

EYE

J U L E S S T E I N E Y E I N S T I T U T E

Gateway to Vision

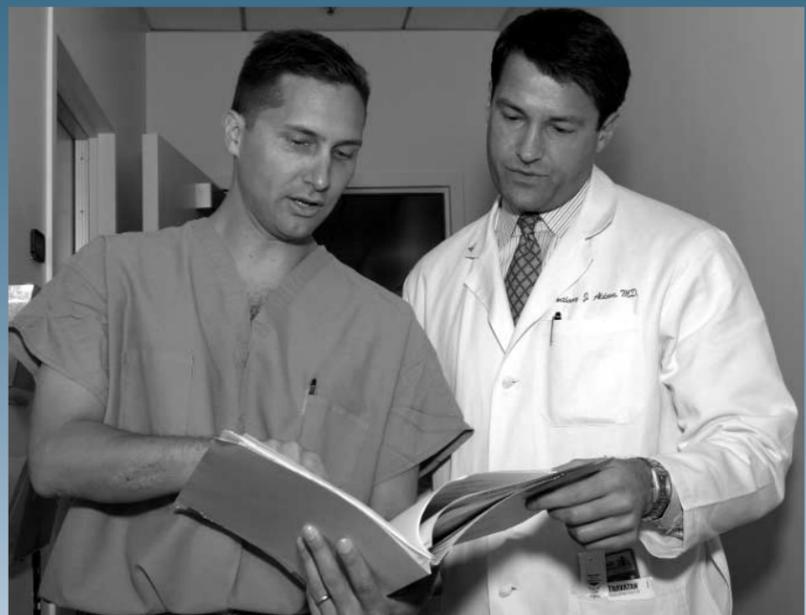
The cornea is the clear, front surface of the eye that acts as a window and refracts, or bends, the incoming light. If the cornea is not functioning properly, severe vision loss can occur. Faculty in the Institute's Cornea–External Ocular Disease & Uveitis Division manage diseases affecting this critical gateway. They also manage problems of the external structures of the eye, including the eyelids and conjunctiva—the membrane that lines the inner surface of the eyelid and covers the sclera, or white of the eye. In some cases, diseases of the cornea and external ocular area can involve other parts of the body, and rarely, can be life-threatening. Many of these problems are inter-related, requiring coordinated, customized care that may depend on evolving technologies, such as laser surgery. Division faculty are uniquely qualified to deliver this state-of-the-art medical care.

Many corneal and external ocular problems are inter-related, requiring coordinated, customized care that may depend on evolving technologies, such as laser surgery.

Refractive Disorders

The Institute's contact lens and laser refractive centers accommodate patients with basic optical needs, as well as complex ophthalmic diagnoses. Founded in 1991, the Institute's Laser Refractive Center is one of a few programs in the United States to pioneer investigations into laser eye surgery. **D. Rex Hamilton, MD**, Assistant Professor of Ophthalmology, has recently arrived at JSEI and is the new director of the Laser Refractive Center. (See *Institute News* for more information). Dr. Hamilton has a background in refractive, as well as intraocular and corneal surgery, including new laser applications. An example is wavefront technology, an enhancement for all types of laser procedures—LASIK, LASEK, and PRK—that affords a high level of optimized correction. With the emergence of a new generation of intraocular lenses, Dr. Hamilton is moving refractive surgery inside the eye. He has received special training to surgically implant a new intraocular lens geared to patients with high degrees of nearsightedness who typically are not candidates for laser surgery. He also implants intra-corneal inserts for patients with keratoconus (a degenerative disease of the cornea) who cannot tolerate contact lenses. **Anthony J. Aldave, MD**, Assistant Professor of Ophthalmology, also performs laser refractive procedures at the center.

Under the direction of **Barry A. Weissman, OD, PhD**, Professor of Ophthalmology, the Contact Lens Center fits patients who prefer contact lenses to eyeglasses or have eye diseases that are optically or therapeutically assisted by contact lenses. Center faculty also fit patients who have had corneal transplants, patients who are suffering from corneal trauma or infection, patients who require contact lenses following cataract surgery, and babies following treatment for retinopathy of prematurity. The center is part of a landmark, multicenter clinical study of keratoconus, sponsored by the National Eye Institute.



Drs. Rex Hamilton (left) and Anthony Aldave treat patients in the Laser Refractive Center.



Infectious and Inflammatory Eye Diseases

From a simple case of allergic conjunctivitis to a severe, blinding disease that can “melt” the cornea, division faculty treat infectious and inflammatory diseases of the cornea, sclera and conjunctiva. Localized infections can be a result of improper contact lens care and usually respond to aggressive treatment with topical antibiotics. However, progressive corneal ulcers can result, ultimately requiring corneal transplantation. Ocular pemphigoid is a less common condition that causes progressive scarring of the mucous

membrane of the eye, resulting in severe dryness and opacification of the cornea. For patients with rheumatoid arthritis, an associated eye condition called necrotizing scleritis can destroy the eye wall, leading to blindness. Managing this eye disease can be difficult, requiring collaboration with rheumatologists, as patients with eye involvement can have increased risk of life-threatening complications from their arthritis.

Two division faculty members have earned national recognition for research and treatment of infectious and inflammatory eye diseases. **Bartly J. Mondino, MD**, Bradley R. Straatsma Professor of Ophthalmology and Director of the Jules Stein Eye Institute, is an acknowledged expert on ocular autoimmune diseases. **Gary N. Holland, MD**, David May II Professor of Ophthalmology and Chief of the Cornea-External

Ocular Disease & Uveitis Division, is an authority on infections of the eye.



Dr. Gary Holland performs a corneal transplant.

Corneal Transplants

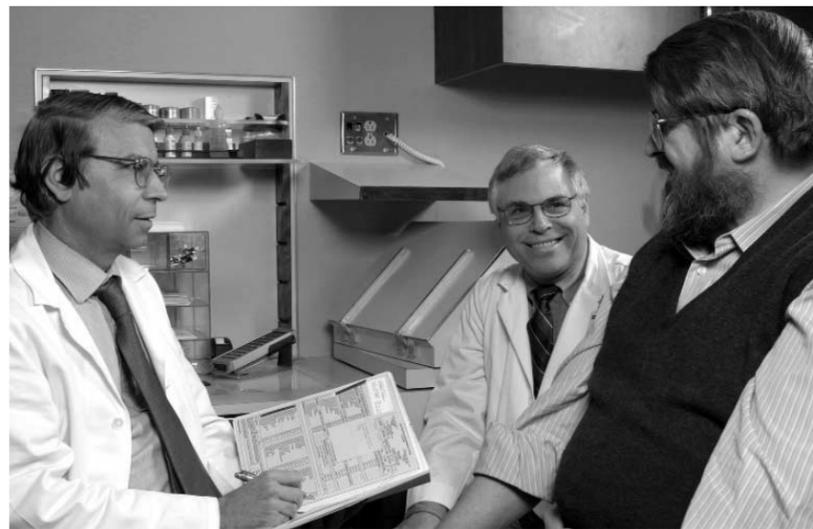
The cornea is made up of collagen, arranged in orderly layers, allowing light to pass through without being reflected. Inflammation, infection or trauma can opacify the cornea, causing permanent vision loss. Regeneration is not possible once damage has occurred, and the only way to get a clear cornea again is through transplantation. Other problems that may require corneal transplantation include corneal damage during cataract surgery; misshapen corneas due to degenerative eye diseases, like keratoconus; and corneal dystrophies (see below). As the cornea is normally devoid of blood vessels, the rejection rate for corneal transplants is less than for other transplanted tissues, making the procedure very successful in most cases. Corneal transplants are performed by all ophthalmologists in the division. Dr. Aldave directs the Institute's Donor Eye Program, which was established to inform the public of the need for eye tissues and to retrieve donated eyes (including corneas) in accordance with the Uniform Anatomical Gift Act.

Dr. Aldave was the first surgeon in the United States to successfully complete both stages involved in the implantation of the AlphaCor artificial cornea, which was recently approved by the Federal Drug Administration for patients with certain diseases that make them poor candidates for transplantation of human corneas.

Corneal Degenerations and Dystrophies

Corneal *degenerations* are varied disorders typically associated with progressive thinning or opacification of the cornea. These conditions can result in visual impairment, and thinning may progress to corneal perforation. In patients with keratoconus, the normally round cornea progressively thins and bulges, causing a cone-like deformation. Substantial vision impairment may develop. Contact lenses will help in moderate cases, but corneal transplantation may be required in severe cases. While corneal degenerations appear to have a genetic component, the cause of these eye disorders has not yet been determined.

Dr. Aldave conducts a clinical practice and research program that focuses on corneal *dystrophies*, a group of inherited disorders typically characterized by the development of corneal deposits that interfere with vision and produce painful erosions. For some dys-



Dr. Bartly Mondino (left) and Barry Weissman (center) consult with a patient.

trophies in which the deposits are located in the superficial layers of the cornea, debridement (scraping the surface of the cornea with a scalpel), a partial thickness corneal transplant, or phototherapeutic keratectomy (using the excimer laser) may remove the corneal deposits. The vast majority of dystrophies are inherited in an autosomal dominant fashion, which means that a person with the disease, on average, will pass it on to half of his or her children. In some dystrophies—Meesmann's, lattice, granular, and macular corneal dystrophies—the genes involved have been identified and the diagnosis may be confirmed by testing the patient's DNA. In the case of posterior polymorphous corneal dystrophy (PPCD), the responsible gene has not yet been identified. Dr. Aldave is currently conducting laboratory research on this disease. Because the gene that is defective in PPCD appears to play a role in corneal swelling, findings from this research may have implications for a larger group of patients, particularly those who experience corneal swelling following cataract surgery.

Tumors

Although rare, cancerous tumors can develop on the surface of the eye. They include conjunctival melanoma, a life-threatening form, and squamous cell carcinoma. Visible white or brown spots on the surface of the eye are the first signs of disease. Treatment usually involves excision, if the lesion is small enough. Other therapies used in conjunction with surgery include cryotherapy, where the tumor is frozen, and topical chemotherapy. Tumors must be treated meticulously to ensure that no cancer cells are left behind that can spread to other parts of the body. Drs. Aldave, Holland and Mondino all manage patients with both cancerous and pre-cancerous tumors.

Uveitis

This group of disorders is characterized by inflammation inside the eye. Uveitis is often treated with the same drugs and therapies that are used to fight inflammatory diseases of the cornea. The care of patients with uveitis and corneal problems occurs in the Cornea-External Ocular Disease & Uveitis Division. Dr. Holland divides his patient care activities equally between corneal diseases and uveitis. Among the disorders he treats are uveitis in children with juvenile rheumatoid arthritis; ocular toxoplasmosis, a parasitic infection of the retina; and CMV retinitis, the most common infection of the eye associated with AIDS.

EYE

NEWSLETTER
IS A PUBLICATION
OF THE
JULES STEIN EYE INSTITUTE

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NEWLY ORGANIZED CLINICAL AND RESEARCH SEMINAR

The annual JSEI Research and Alumni Day, Post ARVO Seminar, and Postgraduate Seminar and Jules Stein Lecture are now combined. The newly organized event, the **Jules Stein Eye Institute Clinical and Research Seminar**, provides an educational opportunity for ophthalmologists and vision scientists, as well as research and training opportunities for residents and fellows. This year's seminar, to be held at the Jules Stein Eye Institute on **May 21–22, 2004**, will feature the Thirty-fifth Jules Stein Lecture, the Second Thomas H. Pettit Lecture, and the Second Bradley R. Straatsma Lecture.

■ Jules Stein Lecturer

Robert N. Weinreb, MD, Shiley Eye Center at the University of California, San Diego

■ Thomas H. Pettit Lecturer

James P. Dunn, Jr., MD, Wilmer Eye Institute at Johns Hopkins School of Medicine

■ Bradley R. Straatsma Lecturer

Paul S. Bernstein, MD, PhD, Moran Eye Center at the University of Utah

6TH ANNUAL JSEI/SCCO JOINT OPTOMETRIC SYMPOSIUM: GLAUCOMA

Optometrists from across California participated in the 6th Annual Jules Stein Eye Institute and Southern California College of Optometry Joint Optometric Symposium. This year's course, featuring glaucoma, was held in the RPB Auditorium on January 11, 2004. The course was organized by **Joseph Caprioli, MD**, Frances and Ray Stark Professor of Ophthalmology and Chief of the Glaucoma Division; and **Barry A. Weissman, OD, PhD**, Professor of Ophthalmology and Director of the Contact Lens Center. Included were lectures on evaluating and diagnosing glaucoma, as well as medical and surgical treatments for this sight-threatening disease.

PHACOEMULSIFICATION COURSE FOR RESIDENTS

Residents at the Jules Stein Eye Institute were brought together on October 18, 2003, for ophthalmic instruction on phacoemulsification. The course was organized by **Kevin M. Miller, MD**, Associate Professor of Ophthalmology, and **George M. Rajacich, MD**, Assistant Clinical Professor of Ophthalmology, and was held in the Institute's microsurgery laboratory. Several members of the volunteer faculty turned out to present didactic instruction and provide valuable hands-on experience in the laboratory, using the latest lenses and surgical equipment.

ANNUAL MEETING OF THE AMERICAN CHINESE MEDICAL ASSOCIATION

On November 9, 2003, the Jules Stein Eye Institute was the site of the annual meeting of the American Chinese Medical Association. JSEI EyeSTAR trainee **Stephen H. Tsang, MD, PhD**, President of the Southern California Chapter, organized the meeting to provide practical strategies for academic career advancement. The morning program, "Pathway to the Professorate," focused on enlightening and demystifying the process of becoming a clinician-scientist and provided valuable insights into achieving success. The afternoon program addressed health issues unique to the Asian American community. The event also provided students, residents, and fellows a unique opportunity to develop relationships with peers and clinician-scientists.



Dr. Stephen Tsang

VISION SCIENCE CONFERENCE

Sponsored by the National Eye Institute Vision Science Training Grant under the auspices of the Jules Stein Eye Institute, the Ninth Annual Vision Science Conference took place September 19–21, 2003, at Lake Arrowhead, California. It proved to be highly successful, with over 50 participants in attendance from both the basic and clinical sciences.

As is tradition, the conference began on Friday evening with an ethics seminar, which dealt with a wide range of topics. Conference attendees were divided into debate teams and instructed to take positions on topics ranging from mentoring relationships to the controversy over human genetics research. A panel of judges, consisting of faculty and trainees, closed each debate by choosing the team that they believed had the strongest argument.



Postdoctoral fellow **Ming Hao Gin, PhD**, responds to questions about his poster presentation.

Basic scientists and clinical researchers offered diversity in their poster presentations and talks throughout the weekend. Open discussion followed each presentation and trainees were given opportunities to answer questions and receive feedback.

Invited guest speaker, **Chyren Hunter, PhD**, from the National Institutes of Health (NIH), closed the conference with a presentation describing the mission of the NIH and the various funding opportunities that are available to vision science researchers. The presentation was especially valuable to trainees and new investigators pursuing research grants.

The planning committee for this year's conference included Committee Chair Merhnoosh Saghizadeh; Evan Hseih; Guy V. Jirawuthiworavong, MD; Eiko Kitamura, PhD; Robin L. Seitzman; John R. Sinclair, MD; Ned Van Eps, PhD; Arthi Vijayaraghavan; and **Deborah B. Farber, PhD**, director of the Vision Science Training Grant and faculty and committee advisor.



Over 50 basic and clinical scientists attended the Ninth Annual Vision Science Conference at Lake Arrowhead, California.

DR. GARY HOLLAND GIVES THE PRESTIGIOUS JACKSON MEMORIAL LECTURE

Gary N. Holland, MD, David May II Professor of Ophthalmology and Chief of the Cornea–External Ocular Disease & Uveitis Division, was chosen to present the prestigious Edward Jackson Memorial Lecture at the opening ceremonies of the annual meeting of the American Academy of Ophthalmology (AAO), in Anaheim, California, on November 16, 2003. The Jackson Memorial Lecture is considered to be one of the highest honors in ophthalmology. The lecturer is nominated each year by the Editorial Board of the *American Journal of Ophthalmology*. He or she is generally a physician in mid-career who has made substantial contributions to the field of ophthalmology and is recognized by peers.

Dr. Holland, who is also Director of the Institute's Ocular Inflammation Disease Center, is an authority on ocular infections. He chose toxoplasmosis, an infectious disease caused by a common parasite, as the subject of his lecture. Toxoplasmosis occurs throughout the world. It is the most common cause of retinal infections in the general population, and it can lead to severe vision loss. The lecture, "Ocular Toxoplasmosis: A Global Reassessment," marked the 50th anniversary of the initial description of toxoplasmosis as a cause of eye disease in adults, and dealt with new discoveries about the disease that may have important implications for its prevention and treatment. Dr. Holland argued that many of the concepts about ocular toxoplasmosis that have evolved over the past half-century need revision as a result of new discoveries. Much of the new information about toxoplasmosis has come from recent studies in other countries where the disease has a particularly high prevalence, including Brazil, France, and the Netherlands. Dr. Holland has on-going research collaborations with investigators in each of those countries, and he paid tribute to the contributions of these colleagues from around the world. In addition to the presentation of new information, he commented that research into ocular toxoplasmosis serves as "a model for the application of new research tools to the study of old problems."

The annual lecture honors **Edward Jackson, MD**, (1856–1942) a dominant force in shaping modern ophthalmology. Among his scientific contributions, Jackson developed techniques of refraction that are still in use today by clinicians who prescribe eyeglasses. He helped to establish many of ophthalmology's professional organizations; he was the first President of the AAO and the first Chairman of the American Board of Ophthalmology, which certifies ophthalmologists after training. Jackson was also the first Editor-in-Chief of the *American Journal of Ophthalmology*, and was committed to furthering medical education.



Dr. Gary Holland (third from the left) is joined by several research collaborators: (left to right) Drs. Rubens Belfort, Jr., and Cristina Muccioli, both from Brazil; Dr. Holland; Dr. Aniki Rothova from the Netherlands; Dr. G. Richard O'Connor of the University of California, San Francisco; and Dr. Jeffrey Jones, of the United States Centers for Disease Control. Dr. Holland began his research on toxoplasmosis during his fellowship training under Dr. O'Connor's supervision.

NEW FACULTY

The Jules Stein Eye Institute is pleased to announce two new full-time faculty members. **D. Rex Hamilton, MD**, was appointed Assistant Professor of Ophthalmology in the Cornea–External Ocular Disease & Uveitis Division, effective September 1, 2003. Dr. Hamilton received his medical degree from the University of California, Irvine, and completed his residency in ophthalmology at the Jules Stein Eye Institute. After a fellowship in cornea and refractive surgery at Minnesota Eye Consultants, P.A., he was recruited to the position of director for the Institute's Laser Refractive Center. He also holds a master's degree in biomedical engineering from the University of Virginia. Dr. Hamilton's current research interests include new applications of wavefront technology in refractive surgery, and emerging therapies that utilize intraocular lenses.



Dr. Rex Hamilton

Hui Sun, PhD, has a joint appointment as Assistant Professor of Ophthalmology and Physiology, effective September 1, 2003. He studied biochemistry as an undergraduate at Nankai University, China, and pursued graduate studies in the same field at the University of Miami and at Johns Hopkins University, where he earned a doctorate in molecular biology and genetics. He subsequently completed a fellowship at Johns Hopkins University and accepted an appointment as Research Associate at the Howard Hughes Medical Institute in 1999. Dr. Sun will collaborate with JSEI faculty in the Vision Science Division. His research interest is in the biogenesis of photoreceptor cells and the control of photoreceptor function using light and the biological clock.



Dr. Hui Sun

AWARDS AND HONORS

Anne L. Coleman, MD, PhD, Associate Professor of Ophthalmology, received the Secretariat Award from the American Academy of Ophthalmology for her strong leadership during her 1998–2002 term as Chair of the Interspecialty Education Committee.

The Cosmetic Surgery Foundation chose JSEI clinical fellow **Raymond S. Douglas, MD, PhD**, as the winner of the 2004 Richard C. Webster, MD, Resident Paper Contest. The paper, "Adjunctive Techniques for Prevention of Lower Eyelid Retraction," was chosen for its methodology, original research, and focus on patient safety. Dr. Douglas presented the paper at the annual meeting of the American Academy of Cosmetic Surgery in January 2004.

A Special Recognition Award went to **Debora B. Farber, PhD, DPhhc**, Karl Kirchgessner Professor of Ophthalmology and Co-Chief of the Vision Science Division, from the Association for Research in Vision and Ophthalmology (ARVO) for her service to that internationally renowned organization.

At the annual meeting of the American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS), held November 14–15, 2003, **Robert Alan Goldberg, MD**, Professor of Ophthalmology and Chief of the Orbital and Ophthalmic Plastic Surgery Division, gave the Fourth Henry Baylis Lecture, which is a tribute to the JSEI aesthetics program and to the contributions it has made to aesthetic and reconstructive orbitofacial surgery. Dr. Goldberg has been elected to the executive board of the ASOPRS.

Sherwin J. Isenberg, MD, Grace and Walter Lantz Professor of Pediatric Ophthalmology and Vice Chairman of the Department of Ophthalmology, received the 2003 David Friendly Memorial Award from the Costenbader Society, which is the oldest pediatric ophthalmology society in the world. Each year, it selects someone who has made major contributions to ophthalmology, children, and society.

A journal article co-authored by **Sherwin J. Isenberg, MD**, and **Leonard Apt, MD**, Professor Emeritus of Ophthalmology, was featured as one of the best papers of 2002 at the 2003 Annual Meeting of the American Academy of Ophthalmology. The article, titled "A Controlled Trial of Povidone-Iodine to Treat Infectious Conjunctivitis in Children," was published in the *American Journal of Ophthalmology*.

NEW EYE RESEARCH GRANTS

Anthony J. Aldave, MD, Assistant Professor of Ophthalmology, is one of a handful of investigators in the United States who were invited to participate in a clinical research study sponsored by the Food and Drug Administration (FDA). The purpose of the study is to evaluate the safety and effectiveness of an experimental device called the Phakic 6™ H2 Heparinized Refractive Intraocular Lens in the treatment of severe myopia (nearsightedness). For patients with high levels of myopia, suitable vision correction through glasses, contact lenses or refractive surgery is difficult to achieve. This intraocular lens will be implanted behind the cornea in a method similar to standard cataract surgery as a way to increase vision acuity to a normal or near-normal level. Patients in the study will be followed for three years.

Major grants from the National Eye Institute were awarded to two faculty members in the Vision Science Division. The grant to **Debora B. Farber, PhD**, Karl Kirchgessner Professor of Ophthalmology and Co-Chief of the Vision Science Division, will further her molecular research studies into ocular albinism. Her laboratory is seeking a detailed understanding of how the genetic mutation that alters ocular pigmentation causes abnormalities in the developing retina and visual pathways, resulting in visual impairment.

The grant to **Michael O. Hall, PhD**, Professor of Ophthalmology, furthers his lifelong research involving the interaction of the photoreceptors with the retinal pigment epithelium, a critical process in maintaining vision. His recent discovery that the signaling molecule Gas6 is involved in a crucial step of photoreceptor renewal may offer new information about genetic mutations that cause a form of retinitis pigmentosa. He will use the grant to elucidate the complete biochemical pathway initiated by Gas6.

The Muscular Dystrophy Association awarded a research grant to **Kent W. Small, MD**, Professor of Ophthalmology, to identify the gene responsible for a specific neuromuscular disease (Charcot-Marie-Tooth type 6 disease) that causes muscle weakness and optic nerve atrophy. Dr. Small will use gene mapping to localize the responsible gene, which has been isolated in the DNA of a large family. He will then screen candidate genes until the mutation is found.

Research grants have been awarded to vision science fellows who are pursuing investigations into two different hereditary eye diseases. EyeSTAR fellow **Vinit B. Mahajan, MD, PhD**, received a Giannini Family Foundation Fellowship Grant to study the properties of the newly discovered *OAI* gene in ocular albinism. Postgraduate fellow **Eiko Kitamura, PhD**, has received a Fight for Sight Fellowship Grant to study the *Rd4* mouse model of retinal degeneration and hopes to identify the gene responsible for this mouse disease, which will become a candidate for the cause of retinal degenerations in humans. **Debora B. Farber, PhD**, mentors both vision science fellows, who are conducting their research in her laboratory.

Xian-Jie Yang, PhD, Assistant Professor of Ophthalmology and Neurobiology, received the prestigious Dolly Green Scholar Award from Research to Prevent Blindness (RPB). As part of the Special Scholars Awards, this grant recognizes and rewards promising young scientists of exceptional merit. Dr. Yang's primary research interest is the molecular mechanisms underlying development of the neural retina. Recently, in collaboration with **David S. Williams, PhD**, at the University of California, San Diego, she has begun to develop a gene therapy approach for a major class of retinitis pigmentosa called the Usher 1B syndrome.



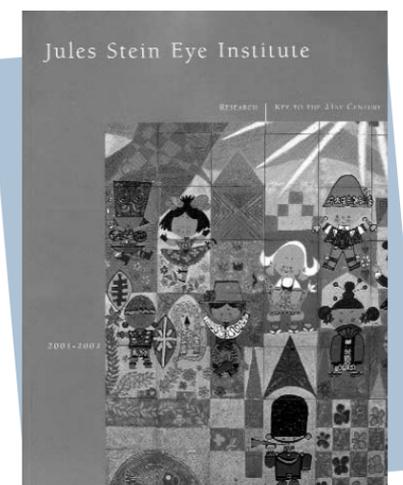
Xian-Jie Yang, PhD

DR. JOHN HECKENLIVELY LEAVES THE INSTITUTE FOR A DISTINGUISHED POSITION

After 25 years as a full-time faculty member of the Jules Stein Eye Institute, **John R. Heckenlively, MD**, Vernon O. Underwood Family Professor of Ophthalmology, accepted an appointment as The Paul Lichter Professor of Ophthalmic Genetics at the University of Michigan, Kellogg Eye Center, in Ann Arbor, Michigan, effective January 1, 2004. Dr. Heckenlively was the director of the UCLA Vision Genetics Center, conducting research and treating patients within the ophthalmic subspecialty of hereditary retinal diseases. This new position is a distinguished honor, and the JSEI faculty and staff wish him every success.

JSEI ANNUAL REPORT WINS AWARD

The 2001–2002 *JSEI Annual Report* won The Premier Print Award in the category of Business and Annual Reports. This publication is a team effort led by JSEI Director, **Bartly J. Mondino, MD**, Associate Director, **Debora B. Farber, PhD**, and Senior Editor **Barbara L. Pawley**; with photographer **Charles J. Martin**, designer **Robin Weisz**, production coordinator **Christopher Coniglio**, and typesetter **Lesley Zanich** (The Oak Company). As the printing industry's oldest, largest and most prestigious, worldwide, graphic arts competition, The Premier Print Awards promote excellence in the industry and recognize companies and individuals who produce the best in print media. The 2001–2002 *JSEI Annual Report* was submitted to the competition by Colornet Press, the recipient of the award.



2001–2002 JSEI Annual Report

IN MEMORIAM

ROBERT E. BARTLETT, MD

Institute faculty and staff were saddened to learn of the passing of Robert E. Bartlett, MD, Clinical Professor of Ophthalmology, on September 19, 2003. Dr. Bartlett had a long association with UCLA that began with his undergraduate education. After medical school training at the University of Southern California, he served as a captain in the United States Army, receiving the Bronze Star. Following World War II, Dr. Bartlett returned to Los Angeles and completed his residency training at the Veterans Administration Hospital (VA). In 1953, Dr. Bartlett assumed the position of Chief of Ophthalmology at the VA, where he pioneered many ophthalmic plastic surgery procedures. After more than two decades in that position, he went into private practice in Westwood, continuing to serve UCLA as a volunteer faculty member. After a career that spanned five decades, Dr. Bartlett was awarded the S. Rodman Irvine Prize for faculty excellence by JSEI in 1991. He was responsible for training a generation of ophthalmologists in the Los Angeles area and will be recalled with affection by colleagues and students for many years to come.



Major Gifts

Estate and Trust of Emily G. Plumb

A generous gift from the Estate and Trust of Emily G. Plumb will benefit vision science research at JSEI. Emily, and her husband, Rollo, were both Bruins, having graduated from UCLA's Vermont Avenue campus in 1927. The income from this trust will have a significant impact on the most promising basic science and clinical investigations to further research for the prevention and cure of blindness. This gift is a philanthropic milestone for the Institute and a wonderful legacy for the Plumbs.

If you have included the Jules Stein Eye Institute in your estate plans or for more information on gift planning at JSEI, please contact the Development Office at 310-206-9701.

Annenberg Foundation Gift

The Annenberg Foundation made a significant pledge to support three direct service programs benefiting children and adults with vision problems in the greater Los Angeles community. The Children and Families Program provides assistance with the full range of ophthalmic care leading to and following surgery for families who do not qualify for government support, but cannot afford health insurance. The Pediatric Contact Lens Fund helps parents of children with congenital cataracts purchase the multiple sets of contact lenses necessary to correct vision during the period of rapid ocular growth in the first years of life. The services of the UCLA Mobile Eye Clinic, a specially designed bus that provides free eye exams at senior citizen and community centers, schools, shelters, and health fairs around Southern California, will be expanded as a result of this gift. The Annenberg Foundation is the successor corporation to the Annenberg School at Radnor, Pennsylvania, established in 1958 by Walter H. Annenberg, distinguished publisher, broadcaster, diplomat and philanthropist. His daughter Wallis directs the Los Angeles office of the foundation as vice president.

IN MEMORIAM ADRIENNE UNDERWOOD

Along with family and friends, the faculty and staff of the Jules Stein Eye Institute mourn the passing of Adrienne Underwood on November 3, 2003. She and her late husband, Vernon O. Underwood, Sr., were generous supporters of the Institute. Gifts included a fund to provide ongoing support for the Institute's clinical fellowship program. In 1995, Adrienne Underwood established the Vernon O. Underwood Family Chair of Ophthalmology in memory of her late husband. "The Underwood family has had a long history with the Institute, dating back to Jules Stein. We are grateful for their support and involvement, and are deeply saddened by the loss of Mrs. Underwood," said Bartly J. Mondino, MD, Director of the Jules Stein Eye Institute.

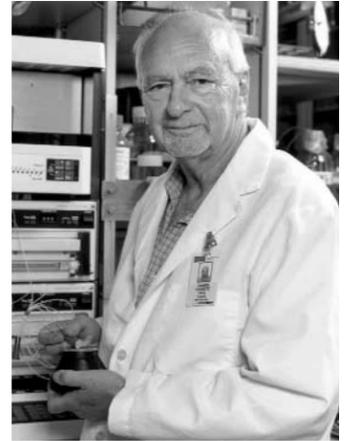


If you would like to make a contribution to the Institute, you may do so by means of the remittance envelope included in this issue of EYE. For additional information, please call or write to the following:

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DR. JOSEPH HORWITZ APPOINTED TO THE OPPENHEIMER BROTHERS CHAIR

Starting with his undergraduate education, **Joseph Horwitz, PhD**, Professor of Ophthalmology, has a long association with UCLA. He began his vision science research career in 1966, and has been a full-time faculty member at the Jules Stein Eye Institute since 1971. He has devoted his efforts to the study of the alpha-crystallin protein, an important structural component of the eye lens and a critical factor in the development of age-related cataracts. His research has led to two major breakthroughs in the understanding of the role of alpha-crystallin in this disease process.



Dr. Joseph Horwitz

Numerous awards and honors bestowed on Dr. Horwitz include the Research to Prevent Blindness Senior Scientific Investigator Award, which he received twice, in 1992 and 1998; the Alcon Laboratories Recognition Award for Outstanding Contributions in the Field of Vision Research, given in 1984 and 1995; the Proctor Medal in Ophthalmology, one of the highest honors in the field, awarded in 1992; and the National Eye Institute (NEI) MERIT Award, which has supported his research since 1994. Dr. Horwitz has been on the editorial board of *Experimental Eye Research* and *Investigative Ophthalmology and Visual Science*. Currently he is on the editorial board of *Biochimica et Biophysica Acta*. He has served on many NEI committees, including the National Advisory Eye Council. At JSEI, he has been a respected mentor and advisor to vision science fellows for over 30 years.

Dr. Horwitz's selection for the Oppenheimer Brothers Chair in Ophthalmology is both an honor and an affirmation of his stature in the field. The Chair was made possible by a generous gift from the **Oppenheimer Brothers Foundation**. The four sons of the Brigadier General H. L. Oppenheimer, son of Doris Stein, established this relatively new foundation in 1997. H. Tony Oppenheimer is President and his brothers Reed, Eric and Hal, make up the executive board. This gift is the first major contribution to the vision sciences by this foundation.

THE FIRST LEONARD APT FELLOWSHIP

Michelle T. Britt, MD, was awarded the first Leonard Apt Fellowship in Pediatric Ophthalmology, for the 2003-2004 academic year. For Dr. Britt, the fellowship follows residency training in ophthalmology at JSEI, which she completed in June 2003. Established by **Leonard Apt, MD**, Professor Emeritus of Ophthalmology and Founding Chief of the Division of Pediatric Ophthalmology and Strabismus, the fellowship will be available in perpetuity and awarded to exceptional clinical fellows in the field of pediatric ophthalmology and strabismus at the Jules Stein Eye Institute.



Drs. Leonard Apt and Michelle Britt

JULES STEIN EYE INSTITUTE PARTNERS FOR HIGH TECH EYE SCREENING

With the support of generous donors, the Jules Stein Eye Institute's Retina Division is currently using telemedicine in several essential and unique programs that seek to prevent long-term vision loss by screening for eye disease before symptoms are evident and loss of vision has occurred. Ophthalmic screening is particularly amenable to telemedicine because it simply requires data about the patient and an image that can be digitally acquired and transmitted. This information enables the ophthalmologist to interpret and act upon any abnormalities.

Saving Young Eyes

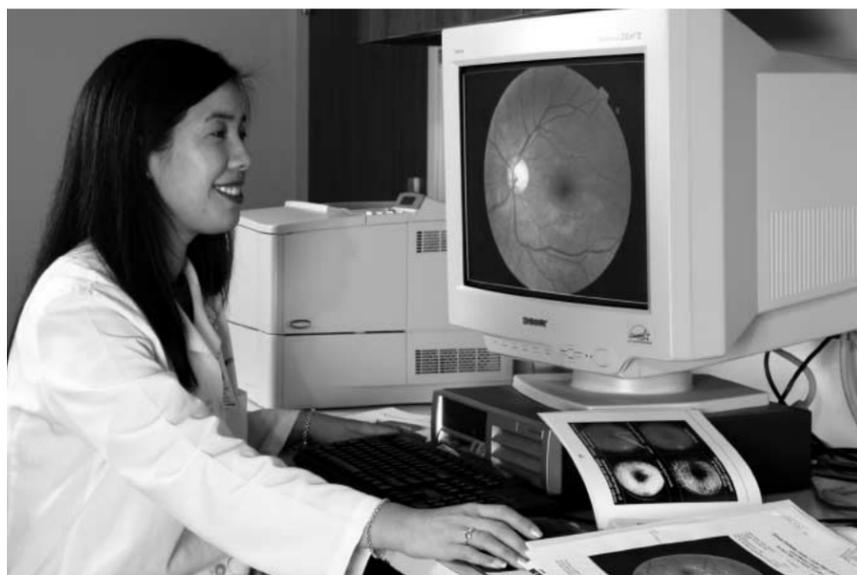
Telemedicine programs can lower the risk of retinal blindness in children by improving timely and appropriate referral for retinopathy of prematurity (ROP), a potentially blinding disease that is characterized by abnormal blood vessel growth in the eyes of premature babies. Vision loss due to ROP can usually be avoided through screening and proper treatment for babies born below a certain weight. JSEI has installed digital cameras in the neonatal intensive care units in Westwood and Santa Monica hospitals to screen the eyes of premature infants for ROP. The digital cameras provide high-resolution panoramic images of the retina, which are transported electronically to JSEI for review and evaluation. The program has resulted in improved screening for ROP and better utilization of ophthalmology resources.

Saving Diabetic Eyes

JSEI is collaborating with the Gonda Diabetes Center, UCLA, and the Venice Family Clinic to increase access to diabetic vision screening through telemedicine. At the Gonda Diabetes Center, UCLA, screening for diabetic retinopathy has become part of each patient's regular diabetes treatment. The screening is conducted with a special nonmydriatic camera that does not require dilation of the eyes. This enables non-ophthalmic technicians to take the images, which are telecommunicated to the retina team at JSEI for interpretation and follow-up. "The hope

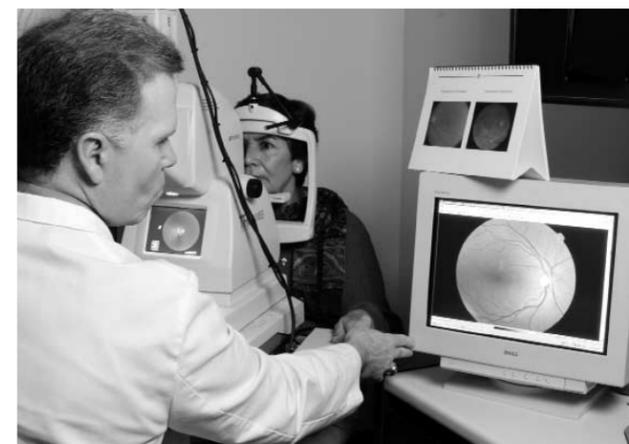
is that by eventually placing telemedicine capability at all UCLA endocrinology, general medicine, and family health clinics, we can provide comprehensive diabetic retinopathy screening and greatly enhance the quality of care," explains **Steven D. Schwartz, MD**, Associate Professor and Chief of the Retina Division.

In another program, the Venice Family Clinic (VFC) and JSEI have established a telemedicine service that connects volunteer eye specialists at UCLA to the clinic's patients. Using a digital camera procured through the Community Access Program, staff at the VFC take retinal photographs as part of patients' normal diabetes examinations, storing them on the clinic's server. The retina team accesses the digital images via a network connection at JSEI, entering clinical impressions directly into the VFC computer. "In this way we can expand access to diabetic retinopathy screening by 90%, improving detection of a disease that often leads to blindness if not treated," said **Susan Fleischman, MD**, VFC's medical director. The clinic treats 1,500 diabetic patients each year, of whom 80% are aged 40 and older. VFC patients typically have no insurance and subsist on incomes no higher than \$18,000 for a family of four.



JSEI optometrist Dr. Jennie Kageyama views digital images that are transmitted to the Institute from telemedicine acquisition stations at UCLA and in the community.

"Diabetic retinopathy is the leading cause of preventable blindness in working age Americans," says Retina Division chief Dr. Steven Schwartz. "With early detection, loss of vision can often be avoided. Telemedicine programs are an important resource in meeting this goal."



(clockwise from top) The UCLA Neonatal Intensive Care Unit, the UCLA Gonda Diabetes Center, and the Venice Family Clinic are participating in telemedicine programs with JSEI to screen for retinal diseases.

photo: Margaret Malloy

Special Thanks to 2003 Make Surgery Bearable Supporters

A special thanks to everyone who contributed to the 2003 JSEI Affiliates Make Surgery Bearable holiday fundraising efforts. The holiday campaign raised enough money to sponsor over 100 new Dr Teddy MD teddy bears for future pediatric patients.

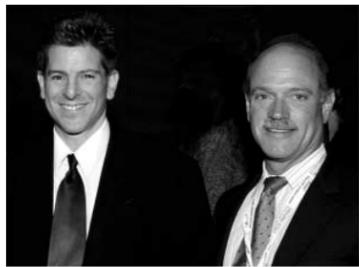
Don't forget—teddy bears can be sponsored year round! Contact the Jules Stein Eye Institute Affiliates at (310) 825-4148, or visit our website at www.jseiaffiliates.com for additional information or a sponsorship form.



Special Events & Activities



Dr. Gary Holland (far left) was congratulated on the Edward Jackson Memorial Lecture by (left to right) Drs. Peter Cornell, Lynn Gordon and James Weiss.



Department of Ophthalmology Association Treasurer and Secretary Dr. Robert Goldberg (left) with ophthalmic plastic surgery fellow alumnus Dr. Stuart Seiff.



JSEI Director Dr. Bartly Mondino (left) welcomed alumnus Dr. Carl Camras, Chairman of the Department of Ophthalmology at the University of Nebraska.

UCLA DEPARTMENT OF OPHTHALMOLOGY ASSOCIATION HOSTS ANNUAL RECEPTION

The UCLA Department of Ophthalmology Association hosted its annual reception at the American Academy of Ophthalmology (AAO) meeting in Anaheim, California, on November 17, 2003. There was an outstanding turnout. The reception accommodated over 200 JSEI faculty, staff, and resident and fellow alumni from around the world. They renewed acquaintances and congratulated Gary N. Holland, MD, David May II Professor of Ophthalmology, on the prestigious 60th Edward Jackson Memorial Lecture, which he presented at the AAO opening ceremonies.



Dr. Gary Holland welcomed JSEI supporter Shirley Ritts, mother of the late photographer Herb Ritts, Jr.



Dr. D. Rex Hamilton (far left), newly appointed director of the JSEI Laser Refractive Center, with fellow alumni (from left to right) Drs. Bobbie Parwar, Kayur Shah and Stan Saulny.

Interested in joining?

If you would like additional information on how to join the UCLA Department of Ophthalmology Association, please contact the JSEI Development Office at (310) 825-4148 or e-mail cdoson@jsei.ucla.edu. You can obtain a membership registration form and view additional reception photographs on the JSEI website www.jsei.org/About/about_jules_uclaophthalmology.htm



Neuro-Ophthalmology Division chief Dr. Anthony Arnold (second from right) caught up with JSEI Alumni (left to right) Drs. Arthur Benjamin, Sam Gallo, and (at far right) Matthew Wheatley.

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 and 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 LASEK/PRK) | (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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Address Correction Requested JS-85

