Dear Friends,

We devote this issue to the retina and its disorders and proudly introduce our outstanding vitreoretinal team. Expertise, technology, innovation, and collaboration help to make our department a leader in this field, and one of the finest in the country.

A lais, we welcome new faculty with enthusiasm and salute recent retirements with affection and gratitude. These individuals devote their careers to advances in vision care through scientific discovery and to inspiring our next generation of vision scientists and clinicians.

Their research investigates promising new drug therapies and delivery systems, providing hope that future generations might be spared from eye diseases that prevail today.

For nearly 35 years, our success has been greatly enhanced by the generous support of our friends through That Man May See.

Your gifts to That Man May See help us remain agile and resourceful in the face of the ever-changing challenges to advancements in medical research. Thank you for your part in our vision.

Sincerely,
Stephen D. McLeod, MD
Theresa M. and Wayne M. Caygill, MD Chair in Ophthalmology
Professor and Interim Chair, UCSF Ophthalmology

A tiny patch at the back of the eye, the size and thickness of a postage stamp – the amazing retina has millions of specialized cells that capture visual information and translate it to the brain, so that we “see” visually rich moving images, with color, depth, and subtleties of shading.

Like the workings of a sophisticated video camera, light reflected from objects is focused by the eye’s cornea and lens onto the light-sensitive retina. Millions of tiny nerve cells and chemical interactions in the retina are involved in a complex sequence that transforms the reflections into signals to the brain’s visual cortex, so that we can “see” the images before us. (See How the Retina Works, page 8.)

Where Visual Perception Begins
Without a functioning retina, the eye cannot communicate with the brain, and vision is impossible. The retina is where the first phase of visual perception occurs.

Because the retina plays such an important role in processing images before they can be “seen,” a damaged retina can cause dire vision problems, including blindness.

Investigators at UCSF Ophthalmology are internationally recognized for studies of the retina, and discoveries that maintain sight.

Their research investigations promise significant improvement in patient care and quality of life for patients worldwide.

An internationally renowned retinal surgeon and inventor, and president of the American Society of Retinal Specialists, Dr. de Juan has been named Jean Kelly Stock Distinguished Professor of Ophthalmology at UCSF. He will focus on translation of new research results to significantly improve patient care and quality of life for patients worldwide.

Envision the Future
Patient-Centered Innovation
Renowned Retinal Surgeon Eugene de Juan, Jr., MD, Joins the Retina Faculty

Eugene de Juan, Jr., M.D. “My goal is to effect as much good as I possibly can as a doctor,” says the newest member of the retina faculty. Eugene de Juan, Jr., M.D. “So I care for retina patients, and figure out practical, implementable ways to significantly improve patient care and quality of life for patients worldwide.”

An internationally renowned retinal surgeon and inventor, and president of the American Society of Retinal Specialists, Dr. de Juan has been named Jean Kelly Stock Distinguished Professor of Ophthalmology at UCSF. He will focus on translation of new research results to significantly improve patient care and quality of life for patients worldwide.

From the retina research profiles, page 8.

Continued on page 2

Continued on page 2

A PEEK INSIDE:

Ophthalmology Insight
The Amazing Retina

Focal Point

The Patient's Point of View: Jim Graziani

Faculty Profile: Dr. Robert Bhisitkul

Research Profile: Collaborations Achieve Results

Dr. Craig Hoyt Honored with Endowed Chair

Envision the Future: Dr. Eugene de Juan at UCSF
Companies will take the risk to push new therapies forward," says Dr. de Juan, explaining his role in initiating commercial development of new ophthalmic products.

For the past 15 years, Dr. de Juan has been director of the innovative MADLAB (Microsurgery Advanced Design Lab), where bioengineers have collaborated with vision researchers to develop over 100 vitreoretinal instruments and devices. MADLAB has now moved to UCSF, where it operates in conjunction with VA laboratories to improve surgical instrumentation.

"UCSF is internationally recognized for important strides in basic knowledge of the retina and diseases of the retina," Dr. de Juan says. For example, pioneering investigations by Professor of Ophthalmology and Anatomy Matthew LaVail, PhD, and the late Professor of Ophthalmology and Physiology Roy Steinberg, M.D., Ph.D., first showed that growth factors could protect photoreceptors from injury or retinal degeneration. "These discoveries opened the door to pharmacological treatment of retinal degenerative disease."

**Revolutionary New Products**

"Socially responsible universities like UCSF develop the scientific basis for potentially good therapies so that companies will take the risk to push new therapies forward," says Dr. de Juan, explaining his role in initiating commercial development of new ophthalmic products.

The Amazing Retina

Continued from page 1

**Fighting Retinal Disease and Injury**

There has been a nearly epidemic increase in retinal degeneration and blindness from diseases that affect the retina in our aging population—macular degeneration, diabetic retinopathy, and retinitis pigmentosa. Retinal problems like the aggressive and often life-threatening retinoblastoma tumor affect the very young.

Our scientists are widely recognized for groundbreaking clinical and molecular studies of the retina. New technologies for treatment. Daniel Schwartz, M.D., director of the retinal service at UCSF and the Veterans Administration, has worked closely with scientists at California Institute of Technology (Caltech) for over 10 years to develop new technologies for treating eye disease. Their first invention, a laser-adjustable lens for use in cataract and refractive surgery, is in clinical trials and will be available in the European Union this year. Dr. Schwartz has authored approximately 30 patents.

Promising new drug therapies. Researchers Jacques D’Cunia, M.D., Eugene de Juan, Jr., M.D., Robert Bhaskar, M.D., Ph.D., and Jay Stewart, M.D., are assessing promising medications targeting macular degeneration and investigating methods to release medications directly into the eye. Joan O’Brien, M.D., is known internationally for investigating new therapies for ocular tumors including the childhood retinoblastoma. (See profile of Dr. Bhaskar, page 5.)

Groundbreaking basic research. Basic retinal research opens the doors to novel therapeutic possibilities. David Copenhagen, Ph.D., studies the communication of neurons in retinal disease; Julie Schnapf, Ph.D., explores the basis of visual perception of colors and shapes; and David Krizaj, Ph.D., examines the cellular mechanisms that make vision possible.

New AMD treatments. Dr. Schwartz and his collaborators at Caltech have active research programs for treatment of early macular degeneration, degenerative myopia, and a safer alternative to LASIK vision correction surgery.

Advances in groundbreaking “growth factor” research by investigators Matthew LaVail, Ph.D., Dr. D’Cunia, and Dr. Bhaskar could improve treatment for dry AMD, and may yield a treatment for wet AMD. (See Discovering New Ways to Treat Macular Degeneration, page 11.)

Another approach to AMD treatment by Dr. Schwartz and Department of Medicine
Artificial Retina Could Bring Sight To Millions

Dr. de Juan's tremendous success in ophthalmic innovation begins with research at the university.

Within this decade, many blind persons might “see” again, thanks to a unique artificial retina that Dr. de Juan has developed in collaboration with biomedical and engineering researchers from UCSC Doheny Eye Institute, North Carolina State University, and U.C. Santa Cruz. They created a retina chipset, using state-of-the-art microelectronics, with a camera mounted on the patient's glasses and a chip in the patient's eye. Initial studies, with 17 blind patients who have “seen” image patterns, were the first to demonstrate that patterns of electric pulses into a blind eye could produce a visual response.

The artificial retina is now under development at Second Sight Medical Products, Inc., in Los Angeles. “This could not have happened without the work at the University of South Alabama College of Medicine in 1979, and was the first recipient of the school’s Distinguished Alumni Award. He was a resident at the William Eye Institute, Johns Hopkins University, and a fellow in vitreoretinal surgery at Duke University, before joining the Duke faculty with an appointment in ophthalmology and cell biology.

Prior to joining the U CSF retina faculty, dr. de Juan was Joseph E. Green Professor of Ophthalmology Inaugural Chair at the William Eye Institute, and was subsequently USC professor and CEO of the USC Doheny Retina Institute.

He and his wife of 30 years, Elizabeth, moved to San Francisco from Los Angeles this spring. They have four children: one in college in Tennessee, two in business in Tennessee, and one a business consultant in M exico City.

They are avid sailors, and when Dr. de Juan is not in the laboratory or seeing patients, the couple might be found in a sailboat on San Francisco Bay.

“This work is my life, my vocation, my happiness," says Dr. de Juan. "If we can successfully develop innovative ophthalmic solutions, working with innovators in other fields of science, we will be able to share new approaches with our colleagues, residents, and students. Together, we will imagine, develop, and provide better therapy for our patients.”

Ophthalmology is so widely recognized nationally as a leader in translational research and to patients, and doing that ethically and effectively.

Dr. de Juan joins a team of innovative retina researchers at UCSF who are reaching out across university lines - to biologists, bioengineers, and beyond, in Berkeley, UCSA, Caltech, and across the world - to enhance their understanding and explore potential therapeutic avenues in ophthalmology.

At UCSF, Dr. de Juan is initially focusing on two areas of retina research:

Local Administration of Drug Therapies. This would solve a major problem in ophthalmology by delivering drugs exactly where they are needed, with fewer side effects. Direct administration of drugs to the eye, which is 1/1000 of the body weight, would reduce the high dosages of oral medications now required to treat the retina. Jay Stewart, MD, who collaborated with Dr. de Juan at USC, will also be working on this project.

New Surgical Techniques and Instrumentation. Making surgical techniques less invasive, with instruments that are more efficient, means recovery will be faster and surgery will be less expensive. Robert Bhisitkul, MD, PhD, is collaborating with Dr. de Juan on bringing new technologies to surgical instrumentation (see profile of Dr. Bhisitkul on page 5).
Jim Graziani’s Gratitude

Graziani in Italian is a way of saying “thanks.” For Jim Graziani of Napa, California, gratitude pours off the tongue for UCSF’s Professor Robert B. Bhistikul, M.D., Ph.D. Jim is being treated at UCSF Ophthalmology with a relatively new procedure to combat macular degeneration.

“It all started when I was pounding a nail, and the nail looked bent,” said Jim, in describing the onset of macular degeneration. “Then I tried to hit a golf ball, and the ball looked like a half moon. My golf shoes looked pointed,” he continued.

These early signs were an indication of age-related macular degeneration (AMD), the leading cause of blindness in Americans 60 years and older. The disease can appear suddenly for otherwise healthy people, who then lose the ability to read and drive, and are at risk for early loss of an independent life.

Napa’s John Bosetti, M.D. (UCSF School of Medicine ’87 and ophthalmology resident ’91) was treating Jim and suggested he make the trip to San Francisco for an appointment with Dr. Bhistikul.

New AMD Treatment with Macugen

“Dr. Bhistikul knows the latest research in his field,” says Jim. “He told me about a new treatment with a drug called Macugen.” The drug is approved for all forms of wet AMD, and it is produced and marketed by OSI Eyetech and Pfizer Inc.

The wet form of macular degeneration is caused by the abnormal growth of fragile blood vessels under the retina that leak blood and cause damage to the light-sensitive photoreceptor cells. Macugen works by blocking vascular endothelial growth factor (VEGF), a protein that promotes blood vessel growth. It has the potential for helping all patients with the wet form of the disease, whereas the currently approved treatment, photodynamic therapy (PDT), is approved only for patients that have a subtype of wet macular degeneration.

Jim Graziani and his wife Julie traveled together to a recent appointment with Dr. Bhistikul. Julie has been Jim’s willing chauffeur for lots of errands and appointments throughout the experience of Jim’s vision loss.

But Julie celebrated when Jim started driving again and said, “For the first time in a long time, Jim could finally drive to buy himself a chocolate bar and not have me know about it.”

Jim and Julie are new members of the Chairman’s Forum, the support group at That Man May See, providing unrestricted support to be used for research to prevent vision loss for current and future generations. That Man May See joins Jim and Julie in their gratitude – Grazie.

Nerve Repair with Nanotechnology

Colleagues Praise Dr. David Sretavan’s Approach

Calling the work on a multidisciplinary strategy to manipulate single axons (nerve cells) using micro/nanotechnology “an innovative new nerve repair paradigm,” scientific colleagues praise the research by Professor David Sretavan, M.D., Ph.D., on microscale axon surgery, published in Neurosurgery, October 2005.

Researchers who extolled Dr. Sretavan’s work include the chairman of the Cleveland Clinic Spine Institute, neurosurgeon Edward C. Benzel, M.D., who called it “a wonderful glimpse into the future of ‘high-tech’ neurosurgery” and said that “the strategies and methodologies [the authors] outline should lead us to believe that some day they (or those who they inspire) will actually ‘pull it off.’” Other commendations came from neurologist Stephen M. Russell, M.D., director of the Stereotactic Laboratory, and Patrick J. Kelly, M.D., director of the Department of Neurosurgery at NYU.
Finding Multiple Approaches to Improving Vision

Dr. Robert Bhisitkul

The most exciting part of research to me is confronting our goals toward improving vision in major retinal diseases like age-related macular degeneration (AMD) and diabetic retinopathy," says retina researcher, Associate Professor Robert Bhisitkul, MD, PhD. Trained as a neuroscientist and ophthalmologist, Dr. Bhisitkul's work incorporates research, surgery, teaching, and patient care. He is also Web site editor for the British Journal of Ophthalmology.

Dr. Bhisitkul has been actively involved in developing and assessing new therapies for retinal disease. He directs clinical trials at UCSF as part of national studies, including an investigation showing that the drug Lucentis (ranibizumab) could maintain or improve vision for patients with AMD. Lucentis, along with Macugen, are in a new class of "anti-VEGF" (vascular endothelial growth factor) medications to treat AMD. Ongoing Phase III studies of Lucentis at UCSF will evaluate its long-term effects next. Another new study at UCSF will evaluate extended use of the drug Macugen, now prescribed to treat AMD patients, for patients with diabetic macular edema.

Major Improvements in AMD Therapy

"We have seen major breakthroughs in therapies for AMD, which is the leading cause of vision loss and blindness in Americans over 65," Dr. Bhisitkul reports. "Five years ago, we had no treatment for AMD beyond laser surgery to cauterize bleeding vessels beneath the macula (the center of the retina where detailed vision occurs).

"We are now successfully stabilizing vision in the majority of patients with wet AMD," he says. "In the future, we will begin combining these therapies to get synergistic improvement in the outcomes. Today there are five viable treatment options for wet macular degeneration – Viacyte™ drug treatment with photodynamic therapy (PDT), Macugen, Lucentis, Avastin, and intra-vitreal steroids – and many other drugs in development that will become available in the next two to five years.

For patients with dry macular degeneration, an extensive National Eye Institute (NEI) Age-Related Eye Disease Study (AREDS) showed that high-potency antioxidant vitamins (Ocurol PezerVision antioxidant zine tablets) could protect the macula from AMD damage.

New Approaches to Macular Degeneration

Dr. Bhisitkul is currently involved in two laboratory projects that could impact treatment for macular degeneration – a study of subretinal hemorrhage, and a study in collaboration with Drs. Duncan and Lavel in to enhance PDT (photodynamic therapy).

"Our study of subretinal hemorrhage could lead to treatment that would halt or reverse damage to photoreceptor cells in AMD," Dr. Bhisitkul says. Preliminary research, presented at the ARVO (Association for Research in Vision and Ophthalmology) conference in May 2006, showed that the blood itself is toxic to the retina and causes photoreceptor cells to die within 24-48 hours. The hypothesis is that the toxicity is due to iron molecules released in the hemorrhage.

"We have shown that neurotrophic growth factors (NTFs) can reduce retinal cell death from PDT (a light-activated laser treatment) with Viacyte™ for AMD," Dr. Bhisitkul reports. This research collaboration with Jacque L. Duncan, MD, and Matthew M. Lavel, PhD, was published in 2004 in Investigative Ophthalmology and Visual Science.

Combining Significant Research with Excellent Patient Care

"I have always seen treating retinal disease as a form of applied neuroscience," says Dr. Bhisitkul, who received a PhD at the Yale Graduate Program in Neurosciences. He was an undergraduate at Stanford University and attended medical school there.

Following a residency and fellowship at Harvard's Massachusetts Eye and Ear Infirmary, Dr. Bhisitkul joined the faculty at UCSF in 1998. "I welcomed the chance to work with the retina director Daniel M. Schwartz, MD, and the esteemed retina pioneer Alexander R. Irvine, MD. I saw this as the best chance to combine significant research with excellent patient care."

Dr. Bhisitkul reports. "Five years ago, we had no treatment for AMD beyond laser surgery to cauterize bleeding vessels beneath the macula (the center of the retina where detailed vision occurs)."
Today, we are trying to understand the molecular and genetic basis of the retina, and we are starting to see a synergy between the clinical physician who knows what the eye problem is, and basic scientists who attack it on a molecular level," says Professor Emeritus Alexander Irvine, M.D. "But in 1965, when I first became a resident at UCSF, the emphasis was on understanding the anatomy of the eye and eye disease, using the light microscope and then the electron microscope, he recalls. "Starting in the 1950s, our department chair, Michael Horgan, M.D., became interested in using the electron microscope to study the ultrastructure of the eye, and incorporated his research findings in the classic textbook, *Histology of the Human Eye.*"

After his residency at UCSF, Dr. Irvine went on to complete fellowships in cornea at the University of Florida, and in retina at the University of Miami, Bascom Palmer Eye Institute. He became assistant chief of ophthalmology at San Francisco's Letterman Army Medical Center in 1970, and joined the U.C.S.F. Ophthalmology faculty in 1972, where he became professor and department vice chair. He was named professor emeritus in 1998.

**The Retina in Fine Detail**

"In the late 1960s, fluorescein angiography (examining the circulation of the retina) was developed and opened a whole new understanding of retinal disease," Dr. Irvine says.

"Then, within the last two years, retina diagnosis was dramatically changed again, with optical coherence tomography (OCT), an imaging technique that produces high-resolution cross-sectional views that allow clinicians to see the retina in fine detail. A new electrophysiologic test, multifocal electroretinography (ERG), allows us to assess retinal macular function, to determine whether a vision problem is caused by changes in the retina or elsewhere."

"Now drug therapies can now target specific molecules, as the molecular basis of disease is discovered," Dr. Irvine reports. "In macular degenerations where abnormal blood growth occurs, drugs can block the offending molecules. This field is just beginning to erupt."

**Teaching the Next Generation**

Dr. Irvine continues to play an active role in resident training, as he has for over three decades, and he is a beloved member of the retina faculty. He co-directs the weekly teaching conference at UCSF Ophthalmology, known as the Fluorescein Conference, where retinal photographs of patients are shown, and diagnosis and treatment are discussed. His students and colleagues praise Dr. Irvine's dedication and thoughtful guidance in delivering the best care for patients with eye problems.

---

**Helping Residents Excel**

**A Focus on Resident Education**

A resident has a short period of time to learn a vast amount of material and skills," says Clinical Instructor Marsha Kavanagh, M.D., who was appointed this year to maintain a crucial focus on resident education.

Working with Doug Fredrick, M.D., who is the residency director, her role has been to work closely with residents, particularly the first-year students, to guide them in their work at UCSF, San Francisco General Hospital, and the Veterans Administration; to help them in the clinic and in the operating room; and supervise them at the inpatient consult service.

**Guiding Residents**

Dr. Kavanagh and Fredrick piloted this new program, which is somewhat similar to that of a chief resident in other programs who guides and mentors residents. As part of her job, she and Dr. Fredrick developed a new curriculum to organize the material that all first-year residents should have read in the field, based upon the American Academy of Ophthalmology Basic and Clinical Science Course. She took on the role shortly after graduating from U.C.S.F. as a resident in 2005.

"Dr. Kavanagh begins a two-year fellowship in oculoplastic surgery in Columbus, Ohio, this fall," says Dr. Fredrick. "He department conducted a nationwide search to find a replacement who possesses her prodigious skills as an educator, clinician, and researcher."

This fall, Cynthia Chiu, M.D., will join the faculty in this important role. Formerly assistant professor of ophthalmology at Cornell Medical Center, New York.

Connecting Residents and Faculty

"I believe that this position has enabled a better connection between residents and faculty," says Dr. Kavanagh. "Being straight out of residency at UCSF, it has been helpful for the residents to have me around this year, as I am so close to their experience."

"Dr. Kavanagh has been the single most influential physician thus far in my training at U.C.S.F," says resident Julie Chen, M.D. "She teaches the residents and makes us feel welcome at U.C.S.F. Of her own initiative, she developed a first-year curriculum and gave weekly teaching sessions to improve our level of knowledge. She is patient, encouraging, and an incredible teacher and mentor."

In recognition of her teaching, Dr. Kavanagh was awarded the U.C.S.F. Kimura Award for Excellence in Teaching and was nominated for the U.C.S.F. Kaiser Teaching Award, both in 2006.
Supporting Collaborative Vision Research
Achieves Results – Faster

Frannie Fleishhacker and the Lincy Foundation want to make a difference – quickly – by funding collaborative vision research projects with the promise of achieving near-term results. Both philanthropists recently provided major gifts to support faculty at UCSF who are attracting the best academic and business partners to move their ideas along at a rapid pace.

These two significant gifts, totaling over $750,000, helped That Man May See achieve over $1 million for collaborative teams bent on fast-tracking research efforts to find answers more quickly than possible by more traditional research methods. A strategic planning process of the past year overseeing the collaborative efforts, based on the foundation.

Revolutionary New Solutions
UCSF Ophthalmology has developed a business model that works. Five teams of researchers are currently tackling new solutions for the most prevalent eye diseases – macular degeneration and glaucoma – and developing new therapies and procedures that can revolutionize surgery for future generations.

With advances in technology, teams of specialists – in medicine, engineering, and chemistry, for example – can apply knowledge and skills from a variety of perspectives to finding new solutions to vision problems.

Collaborative Vision Research
at UCSF
includes innovative partnerships within and beyond the University. The UCSF teams are ideally suited to lead these collaborative efforts, based on track record, location, and successful development of the interdisciplinary model.

Unique Collaborations
In each of the five projects, the lead Collaborative Vision Research investigator is a UCSF ophthalmologist, while the collaborators may be at other universities or in other departments at UCSF. The following is a sample of each funded through contributors to That Man May See:

• Daniel Schwartz, M.D.: G roundbreaking macular degeneration research with UCSF scientists and engineers and chemists at Caltech, working toward the development of a novel therapy to diagnose and treat macular degeneration early in the course of the disease, before visual loss has occurred. This research team includes Nobel Prize winner R obert Grubbs, Ph.D.

• David Sretavan, M.D., Ph.D.: Surgery will be possible at the level of axons (single nerve cells), with the potential to repair nerves damaged by trauma or disease. Opening new doors in microscale surgical techniques can make a real difference in the future of medicine. A multidisciplinary team of engineers, microtechnologists, and eye researchers is developing minimally invasive tools to produce an innovative treatment for glaucoma.

• Eugene de Juan, Jr., M.D.: Prodigious efforts to extend medical improvements and provide hope for others in my lifetime. Now is the time to do this,” continues Mrs. Fleishhacker, who serves on the board of That Man May See and spent the past year overseeing the strategic planning process of the foundation.

M arsha Kavanagh was raised in Kansas City, received her BA from the University of Pennsylvania, and graduated from Harvard Medical School before coming to UCSF as a resident in 2002. She and her husband, Brian Kavanagh, formerly a scientist at the UCSF Cancer Research Laboratory, now live in Columbus, Ohio.

They met in Boston and spend much of their free time running and exploring the outdoors.

At Byers Hall (the UCSF QB3 building) for a meeting on collaborative research at UCSF Ophthalmology. From left to right, TMMS board member Stephen Smith, Dr. Kimberly Cockerham, TMMS board members John Hall and Jack Bush, QB3’s Associate Director, Dr. Doug Crawford, and Dr. Gene de Juan.

Significant Gifts for Collaborative Vision Research
In addition to significant gifts from Frannie Fleishhacker and the Lincy Foundation, support for this year for the Collaborative Vision Research efforts at UCSF Ophthalmology have been funded by the Chartrand Foundation, the John and Lisa Pritzker Family Fund, Mr. and Mrs. Charles D. Miller, the Hellman Family Philanthropic Fund, and Eugene de Juan, Jr., M.D.
How the Retina Works

Capturing Images
Transmitting Images to the Brain

1. **Photoreceptor cells (rods and cones)** convert light energy into electrical signals.

2. **Neurons** in the inner nuclear layer receive electrical signals from the photoreceptor cells.

3. **Retinal ganglion cells** transform the electrical signals from an analog code to a digital code.

4. **Optic nerve** transmits the electrical code of the visual image to the thalamus and cerebral cortex of the brain so you can "see" the image.

Retina Facts

- The human retina has a surface area of about 10 square centimeters, or 1.5 square inches.
- The thickness of the retina is about 300 micrometers, or 1/85th of an inch.
- The macula, the center of the retina where fine vision occurs, is about 0.3 centimeters in diameter.
- N number of retinal photoreceptors:
  - 5-6 million cones (used in daylight for color vision and fine detail).
  - 120-140 million rods (used for night vision).
- N number of fibers in the optic nerve – about 1 million.
- N number of retinal ganglion cells (optic nerve cells) – about 1 million.
- The retina is normally transparent – however, the back of the eye looks reddish-orange, due to the pigment in the cells beneath the retina, the retinal pigment epithelial (RPE) cells, and the underlying blood supply from the choroidal blood vessels. If your ophthalmologist sees any changes in the color or appearance of the retina, that may indicate a disease.

Retina Research Profiles

1. **PHOTORECEPTORS/RPE**

   - **Eugene de Juan, Jr., MD**
     - Join's Key Sloth: Distinguished Professor; President, American Society of Retinal Specialists
     - Research emphasis: Pharmacologic approaches to treatment of retinal degenerative diseases; novel surgical techniques and vitreoretinal surgical instrument development; implant devices to restore sight. Published over 200 scholarly, peer-reviewed journal articles, and amassed more than 40 issued patents.
   - C linical emphasis: Management of severe retinal degenerative diseases, retinits pigmentosa, and macular degeneration; microsurgery, retinal transplantation, retinal implants, and other new procedures.

   - **Jacqueline Duncan, MD**
     - Associate Professor; Director, Vitreoretinal Fellowship Program
     - Research emphasis: Characterization of retinal degenerations using novel imaging techniques; preclinical evaluation of retinal function in response to gene and pharmacological therapies for inherited retinal degenerations and longitudinal study of the ocular complications of AIDS.
     - Clinical emphasis: Diagnosis, electrophysiologic evaluation, and management of patients with retinal degenerative diseases, including age-related macular degeneration, retinitis pigmentosa, cone rod dystrophy, and Stargardt macular dystrophy.

2. **GANGLION CELLS**

   - **Matthew LaVail, PhD**
     - Professor of Ophthalmology and Anatomy; Director, Kearn Family Center for the Study of Retinal Degeneration
     - Research emphasis: Internationally recognized for groundbreaking research showing that growth factors can slow photoreceptor degeneration. Leader in the fields of neurotrophic factor therapy and gene therapy for retinal degenerations.

   - **Jay Stewart, MD**
     - Assistant Professor; Director, Vetrail Clinical Research; San Francisco General Hospital; Director, UCSF Vitreoretinal Service
     - Research emphasis: Therapeutics for degenerative retinal diseases.

   - **Hilary Beggs, PhD**
     - Assistant Professor of Ophthalmology and Physiology
     - Research emphasis: The molecular basis of optic nerve development and restoration of neural connections after visual system injury; the interaction of biology and nanotechnology to develop new tools for cellular microsurgery, at the level of the single cell.

   - **Alexander Irvine, MD**
     - Professor Emeritus
     - Research emphasis: Examination of the cause of cataracts, particularly following eye surgery; investigating the impact of sickle cell trait on the development of diabetic retinopathy.

   - **Jean Kelly Stock Distinguished Professor of Ophthalmology and Physiology**
     - Professor; Pearl T. and Samuel J. Thornburg Chair in Ophthalmology; Director, Ocular Biology and Genetics Center
     - Research emphasis: The role of the genome in the development of tumors with emphasis on adult ocular tumors and complex retinal detachment and macular pucker.

   - **David Sretavan, MD, PhD**
     - Associate Professor; Director, Retinal Service; Director, Veterans Administration Retinal Service
     - Research emphasis: The collaborative development of diagnostic tools to identify early evidence of macular degeneration, and novel therapies for early intervention in both atrophic and neovascular disease.

   - **David Schwartz, MD**
     - Associate Professor; Director, Retinal Service; Director, Veterans Administration Retinal Service
     - Research emphasis: The collaborative development of diagnostic tools to identify early evidence of macular degeneration, and novel therapies for early intervention in both atrophic and neovascular disease.

   - **Robert Bilkis, MD, PhD**
     - Associate Professor
     - Research emphasis: Laboratory development of novel therapy for macular degeneration based on specific molecular targets such as VEGF and HIF; development of MEMS-based vitreoretinal surgical devices and age-related macular degeneration therapeutic clinical trials.

   - **Joan O’Brien, MD**
     - Professor; Pearl T. and Samuel J. Kimura, MD Chair in Ophthalmology; Director of the Retinal Service
     - Research emphasis: Study of the molecular genetics of retinoblastoma with the goals of improving diagnosis and providing individualized treatments for this childhood eye cancer.

   - **Julie Schapira, PhD**
     - Associate Professor of Ophthalmology and Radiology
     - Research emphasis: Classic studies of the first steps in human vision; discovering how signals combine to create electrical code for the color, shape, and brightness of objects.

   - **Julie Schnapf, PhD**
     - Professor of Ophthalmology
     - Research emphasis: The molecular basis of photoreceptor degeneration.

   - **Eugene de Juan, Jr., MD**
     - Join’s Key Sloth: Distinguished Professor; President, American Society of Retinal Specialists
     - Research emphasis: Pharmacologic approaches to treatment of retinal degenerative diseases; novel surgical techniques and vitreoretinal surgical instrument development; implant devices to restore sight. Published over 200 scholarly, peer-reviewed journal articles, and amassed more than 40 issued patents.

   - **David Schwartz, MD**
     - Associate Professor; Director, Retinal Service; Director, Veterans Administration Retinal Service
     - Research emphasis: The collaborative development of diagnostic tools to identify early evidence of macular degeneration, and novel therapies for early intervention in both atrophic and neovascular disease.

   - **Robert Bilkis, MD, PhD**
     - Associate Professor
     - Research emphasis: Laboratory development of novel therapy for macular degeneration based on specific molecular targets such as VEGF and HIF; development of MEMS-based vitreoretinal surgical devices and age-related macular degeneration therapeutic clinical trials.

   - **Joan O’Brien, MD**
     - Professor; Pearl T. and Samuel J. Kimura, MD Chair in Ophthalmology; Director of the Retinal Service
     - Research emphasis: Study of the molecular genetics of retinoblastoma with the goals of improving diagnosis and providing individualized treatments for this childhood eye cancer.

   - **Julie Schapira, PhD**
     - Associate Professor of Ophthalmology and Radiology
     - Research emphasis: Classic studies of the first steps in human vision; discovering how signals combine to create electrical code for the color, shape, and brightness of objects.
Glaucoma surgery and Clinical emphasis:

To improve vision, using novel imaging and molecular techniques.

Clinical emphasis: Glaucoma surgery and Clinical emphasis: Medical and surgical management of adult and pediatric glaucoma, including glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Research emphasis: Interactions between neurons and glia that are required for the proper development and function of the nervous system, using gene chip molecular techniques.

Research emphasis: Finding new, simpler, better ways to diagnose glaucoma early; finding better ways to monitor for glaucoma progression; and assessing new pharmacological and surgical ways to prevent vision loss.

Clinical emphasis: Glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Research emphasis: Finding new, simpler, better ways to diagnose glaucoma early; finding better ways to monitor for glaucoma progression; and assessing new pharmacological and surgical ways to prevent vision loss.

Clinical emphasis: Medical and surgical management of adult and pediatric glaucoma, including glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Clinical emphasis: Glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Research emphasis: To improve glaucoma diagnosis and treatment through a basic understanding of glaucoma development and the impact of therapies on cells of the eye. Breakthrough research in cellular therapeutics, characterizing the molecular basis for a novel approach to repairing the damaged drainage system in glaucoma for a sustained period of time.

Clinical emphasis: Glaucoma surgery and Clinical emphasis: Medical and surgical management of adult and pediatric glaucoma, including glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Clinical emphasis: Glaucoma surgery and Clinical emphasis: Medical and surgical management of adult and pediatric glaucoma, including glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Clinical emphasis: Finding new, simpler, better ways to diagnose glaucoma early; finding better ways to monitor for glaucoma progression; and assessing new pharmacological and surgical ways to prevent vision loss.

Clinical emphasis: Glaucoma surgery and Clinical emphasis: Medical and surgical management of adult and pediatric glaucoma, including glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Clinical emphasis: Glaucoma surgery and Clinical emphasis: Medical and surgical management of adult and pediatric glaucoma, including glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Research emphasis: Interactions between neurons and glia that are required for the proper development and function of the nervous system, using gene chip molecular techniques.

Research emphasis: Finding new, simpler, better ways to diagnose glaucoma early; finding better ways to monitor for glaucoma progression; and assessing new pharmacological and surgical ways to prevent vision loss.

Clinical emphasis: Glaucoma surgery and Clinical emphasis: Medical and surgical management of adult and pediatric glaucoma, including glaucoma surgery and lasers, cataract surgery, and ultrasonic biomicroscopy imaging, and specialized glaucoma procedures.

Research emphasis: To improve glaucoma diagnosis and treatment through a basic understanding of glaucoma development and the impact of therapies on cells of the eye. Breakthrough research in cellular therapeutics, characterizing the molecular basis for a novel approach to repairing the damaged drainage system in glaucoma for a sustained period of time.
Exceptional First-Time NIH Research Grant Award
Dr. Hilary Beggs Investigates Causes of Eye Disease

Grants from the National Institutes of Health (NIH) have been increasingly difficult to secure, with recent government cuts - and it is almost unheard of for someone to score high enough for a research project to be funded the first time around, as Hilary Beggs has so ably done," says Interim Chair Stephen McLeod, MD. "This government funding is the lifeblood of all academic departments, and accounts for the lion's share of our research revenues."

Assistant Professor of Ophthalmology Hilary Beggs, PhD, is one of a very small number of scientists awarded a major first-time NIH Research Project Grant (R01) to support health-related research. Only 18% of new R01 applications are funded, and just 4% of investigators under 35 receive an R01 grant on their first application.

In order to be funded in this highly competitive process, the researcher must submit a comprehensive proposal showing preliminary data and the methodology of all proposed experiments over the 5-year grant proposal period. Each proposal is reviewed by peers who are experts in the field, ranked against competing proposals, and only the top proposals are funded.

Dr. Beggs received R01 support for a 5-year project on Mechanisms of Cell-Matrix Interaction and Signaling in Lens Development, using molecular, cellular, biochemical, and structural approaches to provide unique insight into the mechanisms of eye development.

Dr. Beggs joins 14 UCSF Ophthalmology faculty members who have been granted NIH funding, including 12 R01 grants. In 2004, the UCSF School of Medicine was the third-largest recipient of NIH research dollars, receiving a total of $379.9 million from all awards in the nationally competitive process, according to rankings released by the NIH.

Research to Prevent Blindness Award
Dr. Daniel Schwartz's Physician-Scientist Award

Dr. Daniel M. Schwartz, MD, has been granted a Physician-Scientist Award by Research to Prevent Blindness (RPB), which provides unrestricted funding for his innovative research. Dr. Schwartz's work has led to the development of imaging technology that promises to improve early detection of age-related macular degeneration and provide novel therapeutic strategies.

These awards allow physicians at U.S. medical institutions to devote more time to clinical eye research activities, and provide greater opportunities for specialized study with direct application to the human condition. Dr. Schwartz is one of only 28 physician scientists at 18 institutions who have received the award since it was established in 2000.

Dr. Schwartz is endeavoring, through highly collaborative research, to make rapid progress on solving early-stage age-related macular degeneration (AMD). Ongoing research forward quickly requires teams of specialists applying knowledge and skills from a variety of perspectives - medicine, engineering, and chemistry, for example.

Dr. Schwartz's current collaboration with engineers and scientists at Caltech provides hope for a breakthrough for macular degeneration, working toward the development of a novel therapy to diagnose and treat the disease early in its course, before visual loss has actually occurred.

RPB has awarded major research grants to UCSF Ophthalmology this year in support of well-established scientists and promising young faculty, as well as department-wide ophthalmic research. The world's leading voluntary organization supporting eye research, RPB provides generous unrestricted funding for vision research.

March of Dimes Award
Dr. Erik Ullian Receives O'Connor Research Award

Neurobiology researcher, Assistant Professor Erik Ullian, PhD, was awarded a prestigious Basil O'Connor Starter Scholar Research Award from the March of Dimes Birth Defects Foundation. The two-year award supports research on birth defects by young scientists embarking on independent research careers.

Dr. Ullian is studying a critical and poorly understood process that occurs during development of the visual system and nervous system; this process may be responsible for infant blindness, as well as diseases affected by nervous system development, such as autism, schizophrenia, and Alzheimer’s disease. The process of “synapse elimination” occurs during infancy and youth, when an oversupply of synapses is initially created, followed by a targeted elimination of all but the most useful synapses. A defect in this maturational process may underlie subsequent blindness or neural disorders.

Dr. Ullian and colleagues have identified two synaptic proteins that are developmentally regulated, and when these proteins are removed in a transgenic model, they have shown that the normal synaptic elimination process does not occur correctly. The investigators are now examining the detailed molecular and cellular mechanisms that make the synaptic elimination process possible, so the eye or nervous system might be protected from subsequent disease.

The Basil O'Connor Award is named after the March of Dimes' first chairman and president. Founded in 1938, the March of Dimes is a national voluntary health agency whose mission is to improve the health of babies by preventing birth defects and infant mortality, through research, community services, education, and advocacy.
Energizing the Work of Dr. Todd Margolis
Jeannik Littlefield Inspires Innovative Research

International recognition as the preeminent center for the prevention of blindness worldwide through research and teaching focused on infectious and inflammatory eye disease, the Francis I. Proctor Foundation was established in 1947 as an Organized Research Unit at UCSF.

Sometimes a significant gift comes when it is most needed and can leverage further support to make a real difference in the lives of others - the doctor, the researcher, as well as the patients for which they care. In this story of generosity, future generations and people around the world suffering from vision loss and blindness will have hope.

Generous long-time contributor to That Man May See, Mrs. Jeannik Littlefield, made a recent $1 million gift to support Todd P. Margolis, MD, PhD, Rose B. Williams Chair for Research in Corneal Disease, and director of the Francis I. Proctor Foundation for Research. Mrs. Littlefield's gift is for medical discovery in the field of infectious eye disease.

"I wanted to help a highly competent and caring doctor move his research along more quickly," said Mrs. Littlefield. "It makes me feel especially good when I hear that our gift encouraged others to contribute. That seems to be the way it works."

Eradicating Blindness Worldwide
With infectious diseases on the rise worldwide, research such as Dr. Margolis's has the potential to eradicate blindness conditions, here in the U.S. and in parts of the developing world.

Director of the Ralph and Sophie Heintz Research Laboratory, Dr. Margolis conducts research aimed at understanding the pathogenic mechanisms of infectious and inflammatory eye disease, with a focus on ocular diseases caused by the herpes viruses.

Dr. Margolis's clinical experience is in the medical and surgical management of infectious and inflammatory ocular disease. He has a particular interest in ocular disease due to the herpes viruses, and AIDS-associated ocular infections. His clinical research is aimed at understanding the pathogenic mechanisms leading to atypical presentations of ocular infections. This work dovetails closely with his laboratory research, providing valuable clinical samples and raising important questions that can be addressed at the laboratory bench.

The Proctor Foundation's mission is to combine state-of-the-art laboratory research with rigorous clinical application in the field to provide practical answers for prevention of blindness locally and worldwide.

"Thanks to Mrs. Littlefield, I have been given a remarkable opportunity," says Dr. Margolis. "Her gift provides me with the ability to accelerate my laboratory work and pursue more high-risk projects. It is our hope that the work funded by Mrs. Littlefield will ultimately improve clinical treatment and management for patients with infectious eye disease. For this I am grateful."

Recent Gifts to That Man May See for the Proctor Foundation
Other recent gifts to the Proctor Foundation, through That Man May See, include support from the Bernard Osher Foundation. The gift for John P. Whitcher, M.D., M.P.H., and Thomas M. Lietman, M.D., is for the continuing study of trachoma in the sub-Saharan desert. Bent on the ultimate elimination of this disease, the most common cause of blindness in the developing world and linked to extreme poverty and poor sanitation, this project will expand research in Ethiopia to cover districts in the northern part of the country, monitoring the treatment of over 200,000 more individuals, mostly children, in these areas. ⚡

Discovering New Ways to Treat Macular Degeneration
Bernie Newcomb Supports Revolutionary Investigators

Our goal is to discover how age-related macular degeneration (AMD) causes blindness, through improved diagnostics and understanding of the disease mechanism, in order to develop therapies that will improve vision," says AMD investigator, Associate Professor Jacques Duncan, M.D.

Thanks to a generous grant from high-technology entrepreneur Bernie Newcomb, the revolutionary research of Dr. Duncan and her colleagues, Professor of Anatomy and Ophthalmology Matthew LaVail, PhD, and Associate Professor Robert Bhisitkul, MD, PhD, is advancing new approaches to protecting the vision of patients with AMD.

"My role is to add vitality to Jacques's work in the lab through funding, and I am happy to be able to support such a dedicated researcher," says Mr. Newcomb, founder of the Internet stock-trading company E*TRADE.

With the goal of improving vision for patients with wet AMD who receive PDT (photodynamic therapy), the research of Drs. Duncan, LaVail, and Bhisitkul has shown that specific growth factors (such as BDNF or brain-derived neurotrophic factor) can restore vision as they protect cells from PDT light damage. This exciting work was published in November 2004. With generous support from Mr. Newcomb, the research was based on Dr. LaVail's ground-breaking studies showing that growth factors can protect cells from light damage. Drs. Duncan and LaVail have now studied other growth factors and the effect of repeated PDT treatments at 3-month intervals, and these results have been submitted for publication.

A new device now under evaluation by Dr. Duncan could provide more exacting diagnosis and description of AMD damage at an early stage. "Until now, irregularities of the eye have limited our ability to visualize the cells affected earliest in AMD," Dr. Duncan explains. With the adaptive optics scanning laser ophthalmoscope, invented at the U.C. Berkeley School of Optometry by Associate Professor of Vision Science Austin R. Orbo, PhD, the investigators can closely examine patient retinas to provide insight into the mechanism of vision loss among patients with diverse retinal disorders.

To improve therapy for early AMD (the dry form of AMD), the investigators have embarked on a study of the mechanisms of cholesterol metabolism in the retina. Generous funding from Mr. Newcomb supports a new project to study statin medications in a preclinical model of AMD. "We suspect that improving the efficiency of cholesterol metabolism using statin medications (such as Lipitor/Atorvastatin) will reduce the risk of vision loss due to AMD," says Dr. Duncan.

Drs. Jacques Duncan and Matthew LaVail share insights from their study of age-related macular degeneration (AMD).
Two Roads Diverged

Dr. Frederick Riedel

This interview is part of the ongoing Cordes Connection, which features UCSF Ophthalmology alumni.

When Fred Riedel, M.D., recalls his residency at UCSF Ophthalmology, he describes two paths he might have followed—orthopedic surgery and ophthalmology—“both great programs.” He talks about his gratitude for UCSF Ophthalmology faculty and clinical faculty, Wayne Cagill, M.D., Stacy Mettler, M.D., and Sam Kimura, M.D. He also counts that Man May see board member Emeritus Jim Livingston among those who have influenced his life.

But the first UCSF ophthalmologist to influence Fred’s career was ophthalmic plastic surgery pioneer Professor Crowell Beard, M.D., who met Fred in Rochester, New York, where Fred’s mother-in-law was a nurse.

“I was destined to be an orthopedic surgeon,” as Fred tells the story. Fred’s father-in-law, who was an orthopedist, was happy with his own career, and he thought it would be good for Fred to follow the same path—maybe even take over his practice one day.

The military intervened, and Fred and his young bride, Judy, found themselves in Athens, Greece. As Fred’s military service was drawing to a close, his mentor, Dr. K. Kimura, stayed in touch with Fred, urging him to consider ophthalmology.

The Riedels’ daughter, Tori, now a veterinarian, was born while they were in Greece. Their son, John, born after they returned to the U.S., is the West Coast institutional trading director for Wachovia Securities.

Fishing With Sam Kimura

“Sam was a real enthusiast,” says Fred, who recalls days of fishing with Dr. Kimura. “Sam talked about That Man May see all the time. It was as though he was able to see into the future—long before anyone else. Sam projected that State of California funding would diminish, and that we needed to be forward thinking and make a plan for philanthropy, if we wanted to make this the best place it can be, for research, teaching, and patient care.”

So, in 1973, Fred came to UCSF Ophthalmology to finish his studies as an ophthalmologist, and since graduation, he has been in private practice in Walnut Creek. “Working in this field is a real pleasure,” he says. “Every day, you do something that improves the quality of people’s lives. And, it’s intellectually challenging.”

Fred describes UCSF Ophthalmology as well positioned for clinical care, education, and research. “Our patients are very patient and understanding of the complexities of delivering health care,” Dr. Naseri says. “U CSF faculty come to the VA on a regular basis for patient care and teaching.”

Dr. Naseri says, including VA Director of Ophthalmic Clinical Pharmacology Allan Flach, M.D., PharmD; UCSF and VA Retinal Service Director Daniel Schwartz, M.D.; oculoplastic surgeon, Associate Professor Kimberly Cockerham, M.D.; and Glaucoma Service Director Professor R’obert Stamper, M.D. They work closely with 15 members of the clinical faculty, as well as two full-time staff optometrists, Bernard J. Dolan, O.D., M.S, and Andrew Mack, O.D., who also provide patient care, research, and education at the VA.

Two new ophthalmic health technicians have also been approved to join the VA department, to assist in patient measurements, screening, and data gathering.

“Dr. Eugene de Juan will be spearheading our laboratory research program,” Dr. Naseri notes, and we are very excited that he will be joining us.” (See page 1 story on Dr. de Juan.)

Dr. Naseri’s research is focused on cataract surgery and how cataract surgery is taught. His study at the Mayo Clinic of a modified technique to improve teaching of a critical step in cataract surgery (hydrodissection) is published in the British Journal of Ophthalmology. He notes, “The opportunities for patient care, research, and education are wonderful here,” says Dr. Ayman Naseri, pictured with patient Lowe Hong.
The most lasting part of my ophthalmic career has been my work as a teacher,” says Professor John Stanley, M.D., who retired this year as chief of ophthalmology at the San Francisco Veterans Administration (VA) Medical Center. “As a teacher, you must stay at the forefront of your field to seek out what will work for the future.”

“I have taught over 180 residents at UCSF, Wake Forest University, and the Cleveland Clinic, and watched them and helped them grow,” he says. Some of Dr. Stanley’s eminent students are glaucoma surgeon, UCSF Professor Jorge Alvarado, M.D.; cornea surgeon, Professor David Hwang, M.D.; cataract specialist, UCSF Clinical Professor David Chang, M.D.; retina specialist, UCSF Associate Clinical Professor Richard McDonald, M.D.; ocular oncology specialist Devron Char, M.D., director of the Tumor Foundation, which supports and performs eye tumor research; Resident Instructor Marsha Kavanagh, MD; corneal and refractive surgery specialist Daniel Hwang, MD; cataract specialist, UCSF Clinical Professor Jorge Alvarado, MD; and president of the National Coalition for Vision Health Anderson, MD; and Dalhousie University Professor Raymond Paul Leblanc, MD, who is head of ophthalmology on the faculty at Wake Forest University in Winston-Salem, North Carolina.

“John Stanley has trained two generations of ophthalmologists who have gone on themselves not only to take care of patients but also to train other ophthalmologists throughout the country,” says Director of Pediatric Ophthalmology and Resident Training Douglas Fredrick, M.D. “His impact on medical training and research has been profound.”

Implants to the Ultra-Thin Lens
When Dr. Stanley joined the UCSF faculty in 1976, intracocular lens implants were rarely used in the Bay Area. “I had done advanced cataract surgery (phacoemulsification) and intracocular lens implantation in North Carolina,” he recalls. “I further developed these techniques at the VA Hospital and at UCSF in my private practice. I taught the residents and other faculty members as well to do phacoemulsification and intracocular lens implantation.”

He was first in the Bay Area to use the posterior chamber intraocular lens implant invented by Las Vegas surgeon Steven P. Shearing, M.D. (a former UCSF resident), which dramatically changed the treatment of cataracts worldwide.

In 1984, Dr. Stanley was the first to do refractive surgery at UCSF, starting with radial keratotomy (R.K.), and proceeding to other refractive procedures and finally to laser treatment (LASIK).

Once he heard about diffractive optics developed at Lawrence Livermore Laboratories for fusion research, Dr. Stanley set to work on an ultra-thin diffractive intraocular lens that could successfully focus light for vision correction. “The technology was transferred to the corporate world, and today is the optical basis of a lens just coming to market as the Ultra Choice lens manufactured by the ThinOptX Company,” he says.

Fascinated by Ophthalmology
Dr. Stanley returned to California, where he completed a residency in ophthalmology at UCLA under Bradley Straatsma, M.D., followed by fellowships in corneal disease (Claes Dohlman, MD) and neuro-ophthalmology (David Cogan, M.D.) in Boston. His first job as a doctor was as a staff member at the Cleveland Clinic. An academic career in ophthalmology began in 1967, when he joined the faculty at Wake Forest University in Winston-Salem, North Carolina.

Honoring 20 Years of Service
Oculoplastic Surgeon Dr. Stuart Seiff

Chief of Ophthalmology at San Francisco General Hospital (SFGH) and managing a new ophthalmic medical practice, Professor Stuart R. Seiff, M.D., has been recognized by the Department of Ophthalmology for 20 years’ service on the ophthalmology faculty at UCSF. Although he retires as chief of ophthalmology this year, Dr. Seiff remains an active member of the department. “We are very grateful for Dr. Seiff’s contribution as a member of the faculty and his leadership as chief of oculoplastic surgeons for 18 years,” says Interim Chair of Ophthalmology, Professor Stephen D. McLeod, M.D.

Dr. Seiff continues to do research, including a landmark study on successful management of acute thyroid eye disease using thyroid antibodies, with UCSF Ophthalmology Fellow Larissa Dragan, M.D., recently published in Ophthalmology.

He is also involved with That Man May See in raising funds for the SFGH Mobile Eye Van that is used for the American Chinese Eye Study in Chinatown, directed by Shan Lin, M.D. Dr. Seiff is also raising funds to support construction of a Mobile Eye Van that will be managed by the Thai Royal Family in Bangkok, and will be used by UCSF Ophthalmology for research in Thailand.

Now Dr. Stanley will truly be his own boss. He and his wife Manel are moving to Gilroy, where they will enjoy their many hobbies and share more time with each other.
Richard L. Abbott, MD
Invited Lectures: Nominating Dr. D. Dall Onn to Teach Clinical Infections, Incorporating New Surgical Techniques Into Practice, An Ethical and Medico-legal Challenge, Preferred Practice Patterns in Clinical Praxis in the U.S., Philippine Academy of Ophthalmology, Manila; Improving Quality of Eye Care in China though Clinical Praxis Guidelines, Chinese National Congress, Tianjin; The U.S. Experience in Medical Management and Litigation in Refractive Surgery, Controversies in Pre-operative Prophylaxis for the Prevention of Endophthalmitis; Panamanian Ophthalmological Society, Panama City; Creating a Clinically Relevant Knowledge Base for Ophthalmologists, Council for Medical Specialty Societies, Eponyming CME Summit, Rome; Oreamn, Illinois; Evidence Based Ophthalmology and its Relation to Pay for Performance; Corporate Advisory Council, San Francisco.

Jorge A. Alvarado, MD

Hillery E. Beggs, PhD

David R. Copenhagen, PhD
Appointments: Acting Chairman, Department of Physiology, U. C. S. F. School of Medicine. Invited Lectures: N. H. S. 5-year grant to train predoctoral students and postdoctoral fellows in the biology of vision and visual diseases.

Jacque L. Duncan, MD
Awards: High-Impact Retinal Imaging in Patients with Inherited Retinal Degenerations, 5-year award, Foundation Fighting Blindness; Career Development Award, Foundation Fighting Blindness.
Invited Lectures: The Role of Light on the Rate of Retinal D egenerations, Visiting Professor, Hospital for Sick Children, Toronto, Canada.

Allan J. Flach, MD, PhD
Appointments: Senior Honor Award, American Academy of Ophthalmology; Jerome W. Bettman Award, Prevent Blindness, Northern California.

Douglas R. Freddick, MD
Honors: Chairman, Professional Education Committee, American Association for Pediatric Ophthalmology and Strabismus Credentials Committee, U. C. S. F.; Clinical Studies Steering Committee, U. C. S. F. School of Medicine.
Awards: Innovators in Education Grant, U. C. S. F. Academy of Medical Educators.

Shan C. Lin, MD
Awards: The Glaucoma Foundation Clinician-Scientist Award; American Academy of Ophthalmology Achievement Award.

Todd R. Margolis, MD, PhD

Stuart R. Seiff, MD
Invited Lectures: California Society of Plastic Surgery; Special Faculty, Hawaiian Ophthalmological Society/Visiting Professor, Ophthalmology Grand Rounds, University of Medicine and Dentistry of New Jersey.

Erick M. Ullian, PhD

Farewell to a Visionary
Remembering Dr. Steven Kramer, Former UCSF Ophthalmology Chair
T

E visionary chair of the Department of Ophthalmology for 27 years, Steven G. Kramer, MD, PhD, former professor and T. hensia M. and Wayne M. C. Carl, MD Chair in Ophthalmology, died at his home from complications of diabetes on December 24, 2005. He was 64.

Dr. Kramer joined the UCSF Ophthalmology faculty in 1973. Two years later, at the age of 36, he was appointed the youngest-ever chair of the department, succeeding M. chael O. ghan, MD.

In 2002, Dr. Kramer celebrated his retirement, leaving an unprecedented legacy for ophthalmology at UCSF and worldwide.

Dr. Kramer was a thoughtful leader whose skill as a fundraiser inspired that M. M. M. M. See to successfully complete a building campaign that created the Koret Vision Research Laboratory and the Beckman Vision Center, site-of-the-art research and clinical facilities on the UCSF Panorama campus.

Dr. Kramer’s leadership attracted the foremost leaders of Ophthalmology to UCSF, expanding the department from 6 full-time faculty members to 30 world-renowned educators, clinicians, and researchers, all dedicated to seeking cures for blindness and loss of sight. The proximity of these scientists under one roof has fostered major discoveries and unprecedented collaborations, resulting in medical breakthroughs and innovative devices to save sight and lives.

His passion for teaching resulted in a first-rate, competitive residency program, influencing the future of eye care.

Dr. Kramer’s greatest pride was his family. He is survived by his wife, Susan Garrett; his children, Janice, Kenneth, Daniel, Susan, Ryan, and Molly; and five grandchildren. He is also survived by Bernadette Kramer, who continues to work closely with That Man May See in fundraising efforts.

The family requests that donations in honor of Dr. Kramer be made to That Man May See (TMM) at 1 Kort Way, Box 0352, Santa Clara, CA 95043-0352; phone: 415.476.4016; or e-mail: tmms@vision.ucsf.edu.
New Directions in Ocular Therapies

U.C.S.F. 2005 December Course

Internationally renowned investigators – including Susan H. Day, M.D., president of the American Academy of Ophthalmology and ophthalmology chair at California Pacific Medical Center, as well as members of the U.C.S.F. ophthalmology faculty – updated practicing ophthalmologists on advances in oculare therapy at a unique educational forum presented by the department in San Francisco each December.

R. Obert R. Itch, M.D., chief of glaucoma service at New York Eye and Ear Infirmary, delivered the Proctor Lecture, speaking on exfoliation syndrome, which has only recently been recognized as the most common identifiable form of glaucoma.

New insights, said Dr. R. Itch, have increased the importance of accurate diagnosis of this age-related type of glaucoma, which causes severe optic nerve damage and an increased risk of postdilation IOP (intraocular pressure).

Guest speakers also included Lee Jampol, M.D., professor and chairman of ophthalmology, Northern California University; Kuldip Singh, M.D., M.P.H., associate professor of ophthalmology; Stanford University School of Medicine; and Mark A. Terry, M.D., director of corneal services, Devers Eye Institute, Portland.

"This was a cutting-edge meeting," says Associate Professor Daniel Schwartz, M.D., who chaired the program with Professor R. Obert Stammer, M.D., and Professor and Interim Chair of Ophthalmology Stephen D. M. Lied, M.D.

THANK YOU
T hanks to the following donors for educational grants in support of the December Course program:

A. Iocon, Allergan, Santen, Genentech, Novartis
Ophthalmics, Pfizer, Bausch & Lomb, Heidelberg Engineering, M erck, Carl Zeiss Meditec, Genentech, Novartis, Allergan, Santen, Bausch & Lomb, Heidelberg Engineering, Merck, Carl Zeiss Meditec, Genentech, Novartis, Allergan, Santen.

The following U.C.S.F. faculty made presentations at the U.C.S.F. December Course, Ophthalmology 2005: New Directions in Ocular Therapies:

Jorge Alvarado, M.D.
David Chang, M.D.
Kimberly Cockerham, M.D.
Jacque Duncan, M.D.
Allan Flach, M.D., PharmD
Douglas Fredrick, M.D.
Jonathan Horton, M.D., Ph.D.
David Hwang, M.D.
Alexander Irvine, M.D
Thomas Lietman, M.D.
Theresa M. O’Brien, M.D.
Shane Lin, M.D.
Stephen M. O’Leed, M.D.
Jacques M. O’Brien, M.D.
Stuart Seiff, M.D.


Robert L. Stammer, M.D.
Point-C Counterpoint in Ophthalmics. T he Expert Debate: Spotlight on Ophthalmic Technology – An Anerican Revolution: A New and Improved?

John A. Stanley, M.D.

John P. Whiticker, M.D., MPH

2006: New Directions in Ocular Therapies

U.C.S.F. 2005 December Course

International renowned investigators – including Susan H. Day, M.D., president of the American Academy of Ophthalmology and ophthalmology chair at California Pacific Medical Center, as well as members of the U.C.S.F. ophthalmology faculty – updated practicing ophthalmologists on advances in oculare therapy at a unique educational forum presented by the department in San Francisco each December.

R. Obert R. Itch, M.D., chief of glaucoma service at New York Eye and Ear Infirmary, delivered the Proctor Lecture, speaking on exfoliation syndrome, which has only recently been recognized as the most common identifiable form of glaucoma.

New insights, said Dr. R. Itch, have increased the importance of accurate diagnosis of this age-related type of glaucoma, which causes severe optic nerve damage and an increased risk of postdilation IOP (intraocular pressure).

Guest speakers also included Lee Jampol, M.D., professor and chairman of ophthalmology, Northern California University; Kuldip Singh, M.D., M.P.H., associate professor of ophthalmology, Stanford University School of Medicine; and Mark A. Terry, M.D., director of corneal services, Devers Eye Institute, Portland.

"This was a cutting-edge meeting," says Associate Professor Daniel Schwartz, M.D., who chaired the program with Professor R. Obert Stammer, M.D., and Professor and Interim Chair of Ophthalmology Stephen D. M. Lied, M.D.

THANK YOU
Thanks to the following donors for educational grants in support of the December Course program:

A. Iocon, Allergan, Santen, Genentech, Novartis
Ophthalmics, Pfizer, Bausch & Lomb, Heidelberg Engineering, Merck, Carl Zeiss Meditec, Genentech, Novartis, Allergan, Santen.

The following U.C.S.F. faculty made presentations at the U.C.S.F. December Course, Ophthalmology 2005: New Directions in Ocular Therapies:

Jorge Alvarado, M.D.
David Chang, M.D.
Kimberly Cockerham, M.D.
Jacque Duncan, M.D.
Allan Flach, M.D., PharmD
Douglas Fredrick, M.D.
Jonathan Horton, M.D., Ph.D.
David Hwang, M.D.
Alexander Irvine, M.D
Thomas Lietman, M.D.
Shane Lin, M.D.
Stephen M. O’Leed, M.D.
Jacques M. O’Brien, M.D.
Stuart Seiff, M.D.


Robert L. Stammer, M.D.
Point-C Counterpoint in Ophthalmics. T he Expert Debate: Spotlight on Ophthalmic Technology – An Anerican Revolution: A New and Improved?}

John A. Stanley, M.D.

John P. Whiticker, M.D., MPH

2006: New Directions in Ocular Therapies

U.C.S.F. 2005 December Course

International renowned investigators – including Susan H. Day, M.D., president of the American Academy of Ophthalmology and ophthalmology chair at California Pacific Medical Center, as well as members of the U.C.S.F. ophthalmology faculty – updated practicing ophthalmologists on advances in oculare therapy at a unique educational forum presented by the department in San Francisco each December.

R. Obert R. Itch, M.D., chief of glaucoma service at New York Eye and Ear Infirmary, delivered the Proctor Lecture, speaking on exfoliation syndrome, which has only recently been recognized as the most common identifiable form of glaucoma.

New insights, said Dr. R. Itch, have increased the importance of accurate diagnosis of this age-related type of glaucoma, which causes severe optic nerve damage and an increased risk of postdilation IOP (intraocular pressure).

Guest speakers also included Lee Jampol, M.D., professor and chairman of ophthalmology, Northern California University; Kuldip Singh, M.D., M.P.H., associate professor of ophthalmology, Stanford University School of Medicine; and Mark A. Terry, M.D., director of corneal services, Devers Eye Institute, Portland.

"This was a cutting-edge meeting," says Associate Professor Daniel Schwartz, M.D., who chaired the program with Professor R. Obert Stammer, M.D., and Professor and Interim Chair of Ophthalmology Stephen D. M. Lied, M.D.

THANK YOU
Thanks to the following donors for educational grants in support of the December Course program:

A. Iocon, Allergan, Santen, Genentech, Novartis
Ophthalmics, Pfizer, Bausch & Lomb, Heidelberg Engineering, Merck, Carl Zeiss Meditec, Genentech, Novartis, Allergan, Santen.

The following U.C.S.F. faculty made presentations at the U.C.S.F. December Course, Ophthalmology 2005: New Directions in Ocular Therapies:

Jorge Alvarado, M.D.
David Chang, M.D.
Kimberly Cockerham, M.D.
Jacque Duncan, M.D.
Allan Flach, M.D., PharmD
Douglas Fredrick, M.D.
Jonathan Horton, M.D., Ph.D.
David Hwang, M.D.
Alexander Irvine, M.D
Thomas Lietman, M.D.
Shane Lin, M.D.
Stephen M. O’Leed, M.D.
Jacques M. O’Brien, M.D.
Stuart Seiff, M.D.


Robert L. Stammer, M.D.
Point-C Counterpoint in Ophthalmics. T he Expert Debate: Spotlight on Ophthalmic Technology – An Anerican Revolution: A New and Improved?}

John A. Stanley, M.D.

John P. Whiticker, M.D., MPH
VISION Optical Opens in Millberry Union
State-of-the-Art Exams, Contacts, and Glasses
Fashion eyewear from M archon, Coach, Calvin Klein, and more; Progressive no-line bifocals in a variety of materials including Transitions; Custom-fitted gas-permeable and soft contact lenses, with the newest technology in designs and materials to accommodate challenging visual needs.

The new VISION Optical dispensary in Millberry Union offers comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

With a large variety of in-stock fashion frames, sunglasses, and contact lenses, opticians will share the latest information on lenses and frames, and recommend the best vision solutions. A knowledgeable full-service staff will be available if adjustments or repairs are needed.

“It is so rewarding to help people see better,” says optometrist Kelvin K. Tang, OD, FAAO, who directs the new, state-of-the-art dispensary. “Our goal is to consider all the options so we can evaluate a patient’s visual needs, correct for refractive error, and provide patients with the greatest comfort.” Dr. Tang adds: “It is incredible to have so many state-of-the-art diagnostic instrumentation. VISION Optical will be a paperless office, keeping all medical records electronically so they can be easily accessed at a later time.

Dr. Tang’s research will focus on evaluating the next-generation contact lens designs, materials and cleaning solutions. He recently completed a one-year clinical fellowship at Jules Stein Eye Institute at the Geffen School of Medicine at UCLA, where he studied how to fit complicated contact lenses.

VISION Optical will provide contact lenses with the newest materials and designs for different visual requirements and a full range of multifocal gas-permeable and soft lenses, contacts for astigmatism, color contacts, and custom lenses will be available.

Teaching Tomorrow’s Eye Care Providers
At UCSF, Dr. Tang joins the optometry team of Salena Lee, OD, FAAO, and R. Olland Jung, OD. “I wanted to be in an academic institution where I could see patients, educate tomorrow’s optometrists, opticians, and ophthalmologists, and do research,” says Dr. Tang.

As part of their training, Dr. Tang will teach optometric interns and ophthalmology residents advanced refractive techniques, and how contact lenses work. The examination facilities are designed for patient comfort, with the latest diagnostic instrumentation. VISION Optical will be a paperless office, keeping all medical records electronically so they can be easily accessed at a later time.

Dr. Tang received his undergraduate degree at UCLA, and his doctor of optometry degree at Pacific University College of Optometry in Forest Grove, Oregon. He has worked in Walnut Creek, and is engaged to John Muir Medical Center diettian Kylie S. Smith, MS, R.D. They will be married in August in California’s wine country.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

Ossama R. Hassanein is also a co-founding investor of BDNA Corp, and NetCentrex. He is the founder of Highwave Technologies in France and High Deal in France. Dr. Hassanein is also a co-founding investor and current or former board member of several companies including Convis Corporation, Broadwing Corporation, BDNA Corp, and NetCentrex.

Prior to founding ACC, he was a venture capitalist and executive vice president of Northern Telecom. Hassanein was also a co-founding investor and current or former board member of several companies including Convis Corporation, Broadwing Corporation, BDNA Corp, and NetCentrex.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

Vision optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.

VISION Optical provides comprehensive eye examinations, and the best options for clear, comfortable vision for children and adults.

Prior to his arrival in San Francisco, Mr. Glotzer was the founder and publisher of M ulch Press, an independent publishing company based in New York and Northampton, Massachusetts. He and his wife Charlotte M eyer live in the East Bay.
When Terry Caigill and Pearl K. Kimura go to lunch, they make things happen. Recently, the two met to celebrate their mutual birthdays, and, while toasting many productive years and happy memories with UCSF Ophthalmology and That Man M. May See (TMMS), the two women decided it was time to initiate a campaign for a chair to honor the retirement of Creig S. Hoyt, M.D., who has served as chairman of the ophthalmology department for the past three years, following a distinguished career at UCSF.

Mrs. Caigill and Mrs. Kimura seeded the campaign with their own major gifts as challenge funds. Then they put a plan in motion to gather the rest of the $500,000 needed to name the Deborah Hoyt and Creig S. Hoyt, M.D. Chair. Soon afterwards, Mrs. Kimura encountered TMMS benefactor Bernie Newcomb. On the spot, she asked him to participate with a lead gift of his own. He said “yes,” and the ball was rolling.

Other lead funders came forward with gifts from Tom, Jan, Tommie, and Christopher Bird; and from the Stephen S. and Paula K. Smith Family Foundation. Many others responded to the challenge: colleagues, grateful patients, and friends. On the evening of April 26, following the quarterly board meeting of That Man M. May See, ophthalmology faculty and friends presented Dr. Hoyt and his wife, Debbie, with the chair at a surprise dinner.

The chair honoring Creig had to be a surprise,” said Stephen M. Claeed, M.D., interim chair of UCSF Ophthalmology. “Creig’s modesty would never have allowed us to tell him about the event, nor the chair, in advance of the occasion. “We had to be surreptitious as well as speedy, or he would have caught on and left town, rather than be feted and praised for his work,” explained Dr. M. Claeed.

Soon into his chairmanship of the department, Dr. Hoyt announced an ambitious array of projects to expand the department’s excellence in research, teaching, and patient care. These included new faculty positions, an ambitious array of projects to expand the department’s excellence in research, teaching, and patient care. These included new faculty positions, an ambitious array of projects to expand the department’s excellence in research, teaching, and patient care.

Formerly the Jean Kelly Stock Distinguished Professor and holder of the Terry and E. Wayne M. Cagigal, M.D. Chair in Ophthalmology, Dr. Hoyt has served as UCSF’s resident, researcher, professor, physical, and residencies. Professor Dr. Hoyt is a graduate of Amherst College and Cornell University School of Medicine. He trained as a resident in ophthalmology, plastic surgery, and Cornell University School of Medicine. He trained as a resident in ophthalmology, plastic surgery, and Cornell University School of Medicine.

As a tribute to Dr. Hoyt, Gavin Newsom, mayor of the City and County of San Francisco, proclaimed April 26, 2006, as Dr. Hoyt’s Day. Throughout his career, Dr. Hoyt has served UCSF as resident, researcher, professor, physical, and residencies. Professor Dr. Hoyt is a graduate of Amherst College and Cornell University School of Medicine. He trained as a resident in ophthalmology, plastic surgery, and Cornell University School of Medicine.

With his British colleague David Taylor, M.D., FRCS, FRCP, Dr. Hoyt has produced a uniquely comprehensive reference on pediatric ophthalmology, Pediatric Ophthalmology and Strabismus (3rd edition). The 1300-page text, a comprehensive array of information from leading international experts featuring state-of-the-art research and procedures, is an entirely revised edition that will be a staple in the field. He has co-authored a classic textbook on strabismus management with his longtime colleague William V. Good, M.D., Dr. Hoyt’s major research interest is the development of the visual cortex. He has been a leader in the study of the critical period during infancy. His work has been critical in the field of pediatric ophthalmology.

As a tribute to Dr. Hoyt, Gavin Newsom, mayor of the City and County of San Francisco, proclaimed April 26, 2006, as Dr. Hoyt’s Day. Throughout his career, Dr. Hoyt has served UCSF as resident, researcher, professor, physical, and residencies. Professor Dr. Hoyt is a graduate of Amherst College and Cornell University School of Medicine. He trained as a resident in ophthalmology, plastic surgery, and Cornell University School of Medicine.

For information about how to participate in the Deborah Hoyt and Creig S. Hoyt, M.D. Chair, please contact Kathleen R. yar at That Man M. May See, at 415.476.4016.

**Landmark Infant Cataract Study**

O n e of Dr. Hoyt’s outstanding contributions to the field was his pioneering study demonstrating that infants with congenital cataracts can achieve good vision throughout their lives if they have corrective surgery soon after birth. The motivation for this bold approach came from the brain development research of neurobiologist David W. Hubel, M.D., and Torsten N. Wiesel, M.D., whose work was recognized by the 1981 Nobel Prize, which showed that the visual cortex remains plastic for a critical period during infancy.

Dr. Hoyt is the first non-British editor of the British Journal of Ophthalmology. In 2002, he was one of only a few Americans ever invited to present the Doyle Monor Encum Lecture to the Oxford Ophthalmology Congress.

With his British colleague David Taylor, M.D., FR CS, FR CP, FR CO (ophth), DScMed, Dr. Hoyt has produced a uniquely comprehensive reference on pediatric ophthalmology, Pediatric Ophthalmology and Strabismus (3rd edition). The 1300-page text, a comprehensive array of information from leading international experts featuring state-of-the-art research and procedures, is an entirely revised edition that will be a staple in the field. He has co-authored a classic textbook on strabismus management with his longtime colleague William V. Good, M.D.

Whatever Dr. Hoyt takes on, he does it with gusto, whether it be bicycling, kayaking, racing, reading great books, listening to classical music, or weaving Nai’a rugs. Not by Dr. Hoyt at his most honorable achievement is the mentoring of students as the future ophthalmic leaders of the profession.

As a tribute to Dr. Hoyt, Gavin Newsom, mayor of the City and County of San Francisco, proclaimed April 26, 2006, as Dr. Hoyt’s Day. Throughout his career, Dr. Hoyt has served UCSF as resident, researcher, professor, physical, and residencies. Professor Dr. Hoyt is a graduate of Amherst College and Cornell University School of Medicine. He trained as a resident in ophthalmology, plastic surgery, and Cornell University School of Medicine.

For information about how to participate in the Deborah Hoyt and Creig S. Hoyt, M.D. Chair, please contact Kathleen R. yar at That Man M. May See, at 415.476.4016.
Honor Roll of Generous Contributors

Thank you for your support of vision research, teaching, and patient care received between October 5, 2005, and July 18, 2006.

Distinguished Contributors ($500,000.00 +)

M. Jeanne M. L. Littledale Shirley K. Rice

Benefactors ($250,000.00 +)

Alexander Family Trust

The Linco Family Endowment

Honorarium Patrons ($20,000.00 +)

F Robbie Flanders

Visionaries ($100,000.00 +)

Alcon Research Laboratories, Inc.

Allergan Pharmaceuticals

Theresa R. Cagley

Richard H. Chard of Eye Research Foundation

The Thomas J. Long Foundation

Donald and Judy McCollum

Bernard A. Newcombe Foundation at Peninsula Community Foundation

The Barnard O. Foundation

The John and Lop Pitzer Family Fund

Entrepreneurs ($50,000.00 +)

Alcon Laboratories, Inc.

David Butler and Kelly Pope

Jeanne C.Copeland

Edmund and Jeanne Littledale Foundation

Mr. and Mrs. Charles D. Miller

The Sanders Family Supporting Foundation

Investors ($25,000.00 +)

Anonymous

Tom, Jan, Tommie S. Christopher Bird

Hellman Family Philanthropic Fund

Pamela T. Kimmons

Dr. Thomas and Myrielle Harring

Stephen S. and Paula A. Smith Family Foundation

Joan and David Tr始iel

Director's Council ($10,000.00 +)

Anonymous

The Bellini Foundation

Daniel and Jeanne Benatar

M. C. and Mr. Dennis G. Cook

Eyetech Foundation

Her Family Foundation

The Joan Kelby Foundation, Inc.

M. H. and Mrs. James P. L. Robinson

Mr. T. Mathis Foundation, Corporation Foundation Inc.

H. Elston

Mr. W. and Mrs. Gaye F. Miller

David and Marilyn Pratt

Robert and Kate M. Sheahan Family Foundation

James and Sanford Robertson Fund

Mr. T. Robinson Foundation

Mr. H. and Laurence C. Spillers

Travis G. and Joan Stemmer-Turner

John P. Stock

W. Scott Thomas

Luminaries ($5,000.00 +)

Sylvia and B. Bratke

Breideh Suzen and Bruce Crockett

The de Regniers Foundation

Janet and Bill Droznowski

Mark Feldberg and Emily Jane Page

Ann and Charlie Golden

Susan and Robert Green

Charles H. Homer

Jean-Claude Kamins

Kendall Foundation

Chung-Moon Lee Foundation

M. and Mr. N. Roberts

Marjorie L. O'Brien

Mr. Timothy and Merle Olsen

Walter and Jay P. Patton

Pakay Family Foundation

Frank and Carol Porat

Saffron and Sons Fund

Mr. and Mrs. Aline and David Shulak

Slifer Family Foundation

Eric Zarikian and Patricia Kaufmann

Susan Carter, M.D. and Mario A. Zarino, M.D.

PhD

New TMMS Staff Assisting Donors

Veronica Masterson and Danielle Pickett

Mc is among the newest members of the staff – Director of Individual Gifts.Veronica Masterson, and Development Assistant Danielle Pickett – focused on assisting donors to That Man May See, the support foundation for UCSF Ophthalmology.

“That Man May See is expanding its vision, to be better able to serve the aspirations of our faculty and the needs of our contributors,” says Kathleen R. yd, president of TMMS. “We welcome two highly regarded professionals who can help increase support to make medical breakthroughs possible.”

Veronica J. B. D. Masterson, who works with individual donors to TMMS, is experienced in both the business world and the nonprofit sector. She provides information and recognition for members of the Chairman’s Forum for Innovation, founded in 2004 to acknowledge donors of $1000 and above. She helps generate gifts accelerate research, advance education, and ensure high-quality vision care, including targeted contributions and unrestricted gifts that provide the greatest latitude in enhancing vision discoveries.

As vice president and managing director of marketing and investor relations for the $2 billion company Hamilton Financial Corporation, Veronica helped take the corporation public. When she became a parent, she rededicated herself to nonprofit work, helping to raise funds and chart new dimensions for Bay Area organizations. She then earned a new, award-winning fellowship for the Junior League, and also served as development chair for the San Francisco School and for the San Francisco Shakespeare Festival. Early in her career, she worked in development for Choate Rosemary Hall, and several nonprofits in San Francisco and New York. Her experience covers annual campaigns, fundraising events, and strategic planning from the ground up.

Veronica did graduate work at New York University and holds a BA from Wesleyan University in Connecticut. She says that her initiation into the health care field was as a candy stripe at the age of 13.

Veronica and her 10-year-old daughter live in San Francisco. In the early mornings, you might find Veronica at Lake Merced, where she rows crew with the San Francisco Rowing Club.

“I am honored and proud to be part of this effort supporting the dedicated professionals at UCSF Ophthalmology,” Veronica Masterson says. “Their research and care have a tremendous impact around the world.”

Danielle A. Pickett may be the first voice you hear at TMMS, as she monitors the reception desk, manages the database, and provides support for TMMS and its contributors. Originally from Massachusetts, Danielle worked as a public school teacher in Brooklyn before moving to San Francisco. She joined the TMMS staff to utilize her strong administrative skills in an environment where she could help effect positive change.

Danielle holds a master’s degree from the City College of New York in English as a Second Language, and earned a BA at New York University. Her boyfriend, Will Schachtler, is also at UCSF, as a PhD student in immunology.

“I have relatives with macular degeneration,” says Danielle Pickett. “That is one of my motivations for this work, to support the search for a cure for eye disease.”

Please join us in welcoming Veronica Masterson and Danielle Pickett to the TMMS team. They look forward to meeting you and helping achieve your goals to further research and work for vision care.

Veronica Masterson and Danielle Pickett
When Terry Caygill and Pearl Kimura go to lunch, they make things happen. Recently, the two met to celebrate their mutual birthdays, and, while toasting many productive years and happy memories with UCSF Ophthalmology and That Man May See, the two women decided it was time to initiate a campaign for a chair to honor the retirement of Creig S. Hoyt, MD, who has served as chairman of the ophthalmology department for the past three years, following a distinguished career at UCSF.

Mrs. Caygill and Mrs. Kimura seeded the campaign with their own major gifts as challenge funds. Then they put a plan in motion to gather the rest of the $500,000 needed to name the Deborah Hoyt and Creig S. Hoyt, MD Chair. Soon afterwards, Mrs. Kimura encountered TMMS benefactor Bernie Newcomb. On the spot, she asked him to participate with SIGHTINGS

Dr. Stephen McLeod, interim chair of ophthalmology, with guest speaker for the annual Transamerica Lecture, Anthony More from Moorfields Eye Hospital and Institute of Ophthalmology, University College London, and his wife, Julia More.

Bee Mullen and Dr. Raymond Mullen at the Open House. Frannie is on the board and executive committee of That Man May See.

Marianne and John Fulton join Dr. Shiu Kwok and Dr. Todd Margolis at the Open House.

That Man May See board chair Marilyn Pratt welcomes guests to the Open House, where laboratories were on view and faculty gladly shared their latest research with members of the Chairman’s Forum and special guests.