial Lecture at JSEI's Aesthetic Facial Surgery and Rejuvenation course held in Temecula, California, on July 31, 2005. (See the Aesthetic Facial Surgery and Rejuvenation course article on page 3.)

## JULES STEIN EYE INSTITUTE RANKED AMONG TOP OPHTHALMOLOGY PROGRAMS IN NEW SURVEY

The Jules Stein Eye Institute has been ranked among the top three ophthalmology programs overall in the country by the trade publication *Ophthalmology Times*. *Ophthalmology Times*'s annual Best Programs survey recognizes excellence in the teaching and development of residents, patient care, and the pursuit of new frontiers in ophthalmic medicine.

The publication's annual survey, published on October 1, 2005, ranked JSEI the nation's third best program overall. Ranking numbers one and two, respectively, were the Wilmer Eye Institute at Johns Hopkins University and the Bascom Palmer Eye Institute at the University of Miami. Rounding out the top 10 were the University of Iowa, the Wills Eye Hospital in Philadelphia, the Duke University Eye Center, the Massachusetts Eye and Ear Infirmary at Harvard University, the Doheny Eye Institute at the University of Southern California and the W.K. Kellogg Eye Center at the University of Michigan (tie), and Washington University in St. Louis.

The survey also ranked the best research, residency and clinical programs, in each of which JSEI rated high. The institute was ranked the third best research program, fifth best residency program, and sixth best clinical program. *Ophthalmology Times* bases its rankings on results from a poll of 174 ophthalmology department chairmen and residency directors.

## NEW FACULTY

The Jules Stein Eye Institute is pleased to announce the appointment of **Raymond S. Douglas, MD, PhD**, as Assistant Professor of Ophthalmology in the Orbital and Ophthalmic Plastic Surgery Division, effective October 1, 2005. Dr. Douglas received his doctor of medicine and philosophy degrees from the University of Pennsylvania in Philadelphia, and stayed on to complete his residency in ophthalmology at the university's school of medicine. After completing a fellowship in orbital and ophthalmic plastic surgery at Jules Stein Eye Institute, Dr. Douglas joined a private oculoplastics practice in Beverly Hills, conducted research at Harbor-UCLA Medical Center and supervised residents in the UCLA ophthalmology training program. As a full-time faculty member, Dr. Douglas divides his time between patient care for diseases and surgery of the eyelid and orbit, aesthetic reconstructive surgery, and research into thyroid eye (Graves') disease, for which he received the Mentored Clinical Scientist Development Award (K08) from the National Eye Institute. Join us in welcoming Dr. Douglas to the Institute's full-time faculty.



Dr. Raymond Douglas

## DR. ROBERT GOLDBERG RECEIVES EXCELLENCE IN MEDICINE AWARD

**Robert Alan Goldberg, MD**, Professor of Ophthalmology and Chief of the Orbital and Ophthalmic Plastic Surgery Division at the Jules Stein Eye Institute, received the prestigious Irwin M. Weinstein Excellence in Medicine Award from the Israel Cancer Research Fund, Los Angeles Chapter (ICRF/LA). The award was presented at the ICRF/LA's Black Tie Gala on November 12, 2005. The Excellence in Medicine Award is named after Dr. Irwin M. Weinstein, an ICRF founder, whose extraordinarily prolific career spanned clinical practice, academic medicine, civic and government service, and a lifetime of dedication to his community and Israel. Dr. Goldberg was honored for his many contributions to the fields of orbital and ophthalmic plastic surgery and, in particular, for his care of patients with orbital tumors.

Dick Thompson



Dr. Robert Goldberg

## STRAATSMA AWARD FOR EXCELLENCE IN RESIDENCY EDUCATION

**Anthony C. Arnold, MD**, Professor of Ophthalmology and Chief of the Neuro-Ophthalmology Division, received the Straatsma Award for Excellence in Residency Education at the American Academy of Ophthalmology (AAO) Annual Meeting on October 15–18, 2005, in Chicago. Dr. Arnold who directs the residency training program at the Jules Stein Eye Institute, presented the Straatsma Lecture entitled, "U.S. Ophthalmology Residency Training 2005: An Assessment." The Award, named after **Bradley R. Straatsma, MD, JD**, Emeritus Professor of Ophthalmology and Founding Director of the Jules Stein Eye Institute, was established through the American Academy of Ophthalmology and the Association of University Professors of Ophthalmology to recognize a resident program director dedicated to the principles and significance of residency education. At the same meeting, Dr. Arnold also received the AAO Secretariat Award for special contribution as editor of the "Basic Principles of Ophthalmic Surgery" manual for ophthalmology residents.



Dr. Anthony Arnold

## FACULTY HONORS

On September 16, 2005, **Dean Bok, PhD**, Dolly Green Professor of Ophthalmology, delivered the Craig Lecture at Queen's University in Belfast, Ireland. The title of the lecture was "Gene and Small Molecule Therapy for Animal Models of Human Inherited Retinal Degeneration." Dr. Bok also presented the Alcon Laboratories Lecture, "Current Insights into the Pathobiology of Age-related Macular Degeneration," at the Third Annual Symposium on Frontiers in Vision Science, University of Illinois, Chicago, on November 4, 2005.

**Joseph L. Demer MD, PhD**, was Guest of Honor at the New England Ophthalmological Society in Boston, Massachusetts, on September 30, 2005, where he received a Revere Bowl and spoke on the topic of orbital pulleys. He also presented the Robb-Petersen Lecture at Harvard University in Boston, Massachusetts, on October 1, 2005. The title of the lecture was "Imaging of Extraocular Muscles and Nerves in Congenital Cranial Dysinnervation Disorders."

L'Association Dégénérescence Maculaire Liée à l'Age gave the honorary title of "Marraine 2005" to **Debora B. Farber, PhD, DPhhc**, Karl Kirchgessner Professor of Ophthalmology, at l'Hopital Intercommunal de Creteil in France, on September 29, 2005. Dr. Farber also received The Visionary Award from The Vision of Children Foundation at the Fifth World Symposium on Ocular Albinism in Capri, Italy, on October 5, 2005, for her outstanding commitment and dedication to vision research.

### CENTER TO PREVENT CHILDHOOD BLINDNESS

The Center to Prevent Childhood Blindness has been established at the Jules Stein Eye Institute to increase awareness about blinding diseases in children and to help eradicate blindness. A child goes blind every minute of the day. Currently, 1.5 million infants and children worldwide are blind, and yet relatively little funding is available for research to prevent vision-threatening diseases in this age group.



Drs. Sherwin Isenberg (right) and Leonard Apt with a young patient

In collaboration with UCLA faculty, **Sherwin J. Isenberg, MD**, Professor of Pediatrics and Vice-Chairman of the Department of Ophthalmology, who also serves as the Chief of the Ophthalmology Division at Harbor-UCLA Medical Center in Torrance, is spearheading the Center to Prevent Childhood Blindness. Dr. Isenberg shares his commitment to children's eye diseases with **Leonard Apt, MD**, Professor Emeritus, Founder of the Division of Pediatric Ophthalmology, and Co-Director of the Center.

Over the last 20 years, Dr. Isenberg and Dr. Apt have made dramatic progress in reducing blindness, most notably through the use of povidone-iodine solution, a medication that was pioneered at JSEI. Povidone-iodine now prevents 2,000 cases of post-operative blindness in the United States and 5,000 to 10,000 cases of blindness in newborns in Africa and Asia, annually. More can be done through the Center to drastically decrease the number of infections leading to blindness every year. Another area of investigation that will be supported by the Center is a noninvasive method of measuring blood gases from the surface of the eye, which may be critical in preventing retinopathy of prematurity, a leading cause of blindness in premature newborns.

The establishment of the Center to Prevent Childhood Blindness is critical to furthering the goal of combating blindness in children and infants. The main objectives of the Center include facilitating research collaboration among physicians, as well as providing consultations for blind and visually-impaired children and exploring treatment options through clinical studies, laboratory testing, and research. Private support will enable Center physicians and basic scientists to foster a lifetime of good vision for boys and girls worldwide.

photographer Matt Shonfeld



**"Most people looking at this child think he has beautiful big eyes. However, he has glaucoma, which without treatment will lead to blindness," says Dr. Sherwin Isenberg.**

For more information on the Center to Prevent Childhood Blindness, contact **Melania Vartanian**, Associate Director of Development, at JSEI, at 310.206.6035.

### LEONARD APT CHAIR IN PEDIATRIC OPHTHALMOLOGY

**Joseph L. Demer, MD, PhD**, an active clinician-scientist, Chief of the Comprehensive Ophthalmology Division at the Jules Stein Eye Institute (JSEI), and Professor of Ophthalmology and Neurology at UCLA, has been appointed to the Leonard Apt Chair in Pediatric Ophthalmology.

Dr. Demer, a graduate of Johns Hopkins University, was appointed to the UCLA faculty in the Departments of Ophthalmology and Neurology in 1988. His studies clarify the role of the brain and extraocular muscles in control of eye movements and visual perception. He directs a National Eye Institute-funded research project that has led to the development of new methods of magnetic resonance imaging of the eye muscles and their nerve connections. These methods are revolutionizing the field of ocular motility by enabling researchers to observe the muscles in action and the nerves that connect to them, as well as the newly discovered connective tissue pulleys of the eye muscles. Dr. Demer has determined that pulley disease is a common cause of strabismus (crossed eyes), and can be treated surgically. He also investigates genetic causes of strabismus, and has co-authored articles in major genetic journals. Advances in the understanding of the genetics of strabismus will dramatically impact its diagnosis and lead to improved treatments in the next few years.



Drs. Joseph Demer (right) and Leonard Apt

In 2003, Dr. Demer received the Friedenwald Award, the highest honor given by the Association for Research in Vision and Ophthalmology, for his work on eye muscles. He is the recipient of numerous research grants, including awards from the National Institutes of Health to address problems in ophthalmology and neurology. Last year, Alcon Research, Ltd., honored Dr. Demer with a substantial monetary award in recognition of his discoveries concerning eye muscles. Recently, he received a major grant from Research to Prevent Blindness for the study of amblyopia, the most common cause of monocular visual loss in younger people.

In addition to his clinical and research responsibilities, Dr. Demer also organized and directs UCLA's unique EyeSTAR (Specialty Training and Advanced Research) Program, designed to train the next generation of physician-scientists in academic ophthalmology.

**Leonard Apt, MD**, Professor Emeritus of Ophthalmology and Founding Director of the Division of Pediatric Ophthalmology and Strabismus at JSEI, established the Leonard Apt Chair in Pediatric Ophthalmology in 2004 through a \$1-million gift drawn from the trust of Frederic G. Rappaport, Dr. Apt's nephew. Dr. Apt was the first physician to be board certified in both pediatrics and ophthalmology, and he founded academic pediatric ophthalmology in the United States through the establishment of the first full-time division at a medical school (UCLA). The Apt Chair will complement the Leonard Apt Fellowship in Pediatric Ophthalmology, thus advancing the efforts at JSEI to preserve and restore the vision of infants and children. Dr. Apt is the first active faculty member to endow both a fellowship and a chair at UCLA.

If you would like to make a contribution to the Institute, you may do so by means of the remittance envelope included in this issue of EYE. For additional information, please call or write to the following:

Development Office  
Jules Stein Eye Institute  
100 Stein Plaza, UCLA  
Box 957000  
Los Angeles, California  
90095-7000  
(310) 206-6035  
giving@jsei.ucla.edu

## INTERNATIONAL RESEARCH COLLABORATION

International collaboration in ophthalmology is emerging as an important vehicle for sharing of expertise and accelerating the pace of research. The benefits of international collaboration are many. Cross-border studies facilitate advancements in ophthalmology by increasing the potential pool of participants and enabling comparisons of patient groups and interventions not possible in one country alone. They are valuable for identifying risk factors, testing hypotheses generated in one locality at other sites, and developing and testing appropriate, cost-effective technologies. They also make modern research tools available to institutions in countries that would not normally be able to provide them from their own resources, and provide an opportunity for scientists, here and over seas, to broaden their horizons by becoming exposed to different ways of approaching problems and devising solutions.

International collaboration at the Jules Stein Eye Institute occurs in many different forms, ranging from casual interaction between two scientists on a small limited project, to more extensive formal arrangements involving many institutions and covering large research programs. A sampling of collaborations currently underway is listed below.

### Birdshot Chorioretinopathy

*Ralph D. Levinson, MD, and Gary N. Holland, MD, Jules Stein Eye Institute, David Geffen School of Medicine at UCLA, Los Angeles, California; Antoine Brezin, MD, PhD, and Dominique Monnet, MD, the Service d'Ophtalmologie, Hôpital Cochin, Paris, France; Aniki Rothova, MD, PhD, E. C. Donders Institute of Ophthalmology, University Medical Center of Utrecht, Utrecht, the Netherlands; Massimo Accoriniti, MD, Dipartimento di Scienze Oftalmologiche, Università "La Sapienza," Rome, Italy*

Ophthalmologists from the UCLA Ocular Inflammatory Disease Center are engaged in a series of collaborations with ophthalmologists from France, the Netherlands and Italy, to study the clinical and immunogenetic aspects of a chronic ocular inflammatory disease, birdshot chorioretinopathy. The investigators initiated the collaboration by developing standardized diagnostic criteria to facilitate clinical research and the comparison of study results. Jules Stein Eye Institute (JSEI) and Hôpital Cochin tested the validity of the criteria by applying them to cases previously diagnosed with the disease and to new consecutive cases of intraocular inflammation. The two institutions are collaborating on a longitudinal study of 80 patients with birdshot chorioretinopathy in Paris, and have established a database at JSEI to facilitate long-term follow-up of patients here and in France. The study, which focuses on the inter-relationship of disease factors, as well as the course of disease and response to treatment, was awarded the first place prize for research, Le Prix Paul Chauvin, at the 2005 French Academy of Ophthalmology. Another collaboration is underway to investigate of the disease's genetic components. Data analysis for these studies is performed by the JSEI Clinical Research Center.

### Photodynamic Therapy for the Treatment of Idiopathic Juxtafoveal Telangiectasis Complicated by Subretinal Neovascularization

*David Sarraf, MD, Jules Stein Eye Institute, David Geffen School of Medicine at UCLA, California; Michael Potter, MD, University of British Columbia, Vancouver, Canada; Ursula Schmidt, MD, Universitaetsklinik für Augenheilkunde und Optometrie, Vienna, Austria*

Idiopathic juxtafoveal telangiectasis (IJT) with subretinal neovascularization is a relatively uncommon vascular disorder, causing disturbance of central vision in adults. It is characterized by the proliferation of abnormal leaking capillaries confined to an area around the fovea—the center of the macula that contains a high concentration of cones and produces sharpest vision. Since conventional laser treatment has been relatively ineffective in arresting this condition, IJT has a very poor visual prognosis often associated with central visual blindness. Ophthalmologists at Jules Stein Eye Institute and abroad have joined together to undertake a retrospective chart review of nine eyes from patients with IJT who have been treated with photodynamic therapy, a novel dye-enhanced laser system that can selectively target the abnormal vessels without damaging the fovea. The study will determine if this relatively new laser treatment represents a more effective management option for this potentially devastating condition.

### Clinical Measurements of the Optic Nerve in Glaucoma

*Joseph Caprioli, MD, Jules Stein Eye Institute, David Geffen School of Medicine at UCLA, California; Thierry Zeyen, MD, University Hospitals of Leuven, Belgium*

Ophthalmologists at Jules Stein Eye Institute and University Hospitals of Leuven, Belgium, are engaged in a longitudinal study to develop new structural measurements of the optic nerve and the nerve fiber layer in glaucoma. Accurate assessment of the optic nerve and the nerve fiber layer is important to the early detection and timely treatment of glaucoma. The facilities are pooling data from patients, with and without glaucoma, who have been tested over time using the Heidelberg Retinal Tomography (HRT)—a confocal laser-scanning microscope that uses multiple tomographic images to measure the optic nerve head—and standard tests such as visual field measurement and ophthalmic photographs of the optic nerve. By analyzing the data, the researchers hope to develop novel structural measurements that are sensitive and specific for early and progressive glaucomatous optic nerve damage. This should lead to a greater understanding of the nature of the disease by clinicians and earlier and more accurate intervention for patients.

### Thessaloniki Eye Study

*Fotis Topouzis, MD, Aristotle University of Thessaloniki, Thessaloniki, Greece; Anne L. Coleman, MD, PhD, Jules Stein Eye Institute, David Geffen School of Medicine at UCLA, California; Alon Harris, PhD, Indiana University School of Medicine, Indianapolis, Indiana; M. Roy Wilson, MD, MPH, Texas Tech University, Lubbock, Texas*

The Thessaloniki Eye Study (TES) is a population-based epidemiologic study of glaucoma and age-related macular degeneration (AMD) in the Greek population. The study will determine the prevalence of these diseases in Greece, detect their previously unidentified risk factors, and evaluate optic disc topography and retinal blood flow in participants with and without glaucoma or AMD. This data is important for estimating the need for services and associated costs in terms of visual loss, quality of life and public health care. Since Greece is expected to have a high rate of pseudoexfoliation and pseudoexfoliative glaucoma, the present study will be particularly useful for providing insight into the epidemiology of pseudoexfoliative glaucoma. The Thessaloniki Eye Study is the first large population-based epidemiologic study of eye diseases in Greece. The Center of Eye Epidemiology, Jules Stein Eye Institute, is the coordinating center and the fundus photography and visual field and diagnostic imaging reading center for the study. The two additional centers—Texas Tech University Health Sciences Center and Glaucoma Research and Diagnostic Center at Indiana University School of Medicine—are contributing expertise in epidemiology and blood flow analyses, respectively.



# Special Events & Activities

## JSEI AFFILIATES HOSTS HOLIDAY VOLUNTEER RECOGNITION LUNCHEON

**M**arti Oppenheimer and Cherie Hubbell, Co-Chairs of the JSEI Affiliates, hosted a festive holiday luncheon on Monday, December 5, 2005, at the Hotel Bel-Air in honor of JSEI Affiliates Advisory Board members, volunteers and special guests.

“The strength of the JSEI Affiliates programs depends on our dedicated volunteers whom we recognize at this special annual recognition event,” Mrs. Hubbell remarked. “The Affiliates accomplished new levels this year in each of our community outreach programs, results that would not have been possible without the commitment of our advisory board and dedication of our volunteers.”

Educating children about one of their most precious assets—their eyes—the Affiliates offer the *Vision In-School* program and *Preschool Vision Screenings* free of charge to elementary schools and preschools in the community. The Affiliates also support several patient programs including the *Make Surgery Bearable* and *Shared Vision* programs.

Since its inception, *Make Surgery Bearable* has provided thousands of Dr. Teddy MD teddy bears to pediatric surgery patients at JSEI, while *Shared Vision* has collected over 10,000 pairs of donated eyeglasses to be refurbished and distributed to adults and children who could not otherwise afford them.

*If you would like more information about joining or volunteering with the Jules Stein Eye Institute Affiliates, please contact the Jules and Doris Stein UCLA Support Group at 310.825.4148.*



The Affiliates “Make Surgery Bearable Team” posing with Dr. Teddy MD



Nancy Graydon (left), JSEI Director of Development, and Gloria Kaufman, JSEI Affiliates Honorary Board Member and longtime JSEI supporter



JSEI Trustee Gerald Oppenheimer and Gail Oppenheimer (left) are greeted by JSEI Affiliates Board Member Ruth Straatsma.



Cherie Hubbell (left), JSEI Affiliates Co-Chair, and Dr. Melissa Chun, JSEI Vision Rehabilitation Center Director



JSEI Affiliates Board Members Jill B. Stuart (left) and Maude Feil

### IMPORTANT JSEI PHONE NUMBERS

#### PATIENT CARE

JSEI Ophthalmology Referral Service	(310) 825-5000
JSEI Ophthalmology Emergency Service	(310) 825-3090
after hours	(310) 825-2111
JSEI Specialty Areas:	
Aesthetic Eye and Facial Surgery	(310) 794-9341
Contact Lens Service	(310) 206-6351
Cornea-External Ocular Disease & Uveitis	(310) 206-7202
Glaucoma	(310) 794-9442
Neuro-Ophthalmology	(310) 825-4344
Pediatric Ophthalmology and Strabismus	(310) 825-5000
Refractive Surgery (Custom LASIK, Custom NearVision CK)	(310) 825-2737
Retina	(310) 825-5000

#### FUND RAISING AND OUTREACH

JSEI Development Office	(310) 206-6035
JSEI Affiliates	(310) 825-4148

EYE

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Forwarding Service Requested

