VISIONS

Koret Vision Institute + Beckman Vision Center + Department of Ophthalmology + Francis I. Proctor Foundation **Summer 2016** University of California, San Francisco + That Man May See

Focal Point

Dear Friends,

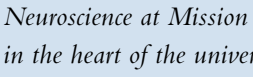
Welcome to a new day for the Department of Ophthalmology and the Proctor Foundation at UCSF. We are pleased that generous contributors are helping us build and launch our new UCSF Center for Vision Neuroscience at Mission Bay, in the heart of the university's leading neuroscience community.

We are proud of our vision for the future and programs underway. UCSF's ophthalmology residencies continue to attract and develop tomorrow's leaders. Three of our stellar residents have been awarded prestigious Heed Fellowships.

Our diverse programs to reduce the burdens of blindness and vision loss make an impact worldwide. Here at home, we hope children receiving free glasses through That Man May See's Augie Fund will bring a smile to you.

Thank you for your continued generosity. There is yet more to be accomplished as we develop the premiere vision research, teaching, and clinical care program in the world, and we invite you to join our community and our cause.

Sincerely,



Stephen D. McLeod, MD
Theresa M. and Wayne M. Caygill, MD, Distinguished Professor and Chair

UCSF treatment allowed Ryan Wullschleger to recover most of his vision.

Uveitis Solutions

Recovery Means Independence

Remember being eighteen? Ryan Wullschleger was enjoying independence as a freshman at Humboldt State, competing in swimming and exploring possible majors. During his spring semester, however, he suddenly experienced aching, acute weakness, and then vision loss. A rare autoimmune syndrome was impairing Ryan's body, leading to near-blindness within weeks. "Student health services and the local ophthalmologist were coming up empty, and I was going blind," Ryan remembers.

Tenacity and Expertise

An internist finally diagnosed his autoimmune syndrome and referred Ryan to UCSF's Francis I. Proctor Foundation for

Continued on page 4

National Honors

Three Win Heed Fellowships

The most prestigious ophthalmology fellowship foundation in the country has again chosen graduates of the UCSF Ophthalmology residency program. **Christopher Aderman, MD; Ferhina Ali, MD, MPH;** and **Sarah DeParis, MD** – the majority of the class of 2016 – were selected for the awards, which support postgraduate training.

Drs. Aderman and Ali will specialize in vitreoretinal surgery at Wills Eye Hospital, Thomas Jefferson University. Dr. DeParis will pursue oculoplastic surgery at Wilmer Eye Institute, Johns Hopkins University.

These UCSF residents took three of the 20 fellowships awarded nationwide, rising to the top in a pool of 450 applicants. This year's awards bring to 17 the number of UCSF Ophthalmology residents honored with Heed Fellowships since 2009. The high caliber of applicants admitted to residencies and faculty commitment to training future leaders in ophthalmology both play roles in these outstanding achievements. ●

From left: Honorees Dr. Aderman, Dr. Ali, and Dr. DeParis

A PEEK INSIDE:

It's A New

UCSF Center for Vision

We stand on the threshold of a new day in vision research and care. UCSF Ophthalmology has a decades-long history of transforming vision care and research with innovations that have shaped the field, from fundamental discoveries in visual perception to the development of modern cataract surgery implants.

Now, a state-of-the-art UCSF Center for Vision Neuroscience at Mission Bay will provide patients with the most advanced, multidisciplinary, coordinated care; accelerate research to save and restore sight; and train the brightest minds as leaders for the future. The new home for UCSF Ophthalmology brings together clinicians and scientists from all vision and neuroscience subspecialties.

> "We've supported That Man May See and UCSF vision scientists for more than 40 years, and making them beneficiaries of our estate is a wonderful and unique opportunity."
>
> – Dr. and Mrs. Stacy R. Mettier Jr.

The Center will unite, under one roof, specialists across multiple disciplines in complex eye care, including faculty in the Department of Ophthalmology and the Francis I. Proctor Foundation for Research in Ophthalmology.

> "The partnership between the Larry L. Hillblom Foundation and UCSF Ophthalmology advances research collaboration, bringing hope to those suffering from chronic and degenerative diseases associated with aging, with a primary focus on brain and vision disorders."
>
> – Peter J. Donnici
> President, Larry L. Hillblom Foundation

Great Neighbors Collaborate

This extraordinary initiative marks the beginning of a new era for vision science at UCSF – and for eye care and research worldwide. UCSF researchers, health care professionals, and educational enterprise will collaborate to better understand the brain and nervous system – and the eye – to improve our care of vision patients and train the next generation of clinicians and researchers.

The new clinics will be on the waterfront side of Third Street, directly across from the UCSF Medical Center at Mission Bay. Laboratory researchers also will move to the Mission Bay campus, in close proximity to a wealth of partners for collaborative neuroscience research.

We Thank Our Campaign Donors

Our goal is in sight, thanks to visionary campaign leaders who inspire us with their extraordinary gifts and commitment to the finest quality care, research, and education.

Distinguished Anchor Contributor ($70,000,000)
Anonymous

Longevity Leaders ($5,000,000+)
Estate of Theresa M. Caygill
Estate of Ruth Lee and Phillips Thygeson

Visionary Leaders ($2,000,000+)
Koret Foundation
Research to Prevent Blindness

Distinguished Contributors ($1,000,000+)
Paul G. Allen Family Foundation
Genentech, Inc.
Claire Giannini Fund
Larry L. Hillblom Foundation, Inc.
Estate of Thomas B. Inglis Jr.
Dr. and Mrs. Stacy R. Mettier Jr.
Joan and David Traitel

Benefactors ($500,000+)
Estate of Lillian V. Balzarini
Fortisure Foundation
Foundation Fighting Blindness
The Herbst Foundation, Inc.
Andrew and Cecilia Yau
E. Matilda Ziegler Foundation for the Blind

Honored Patrons ($250,000+)
Aerie Pharmaceuticals, Inc.
Dale and Margaret Burns Ames
Estate of Harvey A. Birsner, MD
BrightFocus Foundation
William H. and Sonja A. Davidow Hellman Foundation
Don and Judy McCubbin
Muscular Dystrophy Association
The Peierls Foundation, Inc.
Ronald and Anita Wornick

Visionaries ($100,000+)
American Glaucoma Society
Mary and Phil Anderson
HEDCO Foundation
Huang Pacific Foundation
Juvenile Diabetes Research Foundation
The Esther A. & Joseph Klingenstein Fund, Inc.
Knights Templar Eye Foundation
Estate of Thomas R. Laughery
Dr. Thomas and Mrs. Yvonne Mazzocco
Norby Anderson
Estate of Pauline L. Pizante Haddad
Lisa and John Pritzker Family Fund
The Frank and Denise Quattrone Foundation: Denise Foderaro and Frank Quattrone, Trustees
Chuck Robel
Venetta and John Rohal
Sandler Foundation
The Schreck Family
Stephen and Paula Smith
Bob and Naomi Stamper

Entrepreneurs ($50,000+)
Anonymous (2)
Gerson P. Bakar and Barbara Bass Bakar
Thomas and Johanna Baruch
Daniel Benatar
Loretta Emerzian
Carl M. Kawaja
Kawaja Family
The Kimball Foundation
Karl Kirchgessner Foundation
Mrs. James P. Livingston
New World Medical, Inc.
Lynn M. Pasternak
Jeanne and Sanford Robertson
Second Sight Medical Products, Inc.
The Tumori Foundation

Investors ($25,000+)
Anonymous
ALS Association
Association for Research in Vision & Ophthalmology
BNY Mellon Wealth Management
California Foundation for Molecular Biology
California HealthCare Foundation, Oakland, California
Chizen Family Foundation
Jack and Betty Demetree Family Foundation
Diopsys
Margaret R. Duflock
Françoise G. Fleishhacker
Donald and Roslyn Kahn
Love Family Charitable Trust
Ivan, Maris, and Harry Meyerson
North American Neuro-Ophthalmology Society
Richard and Candace Olsen
Lisle and Roslyn Payne
JaMel and Tom Perkins Family Foundation Fund
David and Bobbie Pratt
Samuel T. Reeves
Arthur and Toni Rembe Rock
Kathleen L. Rydar
The David and Elva Sinai Foundation, Inc.
Sue and Laurence Spitters
John and Peggy Stock
Godfrey R. Sullivan

We also wish to thank our many additional contributors for their essential role in the campaign. All will be recognized in the future.

Day
Neuroscience at Mission Bay

> We want to make a lasting impact regarding sight for all, with a gift that honors a great chairman of Ophthalmology and surgeon, Dr. Stephen D. McLeod."
>
> – David and Joan Traitel

What Your Gifts Make Possible

Generous campaign support makes possible four essential components:

Capital Construction	Designs and builds state-of-the-art vision clinics and eye/brain research facilities at Mission Bay.
Research and Equipment	Provides clinician researchers and basic scientists with leading edge tools to advance discovery and diagnostics.
Opportunities Fund	Responds rapidly to needs that are great, especially peer-reviewed innovative research for new avenues of thought.
Endowment	Strengthens financial viability for the long term, honoring donors as well as faculty at one of the world's leading eye institutes.

> The Thygeson Family is tremendously pleased to fund two distinguished professorships in honor of Elizabeth Proctor and our beloved Grandparents, and to support the continuation of their life's work at the Proctor Foundation, with its ongoing mission to prevent and cure infectious eye disease."
>
> – Marcus Thygeson

Funding in Sight

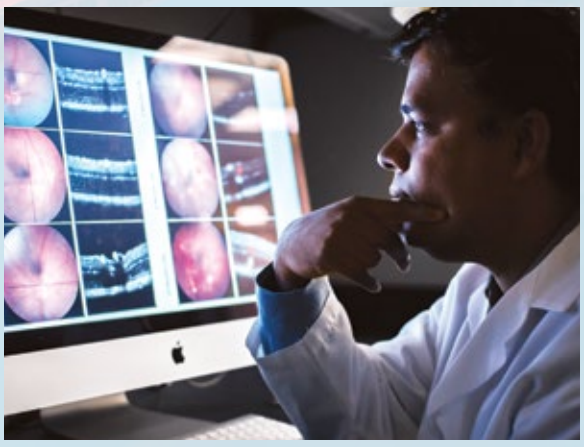
The unprecedented $70 million pledge from an anonymous donor launched our campaign toward a total program goal of $150 million. Thanks to our generous donors, we have made great progress toward our goal, and the Center is planned to open in 2019. Yet, there is more to be done! We invite you to join us.

To learn more about the campaign, please contact That Man May See President Kathleen Rydar at 415.476.4016, kathleen.rydar@ucsf.edu, or www.thatmanmaysee.org

Research to Prevent Blindness Awards

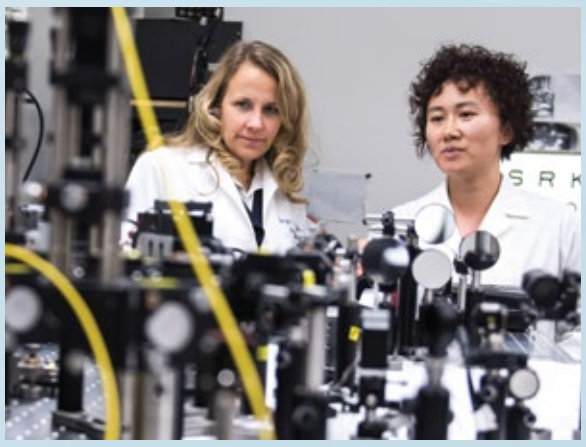
This year, seven USCF scientists received Research to Prevent Blindness awards for important initiatives, continuing the UCSF track record of recognition for excellence. The Department of Ophthalmology is grateful for its share of these competitive awards over the years – $7.3 million since 1998.

Research to Prevent Blindness provides major research funding, fueling disease-oriented studies by hundreds of talented U.S. vision scientists. Here are summaries of three current UCSF projects.



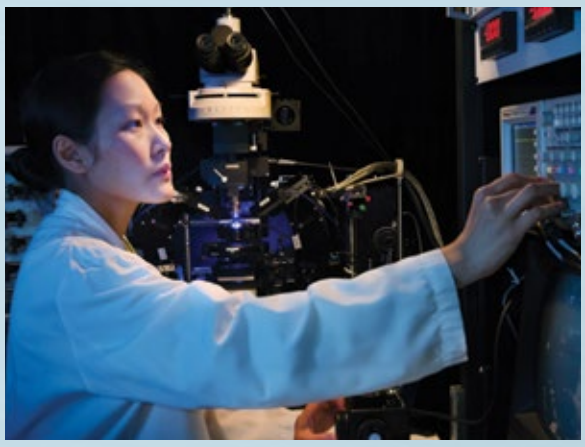
Saidas Nair, PhD – Genetics

Regenerating Damaged Retinas: Müller cells are retinal cells that provide both mechanical and functional support to the retinal neurons. In mammals, few of these cells can respond to cues that support their regenerative potential – and only under very specific injury conditions. Dr. Nair recently identified a subpopulation of Müller cells in the mouse retina that are likely primed to respond to regenerative signals. His research explores precisely how this subset differs from other Müller cells and how it responds to regenerative signals. The study holds significant promise for restoring vision by renewing retinal cells damaged by injury or disease.



Jacque Duncan, MD – Inherited Retinal Disease

Early Intervention for Retinitis Pigmentosa: Retinitis pigmentosa causes severe vision impairment from degeneration of the photoreceptor cells. Dr. Duncan (on left in photo with **Jia Qin, PhD**) uses laser ophthalmoscopy to probe photoreceptor structure and function in eyes with this inherited condition. By studying photoreceptors at the earliest stages of disease, her research will develop sensitive, objective measures of retinitis pigmentosa patients' photoreceptor structure and function. Her aim is to accelerate development and assessment of treatments for the disease. The research will help her plan early interventions, when the eye is most responsive to treatment.



Felice Dunn, PhD – Neuroscience

Preventing Retinal Cell Death: Dr. Dunn uses two-photon microscopy, which allows imaging of living tissue up to one millimeter in depth, to examine the retina's immediate reaction to photoreceptor damage in progressive eye diseases that cause deterioration of these vital cells and frequently lead to blindness. Dr. Dunn's team seeks to determine the sequence, time course, and mechanisms of events that lead to damage to postsynaptic retinal neurons once the photoreceptors begin to die. The research is aimed at preventing or slowing retinal cell death and improving outcomes for stem cell therapies for retinal diseases.

Recent UCSF Awardees

Jacque Duncan, MD
Felice Dunn, PhD
Marc Levin, MD, PhD
Saidas Kayarat Nair, PhD
David Sretavan, MD, PhD
Boris Bastian, MD, PhD (Depts of Dermatology and Oncology)
Michael Stryker, PhD (Dept of Physiology)

UVEITIS Solutions

Continued from page 1

Research in Ophthalmology, where he began immediate uveitis treatment. Inflammation triggered by Ryan's systemic disorder was causing his retina to detach.

Ryan moved back to his childhood home. "At first I needed help with simple things like getting to the shower," he says. "It was hard, and I knew I had to stay focused. I enrolled in community college and ordered my books on tape. Friends and family helped make it work." Weekly and then monthly for nearly two years, Ryan's parents drove him from Visalia to UCSF. Swimming kept up his spirits.

Patient Ryan Wullschleger is joined by two friends on a recent trip to Oakland.

> "Our team is totally committed to overcoming the challenges of this disease. We use all the technologies and resources at our disposal in pursuit of better outcomes for uveitis patients around the world."
>
> – Dr. Nisha Acharya

Meticulous Care

"I always knew I was getting the absolute best care at Proctor," says Ryan. "Everything was checked multiple times by multiple doctors."

Three uveitis specialists – **Nisha Acharya, MD, MS; John Gonzales, MD;** and **Thuy Doan, MD, PhD** – manage patient conditions at Proctor's uveitis clinic, assisted by cornea and external disease specialists **Thomas Lietman, MD,** and **Jeremy Keenan, MD, MPH,** as well as three fellows.

"Our team is committed to enabling uveitis patients to reach their full potential in life and not be limited by their disease," says Dr. Acharya. "We partner with patients and strive to find the optimal therapy to control each ocular inflammation while preserving quality of life."

> "I always knew I was getting the absolute best care at Proctor."
>
> – Patient Ryan Wullschleger

Teamwork Restores Sight

Drs. Acharya and Gonzales supported Ryan's sight recovery with drug therapies and meticulous monitoring. **Jay Stewart, MD** (Department of Ophthalmology), surgically inserted tiny corticosteroid implants into Ryan's eyes to reduce inflammation over many months.

More than a dozen UCSF retina, glaucoma, and pediatric ophthalmology specialists help uveitis patients with complications to retain their sight. Rheumatologists, internists, dermatologists, pulmonologists, and pediatricians assist the team in tailoring care for diverse cases.

Innovative Medicine

The current mainstay of treatment for noninfectious uveitis is corticosteroids. Proctor's clinicians are at the forefront of using and assessing novel treatments such as immunosuppressants and biologic agents to restore sight. This approach means that hundreds of patients each year avoid steroid complications, which can be debilitating in themselves.

Medical specialists in the northwest United States and beyond count on this team to help patients with the most complex uveitis cases. But Proctor does more. It also tracks, studies, and compares the long-term outcomes of treatments, developing evidence to improve care and overcome the disease.

Two Dreams Achieved

After receiving medical therapy and the time-release implants, Ryan's vision gradually returned. Today he can recognize people from about twelve feet away, and he can read books with regular size print. Some damage is thus far irreversible, leaving him unable to drive. His syndrome has attacked again, but immediate treatment protected his fragile sight.

Fortitude, the support of his family, and six years of expert care at UCSF have shepherded Ryan to restored sight and renewed independence. He completed his college degree in May 2016. Throughout his ordeal Ryan kept on swimming, even when he couldn't see the far end of the pool.

U·ve·i·tis

(U-vee-I-tis) noun

Inflammation of the uvea (layer of the eye just beneath the white sclera, including the iris)

Accounts for about 10% of blindness in the United States
Commonly begins in early or middle adulthood but can affect even babies and the elderly

Symptoms: Sensitivity to light, blurred vision, pain, and floaters are common

Known Causes: Infections, autoimmune disorders, certain systemic diseases

Prognosis: Prompt short-term treatment can calm inflammation, delaying or preventing deterioration of sight. For a minority of patients, symptoms do not return. Many, however, have chronic inflammation that requires ongoing treatment.

Complications: Often leads to cataract, glaucoma, macular edema, or retinal scarring or detachment

alumni acclaim

> "The depth of academic knowledge and practical experience that our mentors – Drs. Cunningham, Margolis, Lietman, and Whitcher – shared daily was very impressive."
>
> – Anna Hovakimyan, MD, PhD
> Head, Cornea-Uveitis Department, Malayan Eye Center, Yerevan, Armenia

> "The camaraderie and friendly discussions after case presentations served as a model when I started convening the Sociedad Panamericana de Enfermedades Inflamatorias Oculares at American Academy of Ophthalmology meetings."
>
> – Careen Y. Lowder, MD, PhD
> Cleveland Clinic Cole Eye Institute

> "Proctor set a high standard for clinical care, teaching, and investigation which guides me to this day."
>
> – Michael E. Zegans, MD
> Section Chief, Ophthalmology,
> Dartmouth University
> Hitchcock Medical Center

> "Our mentors had immense influence in shaping our decisions, clinical judgement, and analytical interpretations of the complex clinical problems in uveitis."
>
> – Khalid F. Tabbara, MD
> Medical Director, The Eye Center, Riyadh,
> Saudi Arabia, and Adjunct Professor,
> Johns Hopkins University

> "The Big Three – Drs. Thygeson, Kimura, and Hogan – were my mentors. Based on my lecture notes, I wrote a book on external diseases."
>
> – George Bohigian, MD
> Professor, Washington University
> School of Medicine

UVEITIS Research at UCSF

Proctor Foundation has always championed research to directly improve patient care and eradicate eye diseases. Uveitis remains a source of unknown causes and imperfect solutions.

UCSF's uveitis specialists partner with leading eye hospitals in several countries to conduct research. A strong partnership in uveitis research and patient care blossomed in South India from a Proctor visit to Aravind Eye Hospital in 1992. Sivakumar R. Rathinam, PhD, head of Uveitis Service at the hospital, remembers one impact: "We learned from Dr. Robert Nozik that clinical signs are often more important than expensive lab tests. That gave us more confidence to manage our uveitis patients, many of whom are uninsured."

Nisha Acharya, MD, MS, directs Proctor's Uveitis Service. For 10 years, she has been designing and leading studies to understand risk factors for uveitis and clinical trials to determine optimal treatments. There are currently no US-approved treatments for uveitis except corticosteroids. Based on a pilot study that Dr. Acharya led, the National Institutes of Health now funds a multicenter uveitis trial for patients in five countries – also led by Dr. Acharya – comparing two corticosteroid-sparing antimetabolites for first-line treatment. Dr. Acharya also serves as protocol chair for a National Institutes of Health multisite trial comparing treatments for macular edema, a leading cause of vision loss in patients with uveitis.

Thuy Doan, MD, PhD, uses comprehensive gene sequencing to evaluate fluid samples from the eyes of patients with unknown causes of uveitis. Gene sequencing is more sensitive than currently available diagnostic tests, allowing her to profile greater microbial diversity in biological samples. Working in the lab of UCSF biochemist **Joe DeRisi, PhD,** Dr. Doan expects to identify viruses and other causes of uveitis undetectable with conventional tools.

John Gonzales, MD, is focused on developing genetic profiles of different types of uveitis causes, with the aim of one day offering simple blood tests designed to diagnose them. Currently he is working on understanding the genetic profile of sarcoidosis, which can be life threatening if it reaches the lungs. This condition frequently involves the eyes, which can lead to blindness if left untreated. ●

Private funding for uveitis is provided by the Huang Pacific Foundation, Alta California Eye Research Foundation, Harper-Inglis Memorial Fund for Eye Research, Peierls Foundation, and Ivan, Maris, and Harry Meyerson. The National Institutes of Health and the World Health Organization sustain the work.

Left to right: Dr. Acharya, Dr. Doan, and Dr. Gonzales

> "My fellowship was the most wonderful period of my career. Not only was I trained and challenged by giants of the field, I was coached and polished to teach others. And I became part of the Proctor family."
>
> – Mark D. Sherman, MD
> Partner, Pacific Eye Surgeons, San Luis Obispo,
> Clinical Professor, Loma Linda University Medical Center

> "I am privileged to have trained and to be on faculty at a place like the Proctor Foundation. Many giants in the field of uveitis have passed through here and left their mark on the institution and the field. I am inspired by the dedication that my predecessors had for their patients and students."
>
> – Dr. Nisha Acharya
> Head of Uveitis Service, UCSF Proctor Foundation

UVEITIS Legacy of Leadership

Since its founding, the Proctor Foundation has set new standards in uveitis treatment, research, and education.

1955 – 1960s

Michael J. Hogan, MD; Phillips Thygeson, MD; and **Samuel Kimura, MD,** join Proctor faculty, launch UCSF's Uveitis Service, and publish landmark papers on uveitis grading, diagnosis, and treatment.

1957

Dr. Hogan appointed first director of the Francis I. Proctor Foundation. Continues his seminal studies on ocular toxoplasmosis, a common cause of infection.

Dr. Kimura joins the new Proctor Foundation from the Department of Ophthalmology.

1962

Dr. O'Connor joins the faculty and begins developing a strong federally supported uveitis research program.

1969

Uveitis specialist **Dr. Nozik** joins the faculty following completion of his Proctor uveitis fellowship with **Drs. Hogan, Kimura,** and **O'Connor**.

Top:
Drs. Thygeson and Hogan

Bottom:
Drs. Thygeson, Kimura, and Frederick Cordes

1970s – 1980s

Faculty members **Richard O'Connor, MD; Robert Nozik, MD; Khalid Tabbara, MD;** and **Ira Wong, MD,** expand internal research efforts and build internationally recognized uveitis training program that attracts dozens of national and international fellows. Many alumni pursue careers in uveitis and achieve influential positions in academic medicine.

1970

Dr. O'Connor appointed director of both Proctor and Uveitis Service

1972

Dr. Kimura and Department of Ophthalmology Chair **Dr. Hogan** establish That Man May See, the nonprofit foundation that advances UCSF vision sciences.

1983

Dr. Nozik and fellow **Ronald Smith, MD,** publish one of the earliest and most recognized textbooks on the uveitis disease group. The team establishes an innovative *naming and meshing* strategy, still widely used to diagnose uveitis causes and identify the most relevant laboratory tests.

1984

Dr. Nozik appointed director of Uveitis Service.

Drs. Tabbara, O'Connor, and Mardiono Marsetio, MD

1990s – 2000s

Faculty members **Careen Lowder, MD, PhD; James Dunn, MD;** and **Emmett Cunningham Jr., MD, PhD, MPH,** advance uveitis clinical, research, and teaching efforts.

1992

Dr. Nozik helps establish a uveitis clinic at India's Aravind Eye Hospital and begins an international collaboration in uveitis research and care that continues today.

1996

Dr. Cunningham Jr. appointed director of Uveitis Service.

1999

Dr. Wong appointed director of Uveitis Service.

Drs. Nozik and Cunningham Jr. with Aravind Hospital's Dr. Rathinam (center)

2010 – Today

International clinical trials led by Proctor Associate Director **Nisha Acharya, MD, MA,** aim to establish evidence-based treatments. Dr. Acharya, along with faculty **John Gonzales, MD,** and **Thuy Doan, MD, PhD,** pursue state-of-the-art clinical and lab-based research to improve diagnosis and treatment.

2014

Dr. Cunningham Jr. rejoins the faculty as a Research Associate focusing on resident and fellow education.

2015

Robert A. Nozik, MD, Lectureship is established to honor those who excel at uveitis patient care and teaching.

May 2016

Dr. Cunningham Jr. delivers inaugural Robert A. Nozik, MD, Lecture.

Top:
Multinational uveitis clinical trial team led by Dr. Acharya (in front row with blazer)

Bottom:
Dr. Cunningham Jr.

alumni acclaim

"I was a fellow in the 1970s and at that time the Proctor Foundation was the best and most unique place to be trained in uveitis and external diseases of the eye, including clinical and surgical cornea. It was the most important year of my professional life."

– Rubens Belfort Jr, MD, PhD
President, Instituto Paulista da Visão, São Paulo, Brazil

"Richard O'Connor and Robert Nozik gave the ophthalmic community great insight into ocular toxoplasmosis pathogenesis. I have enjoyed the warmth and kindness of these two great ophthalmologists and friends."

– Lourdes Arellanes-García, MD
Head, Inflammatory Eye Disease Clinic,
National Autonomous University of Mexico
President, Mexican Board of Ophthalmology

New Faculty

Sriranjani Padmanabhan, MD

Glaucoma Specialist

MD: University of Rochester School of Medicine

Residency: University of Pennsylvania/Scheie Eye Institute

Fellowships: Emory University (Glaucoma), University of Nebraska/ Truhlsen Eye Institute (Prevention of Global Blindness)

Q Why Glaucoma?

A I appreciate that glaucoma affects all parts of the visual system, allowing me to practice a wide range of skills on many types of cases. Also, I wanted to pursue a specialty that impacts vulnerable populations. We need more glaucoma doctors.

There's not always a lot of evidence to guide glaucoma management, and so we have opportunities to be creative and to develop evidence that makes a big impact. Glaucoma specialists create long-lasting relationships with their patients, and I love being a part of that!

Q Your international fellowship involved stints in five countries. How did that shape your view of medicine?

A My second fellowship gave me the opportunity to see how vision care varies in Haiti, Nepal, Ethiopia, Ghana, and Alaska. Seeing the sickest patients' lives changed after getting care was transformative.

The experience solidified the critical importance of preventing blindness, something I previously understood only on a rational level. It renewed my optimism in medicine.

Q Your primary assignment combines teaching and glaucoma care at Zuckerberg San Francisco General. Why is that special for you?

A I loved working internationally. The barriers to care that patients struggle with abroad are the same that many Americans face. Zuckerberg San Francisco General offers a diverse population with complex medical and socioeconomic challenges.

Working there fits me to a T. As it's a teaching hospital, I'm usually supervising our excellent residents. I enjoy witnessing their growth into confident doctors and having a hand in their progress.

My practice at the UCSF glaucoma clinic presents different case profiles, requiring a distinct management approach. The two patient groups allow me to develop my full skill set as a specialist

Q You considered a career in journalism. Does writing still interest you?

A I worked on a newspaper in college, and these days I imagine writing about medicine. On the creative side, I still develop my own fiction and poetry. That satisfies a different part of my brain! ●

Making Patients Look Good

"Optometry at UCSF is growing at a rapid clip, with increased access as our goal," says **Joyce Hsieh, OD,** supervising optometrist at UCSF Ophthalmology. Nine doctors of optometry (ODs) now partner with ophthalmologists to meet the special needs of patients in the cornea, glaucoma, comprehensive, and pediatric ophthalmology clinics. "We also evaluate, manage, and treat our own patients in the optometry clinics," adds Dr. Hsieh.

Putting Kids First

UCSF recently added an optical shop just for children, adjacent to the Visual Center for the Child at Mission Bay. "In a standard optical shop, kids can be an afterthought," comments Dr. Hsieh, "but our Mission Bay shop puts children's needs front and center." The shop's focus on young patients underscores UCSF's emphasis on early vision screening and care for children who may lack insurance or even regular access to healthcare.

"Catching and correcting even moderate refractive errors is essential to kids' ability to learn and thrive," says Dr. Hsieh. The optometrists provide eye care for many children, including those who face socioeconomic barriers. They work with social workers as needed to help improve attendance at appointments and continuity of care.

"Children usually don't report or even realize how poor their sight is," notes Dr. Hsieh. "Addressing vision impairment early saves many children from long-term sight disabilities." ●

To meet the whole optometry team, visit www.thatmanmaysee.org/optometry.

> "Addressing vision impairment early saves many children from long-term sight disabilities."
>
> – Optometrist Joyce Hsieh

Eradicating Trachoma

Students Raise Funds for Clean Water

Contagious and blinding eye diseases proliferate in millions of rural communities without clean water, effective sanitation, or hygiene tools. Students at the Carpenter School in Park Ridge, Illinois, wanted to help after learning that children in Ethiopia can't turn on a faucet to wash their hands. Villagers often rely on far-away wells.

Led by teacher Rebecca Keenan, the fifth-grade class investigated and reported on the need for clean water and how UCSF's Proctor Foundation is working to provide it. Ms. Keenan is a sister of Proctor's **Jeremy Keenan, MD, MPH,** principal investigator for a clinical trial of a public health intervention in 68 Ethiopian communities. The Carter Center co-leads the trial, and Catholic Relief Services and others support the work.

Improvements to Save Sight

The WASH intervention – improvements in WAter, Sanitation, and Hygiene – is being added to a program of mass antibiotic distribution. Used together, the strategies aim to halt the epidemic spread of trachoma and the blindness that so often follows, as well as reduce transmission of other infectious diseases. Digging local wells is a key component.

New Leadership for UCSF PROSE Clinic

Karen Lee, OD, applies the same rigor to her athletic pursuits and her career. She arrived at the clinic in January, following four months of intensive training at BostonSight, which developed and manufactures PROSE. "It's very satisfying to help patients overcome pain and reengage with the world around them," says Dr. Lee.

A Path to Help

"We assist patients for whom all other approaches have failed," notes Dr. Lee. "Many medical conditions can result in corneal complications, and PROSE can delay or eliminate the need for surgery."

> "We assist patients for whom all other approaches have failed."
>
> – Optometrist Karen Lee

The unique devices require precise measurement, manufacture, and patient training. Often, they are not covered by insurance. More than half the UCSF patients referred for PROSE lack the substantial resources required, so the clinic works to smooth their financial path. Help comes from private donations as well as support from UCSF and Boston Foundation for Sight. Leslie and Sean Doherty and their extended family established a fund for this purpose.

How PROSE Lifts Lives

When Theodore Fitzsimmons was diagnosed with leukemia, his treatment included a bone marrow transplant, which triggered a severe auto-immune reaction. Theodore's eyes began to burn and became painfully light sensitive; artificial tears and medications were no help.

In 2012, UCSF PROSE treatment changed Theodore's life. Once he learned to use his devices, Theodore could go outside without worrying about the sharp pains that a simple gust of wind or ordinary daylight used to cause.

After three years of daily wear, Theodore's PROSE devices became uncomfortable. Thanks to generous donations to That Man May See, Theodore was able to resume PROSE treatment with new devices. They are again helping him regain control over his life. ●

The PROSE clinic, now located at 8 Koret Way, was established with a generous gift from Sharon and Larry Malcolmson. Special thanks to the Sean and Leslie Doherty Family and the Jack and Betty Demetree Family Foundation for support of PROSE patient care. To learn more about supporting UCSF Ophthalmology, contact That Man May See, 415.476.4016 or thatmanmaysee.org.

What is PROSE?

Shorthand for Prosthetic Replacement of the Ocular Ecosystem, PROSE devices are customized lenses that fit under the eyelids and vault over the cornea, creating new, smooth optical surfaces with a built-in reservoir of lubrication. They can improve vision, help with healing, and reduce pain and sensitivity to light.

Kids Reach Around the World

When a severe drought in Ethiopia threatened the viability of new wells, That Man May See reached out for funds to dig deeper wells. Students at the Carpenter School were moved to raise funds. With Ms. Keenan behind the camera, students posed as news anchors, presenting reports on how clean water can change children's lives in the developing world.

The class launched a social media campaign featuring their video to raise $15,000 for a new deep well. The overwhelming response – more than $23,000 – enabled the school community to fund a deep well, a hand-dug well, a set of latrines, and many home sanitation stations! The project also raised student, teacher, and parent awareness of how precious clean water is. A school-wide assembly honored the class and featured thank you videos from Dr. Keenan and That Man May See.

To see the student video, visit: www.youtube.com/watch?v=i_VJHyyxJuk&feature=youtu.be ●

Pilot study funds were provided by the Sara and Evan Williams Foundation, and the JaMel and Tom Perkins Family Foundation Fund supports the current study. To learn more about supporting the Proctor Foundation, contact Kathleen Rydar at 415.476.4016, kathleen.rydar@ucsf.edu, or thatmanmaysee.org.

Alcatraz Swim for Sight

Saving Sight for Future Generations – Sunday, October 23, 2016

Join the 5th annual Alcatraz Swim for Sight and make a real impact in the fight to save and restore sight.

- Register to swim
- Become a virtual swimmer – crowdfund without dipping a toe in the water
- Make a gift for vision research

100 swimmers will jump into the chilly Bay waters to make waves for vision research. This signature event of That Man May See has raised over $350,000 in seed funding for peer-reviewed research, trailblazing solutions for eye disease. Help us achieve $500,000 over five years with your inspirational gift today. Make a splash – and help us imagine a world in which all may see. ●

To learn more, visit thatmanmaysee.org/Alcatraz or contact Molly Boylan at 415.476.4016 or mary.boylan@ucsf.edu. Funds raised make possible new avenues of vision research aimed at the most challenging conditions, such as retinitis pigmentosa.

New Professorships

Honoring Donors and Faculty

Three outstanding UCSF vision scientists have been awarded named professorships, honoring them for their accomplishments. All are leaders at the Francis I. Proctor Foundation for Research in Ophthalmology. Endowments of $1 million or more can be designated for professorships to honor faculty members and provide reliable funding for research, patient care, teaching, and community service.

Thomas Lietman, MD
Ruth Lee and Phillips Thygeson Distinguished Professorship

Nisha Acharya, MD, MS
Elizabeth C. Proctor Distinguished Professorship

Jeremy Keenan, MD, MPH
H. Bruce Ostler Endowed Chair in Ocular Epidemiology

Faculty News

NEI Keynote Speaker
Dr. Creig Hoyt

UCSF pediatric and neuro-ophthalmologist **Creig Hoyt, MD, MA,** was keynote speaker at the recent National Eye Institute conference sponsored by the Lasker Foundation and held at the Howard Hughes Medical Institute research campus in Virginia. Dr. Hoyt spoke on amblyopia, a developmental disorder of the eye that generally begins in early childhood. Amblyopia is the medical term used when vision in one eye is reduced because the eye and brain are not working together properly.

Dr. Hoyt is best known for a breakthrough in the treatment of congenital cataracts, which permanently impair vision if not removed during infancy. His landmark study improved treatment worldwide by demonstrating that cataracts can be removed safely from the eyes of very young infants. ●

Dr. Hoyt at home with his feline friend Little B

Dr. Abbott flanked by Hugh Taylor, President of The International Council of Ophthalmology, and Enrique Graue, President of the World Congress and President of the University of Mexico

Global Education Award
Dr. Richard Abbott

The International Council of Ophthalmology recently presented UCSF cornea specialist **Richard Abbott, MD,** with its Mark Tso Golden Apple Award at the opening ceremony of the World Ophthalmology Congress in Guadelajara, Mexico.

The World Health Organization has identified medical error as a major problem for all countries and referred to it as a global issue of epidemic proportions. Dr. Abbott discussed initiatives for improving patient safety and offered concrete initiatives to better patient outcomes. ●

Michele Bloomer, MD
Invited Lecturer and Co-Chair: Cataract-Ophthalmic Resident Education West, San Diego

This two-day cataract surgery training instructs ophthalmology residents from programs throughout the United States and Puerto Rico.

David R. Copenhagen, PhD
Invited Lecturer: Photoreception in Fetal & Newborn Mice: Actions on Behavior and Vascular Patterning in the Eye. Grand Rounds, University of Utah

David Hwang, MD, FACS
Honor: Awarded the Pearl T. Kimura and Samuel J. Kimura Endowed Chair in Ophthalmology

Shan Lin, MD
Publication: Wang YE, Kakigi C, Barbosa D, Porco T, Chen R, Wang S, Li Y, Singh K, Pasquale LR, **Lin SC**. Oral contraceptive use and prevalence of self-reported glaucoma or ocular hypertension in the United States. *Ophthalmology*. 2016 Apr;123(4):729-36. doi: 10.1016/j.ophtha.2015.11.029. Epub 2016 Feb 11.

Dr. Lin and his team found that women who took oral contraceptives for three years or longer had a higher risk for self-reporting glaucoma in a U.S. population-based study. These findings support that the natural cycle of estrogen production (which is suppressed by contraceptives) may be protective against glaucoma development.

Koret Vision Research Laboratories + Beckman Vision Center + Proctor Foundation

Facilities of UCSF Ophthalmology

University of California
San Francisco
Department of Ophthalmology
10 Koret Way, Room K-301
San Francisco, CA 94143-0730
www.ucsfeye.net

Francis I. Proctor Foundation
95 Kirkham Street
San Francisco, CA 94143-0944
proctor.ucsf.edu

HOW TO REACH US

Comprehensive Eye Center
415.353.2800
Routine eye care, acute care, eye disease referrals

Eyeglasses & Contact Lenses
415.476.3100

Cataract and Cornea Care
415.514.8200

Glaucoma Care
415.514.6920

Neuro-Ophthalmology
415.476.7176

Ocular Oncology Care
415.514.8722

Ocular Plastic Surgery
415.353.2800

Pediatric Ophthalmology
415.514.3916

Proctor Medical Group
415.476.1442

Retinal Care
415.353.2800

Vision Correction Surgery Center
415.353.2020
Individualized vision correction surgery, including LASIK and PRK

In Memoriam

Emma Dong – An Inspiration

Emma O. Dong (Chong), MD, became the world's first Chinese woman ophthalmic surgeon. She earned her UCSF medical degree in 1939 and was the first woman accepted to the residency program in the Department of Ophthalmology. She passed away in December 2015 at the age of 102 years.

Lifetime of Contributions

"Our celebrated alumna made a lifetime of contributions to UCSF and to ophthalmology," says **Stephen D. McLeod, MD,** chair of the Department of Ophthalmology. Dr. Dong was especially skilled at correcting crossed eyes with eye muscle surgery and restoring vision lost to cataracts.

Dr. Emma Dong and her husband Dr. Harry Chong at a UCSF Ophthalmology Open House

Dr. Dong and her husband, Dr. Harry Chong, practiced medicine in Salinas and became that county's first board-certified surgeons. She was a fellow of the American Academy of Ophthalmology and an associate examiner for the American Board of Ophthalmology. That Man May See is grateful for many gifts made to honor the life and work of Dr. Emma Dong. ●

To make a tribute gift, please visit www.thatmanmaysee.org/donate or contact That Man May See at 415.476.4016 or tmms@vision.ucsf.edu.

That Man May See Celebrates Recent Gifts

Thank you for generous contributions and pledges made between October 8, 2015, and June 23, 2016. All recent gifts benefit our campaign for the UCSF Vision Neuroscience Center at Mission Bay. For a complete list, please visit www.thatmanmaysee.org/how-you-can-help/contributors.

Visionary Leaders ($2,000,000+)
Koret Foundation

Distinguished Contributors ($1,000,000+)
Dr. and Mrs. Stacy R. Mettier Jr.
Joan and David Traitel

Benefactors ($500,000+)
The Herbst Foundation, Inc.

Honored Patrons ($250,000+)
Dale and Margaret Burns Ames
William H. and Sonja A. Davidow
Larry L. Hillblom Foundation, Inc.

Visionaries ($100,000+)
Mary and Phil Anderson
Estate of Lillian V. Balzarini
BrightFocus Foundation
HEDCO Foundation
Hellman Foundation
Huang Pacific Foundation
The Esther A. & Joseph Klingenstein Fund, Inc.
Knights Templar Eye Foundation
Don and Judy McCubbin
The Peierls Foundation, Inc.
Estate of Pauline L. Pizante Haddad
The Frank and Denise Quattrone Foundation: Denise Foderaro and Frank Quattrone, Trustees
Research to Prevent Blindness
Venetta and John Rohal
The Schreck Family
Bob and Naomi Stamper
E. Matilda Ziegler Foundation for the Blind

Entrepreneurs ($50,000+)
Anonymous
American Glaucoma Society
Mrs. James P. Livingston
New World Medical, Inc.
Norby Anderson
Sandler Foundation
Ronald and Anita Wornick

Investors ($25,000+)
Anonymous
ALS Association
Thomas and Johanna Baruch
Daniel Benatar
Donald and Roslyn Kahn
Carl M. Kawaja
The Kimball Foundation
Dr. Thomas and Mrs. Yvonne Mazzocco
North American Neuro-Ophthalmology Society
Jeanne and Sanford Robertson
Kathleen L. Rydar
The David and Elva Sinai Foundation, Inc.

Director's Council ($10,000+)
Gerson P. Bakar and Barbara Bass Bakar
BNY Mellon Wealth Management
California Foundation for Molecular Biology
David and Joyce Copenhagen
Françoise G. Fleishhacker
Tom and Gunilla Follett
The Friend Family Foundation
Paul and Béatrice Gomory
Kawaja Family
Keith and Metta Krach
Love Family Charitable Fund
Kathlyn McPherson Masneri and Arno P. Masneri Fund
Joe and Margaret Melcher
Ivan, Maris, and Harry Meyerson
Richard and Candace Olsen
Lisle and Roslyn Payne
JaMel and Tom Perkins Family Foundation Fund
David and Bobbie Pratt
Arthur and Toni Rembe Rock
Miriam Shearing
Stephen and Paula Smith
Sue and Laurence Spitters
John and Peggy Stock
Patricia and Stanley Wells
Jim and Janet Wulfsberg

Luminaries ($5,000+)
Anonymous at Silicon Valley Community Foundation
Paul and Betty Baldacci Family Foundation
The Bellini Foundation
Buck and Sylvia Breiholz
Edward and Margaret Collins
Patrick and Ginger Connolly
Bruce and Suzanne Crocker
A Cure in Sight
Mr. and Mrs. Donald W. Davis
Jerome and Catherine Debs
Janet and Bill Dinsmore
Luke B. Evnin, PhD, and Deann Wright
Gloria and Saul Feldman
Foundation Fighting Blindness
Dr. and Mrs. Sylvan D. Gross
Matt and Melinda Guelfi
James D. and Joan C. Kirsner
Angus and Virginia MacLean
Alastair and Celine Mactaggart
Joan Platt
Mamatha and Pradip Shankar
W. Scott Thomas
Marilyn and Jack Whitcher
Bruce U. Wintroub, MD, and Marya Wintroub
Eric Zankman and Pamela Kaufmann

Dream Makers ($2,500+)
Activity Fund School District 64
Joan E. Avenali
Sandra and Conrad Donner
The Enersen Foundation
Mary Ellen and Michael E. Fox Family Foundation
Lorie and Ron Hirson
James R. Hollander
Donald R. and Judith D. Krohn
Lydia A. Lukian, MD
Bill Matthes
Janet and Edwin Medlin
Faye Mellos and Michael Holland
Amy S. Millman and Paul M. Kochis
James and Janet Mitchell
Tim Müller
The Nickerson Charities Fund
Ed and Marcia Pollack
PSN Family Charitable Trust
Judy and Fred Riedel
Shustek Dubinsky Family Philanthropic Fund
Spark Therapeutics, Inc.
William and Hannah Sweet
Mrs. Camele Wanat

Innovators ($1,000+)
Anonymous (2)
Richard L. and Cecilia Abbott
Linda L. Aldrich
Nancy Alpert
Joelle Benioff
Timothy G. Berger, MD, and Jessica E. O'Dwyer
Becky and Jeff Bleich
Dr. and Mrs. William Breall
C. Preston Butcher and Carolyn Butcher
David F. Chang, MD, and Victoria A. Chang
Chevron Humankind Program
Mrs. Daniel G. Cook
Pete Craig
Dr. and Mrs. J. Brooks Crawford
Gary A. D'Acquisto Family
Elayne R. Dauber and Philip S. Dauber
Rosalind Gray Davis and Robert M. Davis
Hal Dawson and Mary McVey
Paula Dawson
Sue and John Diekman
John and Marilyn Dougery
Margaret R. Duflock
Karen Eliadis
Fidelity Investments
Allan J. Flach, MD, PharmD, and Teri Flach
FusionStorm
Lorrie and Richard Greene
Larry and Carie Haimovitch
James Halper
Michael Halper
Rod and Carole Hartless
Tyler Higgins
Alfred Hom
Jonathan C. Horton, MD, PhD
James S. Hsue
Huntington Farms
Arlene Inch
David K. Ingalls
Drs. Alex and Chauncy Irvine
The James Irvine Foundation
Margaret M. Jacobsen
Leonard and Margo Karstadt
Colleen Kavanagh
Nick and Becky Kemsley
Don and Colleen Kieselhorst
Man K. Kim, MD, and Grace H. Kim
Ernest M. Kotlier, MD
Dr. and Mrs. Shiu Y. Kwok
Stephanie LeGras
Shan C. Lin, MD, and Ho Hui Lin
Local Independent Charities
Diane M. Luders
Zoya A. Lukian
Rabbi Brian Lurie and Ms. Caroline Fromm Lurie
Donna L. and Edward E. Martins Foundation Inc.
The Mattson Family Conservation Foundation
Joan and Roger McGee
Stephen D. McLeod, MD, and Marion Faymonville
Todd and Stacey and Joe Melcher
Tara K. Mochizuki and Jeffrey M. Chu
Anthony and Lary Lynn Muller Fund of the Community Foundation for Monterey County
Barbara Z. Musser
Oak Leaf Rebekah Lodge No. 74
Rosanne and Michael Ogles
Richard and Susan Olness
Susan Page and Richard Metcalfe
Walter Jeff Parton
Barry Petersen
Robert Pilon
Virginia G. Piper Charitable Trust
Frederick M. Pistilli
Linda B. Plant
Eva and William Price
Virginia M. Ratto
Daniel Reid
Barbara H. Rosston at Silicon Valley Community Foundation
Robert and Isabel Schuchardt
Daniel M. Schwartz, MD
Michael and Susan Schwartz Fund at Marin Community Foundation
Edward C. Shotwell III 1996 Charitable Annuity Lead Trust
James Hart and Mary Pfeiffer Smith
Mary Ann Milias St. Peter
R. G. Starmann Sr.
Judith Good Stearns
R. B. and Jean C. Switzer
Theta Delta Xi
Jack and Jane Threlkeld
Ted and Betty Tight
Ann and Marshall Turner
Morey A. Weingarten, MD
Wells Lamont
U. Christina West, MD, and William B. Conerly
Diane Wilsey
Charles B. Wilson, MD, and Frances S. Petrocelli
Carey and Noah Wintroub
Burton L. Wise, MD, and Myra Wise, PhD
Ira G. Wong, MD, MS, and Eleanor W. Wong
Peggy and Lee Zeigler
Andy Zwick

That Man May See is a 501(c)3 public charity. Its mission is to raise funds for the dedicated faculty of UCSF Ophthalmology to make possible breakthroughs in vision research, state-of-the-art patient care, educational opportunities for residents and fellows, and community service.

To make a gift of cash or securities, go to www.thatmanmaysee.org/donate or call 415.476.4016 or email tmms@vision.ucsf.edu. Checks are payable to That Man May See.

That Man May See
10 Koret Way, Box 0352
San Francisco, CA 94143-0352
tmms@vision.ucsf.edu
VISIONS is a publication of the Department of Ophthalmology at UCSF and is produced by That Man May See.

Editorial Board
Robert B. Bhisitkul, MD, PhD
Thomas M. Lietman, MD
Yvonne Ou, MD
David Sretavan, MD, PhD

Copy
Becky Jennings
Kathleen Rydar
Max Dietshe

Managing Editor
Becky Jennings

Editorial
Molly Boylan
Kathleen Rydar

Design
Ikkanda Design Group
Donna Beilock
Anat Rodan

Photography
Linsi Taylor Matteson
Stephanie Meyers
Marc Olivier Le Blanc
Marco Sanchez, UCSF DM Photography
Trish Tunney

Printing
Arrowhead Graphix
Bruce Mayfield

For a free subscription to VISIONS magazine, please call 415.476.4016 or go to www.thatmanmaysee.org/what-we-support/visions-magazine.

To receive or cancel further fundraising communications from the Department of Ophthalmology or That Man May See, please contact:
Records Manager
Department of Ophthalmology, UCSF
Box 0248
San Francisco, CA 94143-0248

UCSF University of California
San Francisco, CA 94143

THAT MAN MAY SEE
415.476.4016

RETURN SERVICE REQUESTED

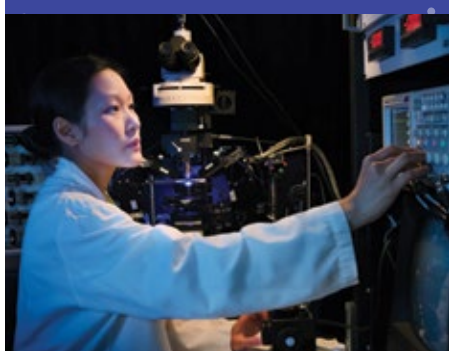
Help save sight and save lives.

Visit our website at www.thatmanmaysee.org

Mission Bay Goal in Sight

Advancing Uveitis Care

Research to Prevent Blindness



Join Alcatraz Swim for Sight

Kids Onboard

Children need to see well to learn. And since young people inevitably break or lose their glasses, **The Augie Fund** and **Prevent Blindness Northern California** are partnering to provide replacements for children from families in need.

"The partnership with The Augie Fund makes a second pair of glasses possible for children likely to struggle along without them," says Seth Schalet, executive director of Prevent Blindness Northern California. "We're very excited to extend our support for these children."

Serving Families in Need

The Augie Fund at That Man May See offers prescription glasses with zero red tape for children from low-income families at UCSF Ophthalmology, Zuckerberg San Francisco General, and UCSF Benioff Children's Hospital Oakland. The fund was launched after young Augie Wintroub-Hansen began amblyopia treatment at UCSF. His family realized that the high cost of specialized glasses and contact lenses could challenge many families.

Early Intervention Aids Success

The new partnership ensures that low-income preschoolers can benefit from optimal vision and the academic achievement that comes with it. The See Well to Learn Eye Bus program at Prevent Blindness Northern California provides comprehensive support for healthy sight, including ongoing follow-up. The nonprofit plans to expand its successful program, which screened 8,300 Bay Area children last year. ●

To support The Augie Fund, contact Molly Boylan at That Man May See, 415.476.4016, molly.boylan@ucsf.edu, or www.thatmanmaysee.org.

Young children are excited to see the Eye Bus pull up at their preschool or Head Start site. Curiosity motivates them to get on board for vision screening – a positive early experience of caring for their health.