

Vision

THE FUTURE OF

Summer 2019

University of California, San Francisco | Department of Ophthalmology | Francis I. Proctor Foundation | That Man May See



From left: Drs. Lietman, Nair, Deiner, Porco, Acharya, and Stewart

Big Data, Big Future

UCSF vision scientists use the mountain of digitized information called “big data” to advance sight for all.

Technological innovations have converged to create big data. UCSF’s vision scientists now routinely use massive, diverse, and searchable datasets to help answer vital research questions more quickly and clearly than ever.

Big Data Expertise

The Francis I. Proctor Foundation for Research in Ophthalmology and the Department of Ophthalmology are jointly establishing a big data group, led by data scientist **Michael Deiner, PhD**. “This reflects UCSF leadership, experience, and commitment in this specialty,” says **Tom Lietman, MD**, the Foundation’s director.

Google, Twitter, and Global Epidemics

Billions of people use their phones, tablets, and laptops to look up symptoms or seek information about health and illness. Google alone provides what biostatistician **Travis Porco, PhD**, calls “oceans of data,” with about 5.5 billion searches per day. Twitter users generate about 500 million tweets each day.

Drs. Porco, Deiner, and Lietman collaborate on two major big data studies. They use data mining, statistical spatiotemporal analysis, data visualization, machine learning, and topic modeling to investigate whether internet-based search terms, social media posts, and large clinical datasets can assist in detecting and tracking contagious outbreaks and epidemics.

Continued on page 2

A PEEK INSIDE:



New Low Vision Clinic



It’s a Patient-Doctor Privilege



Meet New Faculty



The Future of Vision



FOCAL POINT

Dear Friends,

As we share with you in this issue, vision research at UCSF continues its tremendous growth, and our faculty now ranks as one of the highest NIH-funded research groups in the country.

One of the research tools we harness is “big data” and digital information technology. The vast repository of digital data in and outside of medicine offers powerful new tools under development here at UCSF for vision research.

We introduce you to the next generation of laboratory scientists, our postdoctoral fellows, who join us from around the world to open new avenues of investigation into innovative cures.

In a few short months we will move to the Wayne and Gladys Valley Center for Vision, a site that will allow us to make even further advances in understanding and addressing vision loss and blindness, providing the highest quality care, and teaching the next generation.

Thank you for your support towards these goals.

Sincerely,

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

Big Data, Big Future (cont.)

“Poor Baby Has Pink Eye.” For example, through machine classification of millions of social media posts about pink eye, the team found common phrases such as “poor baby has pink eye.” These phrases guide them towards relevant online content to identify possible outbreaks.

Each year in the United States, over 3.5 million school days and 8.5 million work days are estimated to be missed due to pink eye, with clinical costs estimated to exceed \$800 million. Although the redness, burning, itching, pain, and/or swelling often clear up on their own, untreated complications can lead to sight loss.

“If information from social media, online forums, and internet searches can complement traditional approaches for identifying infectious eye outbreaks more quickly and accurately, health agencies may be able to intervene more effectively,” says Dr. Deiner. Alerting people to stay at home or take other simple measures can stem the tide of eye contagion, keeping more children and adults happy and healthy.

Trachoma Forecast

The team’s second big data project is aimed at tracking epidemics of trachoma. To more accurately forecast if and when the contagious blinding disease can be brought under control worldwide, Drs. Leitman, Deiner, and Porco are developing the most in-depth meta-analysis yet by mining all major databases that track trachoma. UCSF’s Proctor Foundation has long worked to banish the disease from deeply affected rural areas in Africa.

Genetic Targets to Halt Glaucoma

By the time Christie Hastings noticed blurring in her visual field, her sight already had been permanently compromised. For patients like Christie, glaucoma treatments that target retinal cells to protect the optic nerve from degeneration promise to transform

outcomes. Toward this aim, geneticist and glaucoma researcher **Saidas Nair, PhD**, and his team leverage a powerful database that links the genetic profiles of more than 110,000 individuals with their health records.

The database was codeveloped by the UCSF Institute for Human Genetics and Kaiser Permanente Northern California. With a median patient age of 65 years, the database is ideal for investigating age-related diseases like glaucoma.

In a broad initiative to advance understanding of glaucoma and novel solutions to save sight, Dr. Nair’s team joins clinician scientists, computer scientists, biologists and epidemiologists.

Eric Jorgenson, PhD, and Ron Melles, MD (Kaiser Permanente Northern California), were instrumental in characterizing the glaucoma patient groups, which facilitated Dr. Nair’s genetic studies of the retina.

Analysis has already yielded a list of common genetic variants that predispose individuals to develop glaucoma. Combining these findings with their research on laboratory glaucoma models, Dr. Nair’s team identified a set of genes that works through retinal nerve cells, thus contributing to optic nerve degeneration.

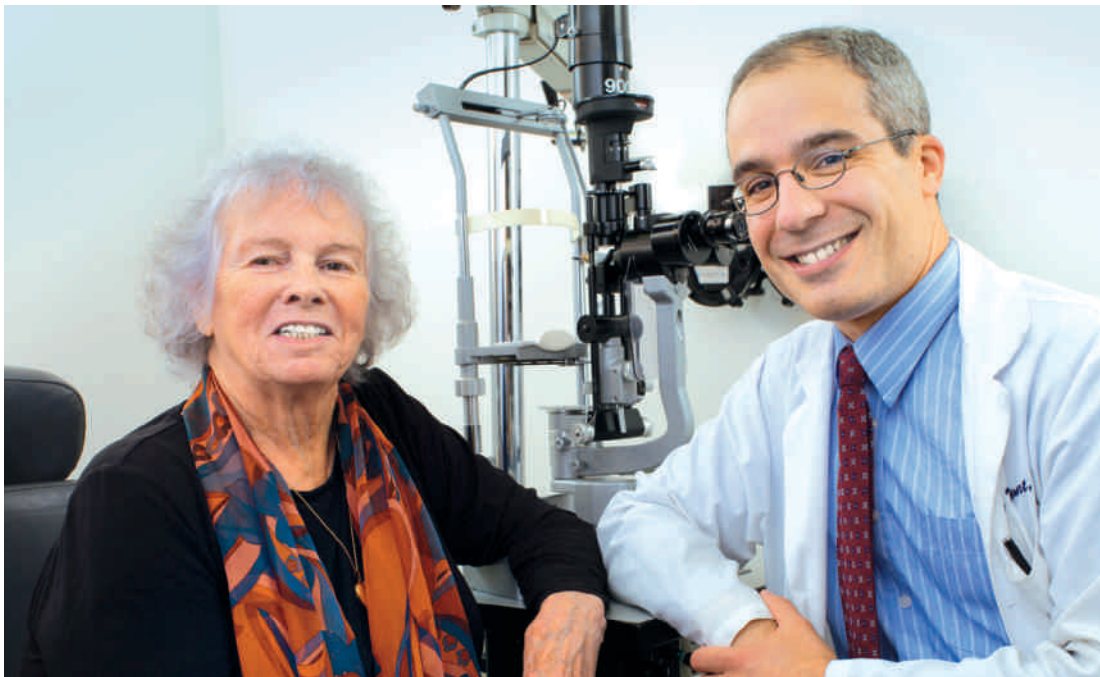
This group is now exploring how these genes operate to induce damage to the optic nerve. Better understanding will suggest novel targets for glaucoma treatment.

Can a Diabetes Drug Help AMD?

When patient Betty Toal was diagnosed, a major research breakthrough allowed vitreoretinal specialist **Jay Stewart, MD**, to treat her wet age-related macular degeneration (AMD). “I am grateful because he saved my sight,” says Betty.



The teams’ machine classification of Twitter posts yielded common terms related to infectious pink eye.



Grateful patient Betty Toal with Dr. Jay Stewart

No treatments yet exist for most AMD patients – those with the much more common dry type. Untreated, AMD slowly reduces the detailed central sight needed for facial recognition and reading.

“There is a pressing need for novel therapies to halt AMD,” says Dr. Stewart. He hypothesizes that the anti-inflammatory effects of metformin, a common diabetes treatment, may help, since inflammation is believed to play a role in AMD. His curiosity and commitment to eye patients drive the research.

Big data provides a window for understanding metformin’s potential for AMD. The Intelligent Research in Sight (IRIS) Registry (41 million health records) allows Dr. Stewart and co-investigator **Jeremy Keenan, MD, MPH**, to identify a huge number of patients with diabetes and AMD and identify patients that were treated with metformin.

The team will harvest new knowledge to inform AMD treatment from any differences between patients that took metformin and those that did not.

“If the investigation shows metformin to be promising, we will build on this inquiry,” says Dr. Stewart. “We’re keenly aware that preserving sight increases people’s choices in old age.”

As part of the growing wave of aging Americans with AMD, Betty is eager for solutions that will help more seniors. Never one to sit on the sidelines, she has made a bequest to That Man May See in support of Dr. Stewart’s research.

An Eye on Shingles


Older people fear shingles (herpes zoster) for good reason—the painful viral infections can be long lasting, and risk increases with age. Ocular shingles can lead to chronic or blinding conditions.

“Big data lets us answer key questions about how available vaccines affect patients with ocular shingles,” says uveitis specialist **Nisha Acharya, MD**. The latest vaccine requires two shots, prevents more than 90 percent of infections, and reduces duration, pain, and discomfort in cases that still occur. Her team will use the Optum database (81 million health records) to compare shingles cases in vaccinated and unvaccinated patients. New understanding of the impacts may mobilize public health agencies to more actively promote shingles vaccinations.

Power Tools for Discovery

Many UCSF vision researchers now capitalize on big data, and methodologies range from metagenomic deep sequencing (**Thuy Doan, PhD**) to deep learning neural networks (**Luca Della Santina, PhD**).

“No matter the eye disease, big data offers new pathways for understanding and intervening, personalizing treatment, and advancing healthy sight worldwide,” says Department Chair **Stephen D. McLeod, MD**.

Research support is provided by the National Institutes of Health, Research to Prevent Blindness, OptumLabs, American Academy of Ophthalmology, Foundation Fighting Blindness, and That Man May See. 

AMD
is the leading cause
of blindness
in people
55 and older
in developed
countries.

Low Vision Clinic Opens



For her low vision eye exam, patient Anh Bui wears trial frames.

“Even after ophthalmologists have done all they can, there are ways to help patients function better in their daily lives.”

— Truyet Tran, OD

The new UCSF Low Vision Clinic on the Parnassus campus helps patients make the most of compromised sight.

UCSF Ophthalmology provides state-of-the-art care for eye patients with the most challenging conditions. Yet many diseases continue to degrade vision despite the best possible care.

“Even after ophthalmologists have done all they can, there are ways to help patients function better in their daily lives,” says **Truyet Tran, OD** (doctor of optometry), who leads the new clinic.

Help with Daily Life

Macular degeneration patient Anh Bui recently found assistance from Dr. Tran. Anh tested four types of devices and found a handheld magnifier with a light in it that made reading easier.

Patients also try out tints and color filters to improve contrast and minimize glare. Other options include portable electronic magnifiers with multiple settings to aid viewing and reading.

Tips, Tools, and Referrals

Simple things make a difference. People may have trouble pouring

their coffee without spilling it, for example. Dr. Tran recommends using a white cup to contrast with the coffee. The clinic provides referrals for advanced training, such as working with a guide dog or using a cane.

The new clinic has the best tools for finding optimal prescriptions, and Dr. Tran brings substantial experience to fitting patients, using trial frames to test lenses.

Tomorrow's Ophthalmologists

To better train tomorrow's ophthalmologists in low vision services, the Lighthouse Guild, based in New York, funded development of the new clinic. “We’re working to integrate low vision care into resident education,” says Dr. Tran.

Easy Does It

Because the new clinic is located at the Parnassus campus, most UCSF low vision patients can access these services in a familiar environment. It's one more way the clinic makes life easier for those living with sight loss.

To make an appointment at the Low Vision Clinic, contact Ngan Larnauti at 415.353.2177. 

In Search of a Cure

Cindy Fassler and her retinal specialist, Jacque Duncan, MD, see eye to eye. Both want a cure for Stargardt disease and other forms of inherited retinal degenerations.

Early Sight Loss

At age 11, Cindy's eyesight began to dim as photoreceptors in the centers of her retinas gradually died. Her family searched endlessly for a diagnosis until **Samuel J. Kimura, MD**, a pioneering UCSF clinician scientist known for his remarkable compassion and skill, pinpointed the disorder. "It was a relief for my family to know what it was," says Cindy. Even today, proven treatments don't yet exist.

Few organizations at that time could help patients like Cindy remain functional as their vision declined. Assisting individuals to maximize their independence and belonging has become a greater priority as attitudes toward disability have evolved.

Launching a Business

At a career transition, Cindy started her own full-service staffing agency. A successful recruiter for the financial sector, she builds confidence for job seekers and connects them with opportunities. She appreciates the job protections provided by the Americans with Disabilities Act, which became law in 1990.

Birthday Giving

When she turned 60, Cindy asked friends for "the best birthday gift possible," donations to That Man May See for Dr. Duncan's leading-edge research to overcome retinal degenerations. As the foundation for ophthalmology at UCSF, That Man May See supports a future of vision for all.

Cindy loves changing people's lives for the better. She now devotes time as an advocate for others who are blind or suffer from low vision. Her generous spirit builds a brighter present and future for retinal patients.

Seed Funds Fuel Research

Clinical trials underway at UCSF and other vision centers investigate new strategies, including gene therapy, neuroprotective agents, and stem cell therapy to halt inherited retinal degenerations.

"Major advances in molecular genetics have led to the development of new treatments, including the first FDA-approved gene therapy for an inherited retinal degeneration due to mutations in a gene called RPE65," reports Dr. Duncan.

Dr. Duncan currently leads five clinical trials, including one investigating an experimental treatment for Stargardt disease. It will begin enrolling patients later this year. 👁



Macular degeneration patient Cindy Fassler appreciates Dr. Duncan's clinical care and supports her research to find innovative solutions.

Welcome New Faculty



Dr. Luca Della Santina

holds an appointment with the Department of Ophthalmology. His software can identify and map large numbers of retinal synapses, paving the way for novel early screening methods and therapies to protect the most vulnerable retinal circuits from blinding neurodegenerative diseases.

PhD: University of Pisa (Neuroscience)
Fellowship: University of Washington, Seattle (Neural development and degeneration)

- Q** Why are the tiny connections between retinal nerve cells so important?

A They are the main way neurons communicate information to the brain. In neurodegenerative diseases, synapses fail before the cells die, making them strong candidates for early treatment.

Q You’ve developed novel tools to identify retinal synapses. How so?

A The human retina is estimated to have billions of synapses. To identify and locate each one, I developed ObjectFinder, an open source application that uses deep learning artificial intelligence to recognize small objects in large three-dimensional images and plot their properties. Our confocal microscope allowed me to reconstruct images of retinal synapses. With these tools, the dream of identifying every single synapse in the retina is finally within our reach.

Q How will your research help patients?

A With this broad-scale data on synapses, we can look for patterns of synaptic loss specific to various retinal degenerations, leveraging their functional
- role to create early screening and targeted therapies.

I’m also using ObjectFinder to recognize the hallmarks of trachoma in photos of patients’ eyelids taken in remote areas where trachoma is a major vision threat. This collaboration with the Proctor Foundation will allow healthcare providers to more quickly identify rural areas requiring prophylaxis to halt disease progression and blindness.

Q How did computer engineering become your primary research method?

A Coding has always been a hobby. As the computational power of home PCs increased, my coding evolved from creating simple games to creating my own tools for analyzing large datasets.

Q What else are you passionate about?

A I love landscape photography, especially taking my camera to the astounding California coast. I recently discovered the beauty of Sea Ranch and hope to spend more time there with my wife, Allison. 🐾

Postdoctoral Laboratory Scientists



Kriti Bahl, PhD
Bardet-Biedl syndrome
PhD University of Nebraska (Biochemistry, molecular biology)
Birthplace Hisar, India
Mentor Dr. Nachury



Kathleen R. Chirco, PhD
Leber congenital amaurosis
PhD University of Iowa (Molecular and cellular biology)
Birthplace Clayton, CA
Mentor Dr. Lamba



Swanand Koli, PhD
Glaucoma, refractive errors
PhD University of Mumbai (Biochemistry)
Birthplace Mumbai, India
Mentor Dr. Nair



Kayla W. Branyan, PhD
Cerebral small vessel disease, intracranial hemorrhage
PhD West Virginia University (Exercise physiology)
Birthplace Newville, PA
Mentor Dr. Gould



Genki Hayashi, PhD
Cerebral small vessel disease
PhD University of California, Davis
Birthplace Kobe, Japan
Mentor Dr. Gould



Joo Yeun Lee, PhD
Retinal degenerations
PhD University of Southern California (Neuroscience)
Birthplace Seoul
Mentor Dr. Dunn



Corinna Cozzitorto, PhD
Anterior segment dysgenesis
PhD Humboldt University of Berlin (Translational cardiovascular and metabolic medicine)
Birthplace Turin, Italy
Mentor Dr. Gould



Sangeetha Kandoi, PhD
Age-related macular degeneration
PhD Indian Institute of Technology, Madras (Stem cells, cardiomyopathy)
Birthplace Berhampur, Orissa, India
Mentor Dr. Lamba



Huinan (Marcus) Li, PhD
Retinal diseases
PhD Texas A&M University (Neurobiology)
Birthplace Anshan, China
Mentor Dr. Ullian



Dr. Melissa Neuwelt

joins the Department of Ophthalmology as a vitreoretinal specialist, serving patients at the Parnassus campus, East Bay Vision Clinic, and the San Francisco VA Medical Center.

MD: UCSF
Residency: Wills Eye Hospital, Thomas Jefferson University
Fellowship: Beaumont Hospital, Royal Oak, Michigan (Retina, two years)
Previous Position: Vitreoretinal surgeon in private practice

- Q** Why did you choose to join the UCSF faculty?

A My esteem for the UCSF Department of Ophthalmology has always been high. I respect the work of the department in caring for patients as well as advancing the field. My time here during medical school is really what inspired me to become an ophthalmologist.

Q Why did you choose vitreoretinal surgery?

A The creative nature of every surgery fascinates me – as a surgeon I am called on to make choices as the process unfolds, based on the uniqueness of each patient. I also enjoy working with colleagues in other medical specialties to manage the patients’ general health, as retinal care requires an understanding of systemic disease.
- Q** What are you looking forward to at UCSF?

A With the new building, everyone will be together at the Mission Bay campus. It will foster collaboration between the physicians and the various specialties. I’m looking forward to doing more pediatric vitreoretinal surgery, so I’m happy that we will be across the street from the pediatric ophthalmology clinic in the Ron Conway Family Medical Gateway Building.

Q What are your interests outside of ophthalmology?

A I enjoy exploring San Francisco and the foothills of Oakland, trail running, and doing Bikram yoga. I’m training for the New York City Marathon this year. I’m also a mom to a 5-year-old daughter and a 3-year-old son, and I love traveling and getting outdoors with them and encouraging them to explore. 🧐



Dawiyat Massoudi, PhD
Retinitis pigmentosa
PhD Paul Sabatier University (Biotechnology/ biomedical sciences)
Birthplace Comoros
Mentor Dr. Gould



Swapnil R Shinde, PhD
Bardet-Biedl syndrome
PhD Centre for DNA Fingerprinting and Diagnostics (Life sciences)
Birthplace Kolhapur, India
Mentor Dr. Nachury



Kenichi Toma, PhD
Glaucoma
PhD RIKEN Center for Developmental Biology
Birthplace Nara, Japan
Mentor Dr. Duan



Irene Ojeda Naharro, PhD
Bardet-Biedl syndrome
PhD University of Zurich (Molecular biology)
Birthplace Cuenca, Spain
Mentor Dr. Nachury



Manuel Soliño, MD, PhD
Glaucoma
PhD Buenos Aires University (Retinal degeneration, neuroscience)
Birthplace Buenos Aires
Mentor Dr. Ou



Chen Yin, PhD
Glaucoma
PhD Chinese Academy of Sciences (Neuroscience)
Birthplace Deyang, China
Mentor Dr. Duan



Peipei Pan, PhD
Fuchs endothelial corneal dystrophy
PhD University of Nevada, Las Vegas (Biological sciences)
Birthplace Shandong Province, China
Mentor Dr. Chan



Li Xuan Tan, PhD
Macular degeneration
PhD University of Wisconsin, Madison (Pharmaceutical sciences)
Birthplace Penang, Malaysia
Mentor Dr. Lakkaraju



Alfred K Yu, PhD
Glaucoma
PhD UC Davis (Molecular, cellular, and integrative physiology)
Birthplace San Francisco
Mentor Dr. Ou

Not Pictured: Malek Chouchane, PhD / Congenital malformation of the eye
PhD Federal University of Rio Grande do Norte (Neuroscience) / **Birthplace** Tunisia / **Mentor** Dr. Ullian

Providing vision care in comprehensive ophthalmology, glaucoma, retina, and optometry. Call **415-353-2800** to discuss moving your vision care to this clinic.

Celebrating the Future of Vision

Wayne and Gladys Valley Center for Vision



We are pleased to announce **the major named spaces** within the new building.

The state-of-the-art center for eye care and clinical research at UCSF Mission Bay will be named for philanthropists Wayne and Gladys Valley, whose foundation provided leadership support for the Future of Vision. The Department of Ophthalmology and Francis I. Proctor Foundation, both global leaders for vision care, research, and education, will move together under one roof.


We are pleased to announce the facility’s name and the major named spaces within the building, now nearing completion. These locations will honor contributors whose philanthropic investments of \$1 million or more anchor the Future of Vision effort of over \$176 million to date. The Future of Vision is engaging more than 5,000 individuals, foundations, and companies in support of construction, vision research, and endowments.

Major Named Spaces in the Wayne and Gladys Valley Center for Vision

- Theresa M. Caygill and Wayne M. Caygill Atrium
- Koret Vision Clinics
- Bernie Newcomb and Gerry Marshall Center for Innovative Eye Surgery
- Fortisure Foundation Center for Glaucoma Care and Research
- William G. and Ruth R. Hoffman Auditorium
- Richard Baruch, MD, Surgical Didactics Suite
- David F. Chang, MD, Resident Conference Room
- Joan and David Traitel Lounge

Special Legacy Honors

- Tom and Yvonne Mazzocco Surgical Laboratory
- Ralph and Sophie Heintz Laboratory
- Pearl and Samuel J. Kimura Ocular Immunology Laboratory
- Harry William Hind Library

*Additional spaces are named for generous contributors of \$100,000 up to \$1 million. To name a space in the building or support the Opportunities Fund for Vision Research, please contact That Man May See at **415.476.4016** or thatmanmaysee.org. *

Recent Gifts for UCSF Ophthalmology

That Man May See thanks you for generous contributions and new pledges for the UCSF Department of Ophthalmology and Francis I. Proctor Foundation, made between November 27, 2018, and June 13, 2019. Gifts at every level make a difference.

Founder's Circle (\$10,000,000+)

Wayne and Gladys Valley Foundation

Legacy Leaders (\$5,000,000+)

Bernie Newcomb and
Gerry Marshall

Distinguished Contributors (\$1,000,000+)

David F. Chang, MD, and
Victoria A. Chang

Benefactors (\$500,000+)

Estate of Joy Madeline Berry
Glaucoma Research Foundation

Honored Patrons (\$250,000+)

Estate of A. Joan Holstius

Visionaries (\$100,000+)

Thomas and Johanna Baruch
Yean Lu, PhD, and
Mrs. Pongsri Lu
Don and Judy McCubbin
Research to Prevent Blindness
The David and Elva Sinai
Foundation, Inc.
Joan and David Traitel
Estate of Emilie H. Varnum

Entrepreneurs (\$50,000+)

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Eleanor W. Wong

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The Dauber Foundation
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Gloria and Saul Feldman
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Marya Wintroub

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Susan L. Leiter
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Chihori W. Lietman, MD
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Bob and Naomi Stamper
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Eric Zankman and Pamela Kaufmann

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Sandra Brown
Andrew F. Calman, MD, PhD
Chevron Humankind Program

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Narsai and Venus David
Hal Dawson and Mary McVey
Sue and John Diekman
John and Marilyn Dougery
Philip Marshall Durbrow
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Teri L. Flach
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Dr. and Mrs. Matthew M. LaVail
Stephanie LeGras
Tracy H. Lin and Charles C. Lin, MD
Rabbi Brian Lurie and
Ms. Caroline Fromm Lurie
Joan and Roger McGee
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Mary Pfeiffer Smith
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Masako Vacheron
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James and Barbara Willenborg
Diane Wilsey
Michael K. Yoon, MD, and June Yoon
Peggy and Lee Zeigler
Andrew Zwick

HOW TO REACH US

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Cornea Care
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Neuro-Ophthalmology
415.476.7176

Ocular Oncology Care
415.514.8722

Oculoplastic Surgery
415.353.2800

Pediatric Ophthalmology
415.353.2560

Proctor Medical Group
415.476.1442

Retinal Care
415.353.2800

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

Contact

Faculty News

Awardees of NIH Grants

Seventeen vision scientists in the Department of Ophthalmology and Proctor Foundation currently serve as principal investigators for 29 grants awarded by the US National Institutes of Health. In 2018, the merit of UCSF faculty research was reflected in the publication of more than 200 peer-reviewed articles in prestigious journals including *The New England Journal of Medicine*, *Nature Genetics*, *Neuron*, *Ophthalmology*, and *Proceedings of the National Academy of Sciences*. These insights and successes bring us closer to a world with sight for all.

Principal Investigators



Nisha R. Acharya,
MD, MS*

Uveitis and Inflammatory Disease



Armin R. Afshar,
MD, MBA

Ocular Oncology



Matilda F. Chan,
MD, PhD

Medical Cornea



Thuy Doan,
MD, PhD

Uveitis and the Ocular Biome

Jacque L. Duncan, MD
Retinal Degeneration



Felice Dunn,
PhD*

Retinal Physiology

John A. Gonzales, MD
Uveitis and Medical Cornea



Douglas B. Gould,
PhD*

Visual System Development and Glaucoma/Genetics

Ying Han, MD, PhD
Glaucoma

Jonathan C. Horton, MD, PhD
Neuro-ophthalmology

Jeremy D. Keenan, MD, MPH
Cornea and External Disease



Aparna Lakkaraju,
PhD

Macular Degeneration/Cellular Biology

Deepak Lamba, PhD
Retinal Degeneration/Neurobiology,
Bio-engineering

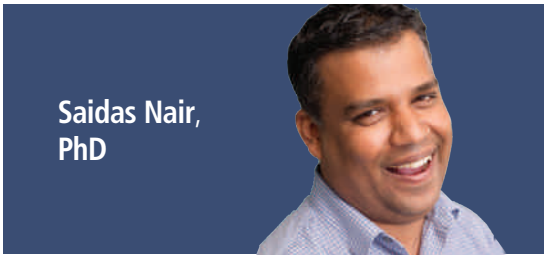


Thomas M. Lietman,
MD*

Cornea, External Disease, and Epidemiology

Maxence Nachury, PhD*
Bardet-Biedl Syndrome/Molecular Biology

*Multiple NIH grants



Glaucoma and Myopia/Genetics

Catherine E. Oldenburg, PhD, MPH
Epidemiology

Yvonne Ou, MD
Glaucoma

Travis C. Porco, PhD, MPH
Epidemiology

Jay M. Stewart, MD
Vitreoretinal Disease



Visual System Development and Glaucoma

Faculty Honors



Career Development Award Research to Prevent Blindness
Catherine Oldenburg, ScD, MPH

Dr. Oldenburg evaluates an antibiotics intervention that may lead to trachoma elimination in an Ethiopian area with the world’s highest infection rate.



2020 Cogan Award Association for Research in Vision and Ophthalmology
Maxence Nachury, PhD

The award recognizes Dr. Nachury as an outstanding young researcher who has made “important and worthwhile contributions to research...directly related to disorders of the human eye or visual system, and who shows substantial promise for future contributions.”



Invited Lecturer Royal College of Ophthalmologists Annual Congress, Glasgow
Anthony Moore, MD, FMedSci

In Memoriam



Gracious friend to That Man May See, Elizabeth Callander “Betty” Tight

A native San Franciscan, Betty Tight was one of That Man May See’s best advocates. As a young woman she studied art at Stanford University and pursued postgraduate studies at the Art Center College of Design in Pasadena. She was an accomplished artist.

Betty thoroughly enjoyed Northern California’s great outdoors as well as her own beautiful garden. She was deeply involved in civic and religious service organizations over the years, both in San Francisco and Woodside, where she lived for many years.

The love of Betty’s life was the late Dexter “Ted” Tight, who long served on the board of That Man May See. Her family requests that donations be made in Betty’s name to That Man May See.

VISION is produced by **That Man May See**, 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.
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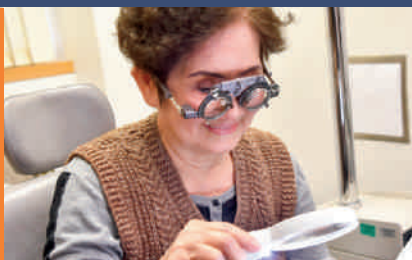
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Top Three Nationwide Receipt of NIH Funds

UCSF Ophthalmology ranks third in the nation in research funds granted for vision science by the National Institutes of Health (NIH) in the past year.

The highly competitive awards demonstrate the exceptional nature of research underway at the Department of Ophthalmology and the Francis I. Proctor Foundation for Research in Ophthalmology.

These grants are essential for the in-depth investigations that advance novel sight-saving solutions.

Private donors who fund essential pilot studies see the value of their gifts multiplied when studies gain sustenance with multi-year NIH resources.

Full Speed Ahead

Diverse inquiries underway include multiyear investigations into retinal regeneration, genetic strategies to halt glaucoma, advanced imaging and clinical trials that assess novel treatments, and "big data" programs to drive novel solutions and track progress toward the elimination of global sight threats.

"These awards reflect innovation and productivity by dozens of highly trained faculty and postdoctoral scientists," says **Tom Lietman, MD**, director of the Proctor Foundation.

The vision science faculty leading current NIH-funded research investigations are listed on pages 10 and 11.



Dr. Yvonne Ou

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