Vision

2022 Summer

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

Celebrate the Past, Welcome the Future

Change in leadership

The UCSF Department of Ophthalmology, led by **Stephen D. McLeod, MD**, since 2007, has flourished and grown in excellence and reputation during his tenure. Based on his outsize achievements and effective leadership, Dr. McLeod was recently selected to serve as the new Chief Executive Officer of the American Academy of Ophthalmology.

UCSF Dean Talmadge E. King, Jr, MD, appointed Jacque Duncan, MD, as Interim Chair. Although Dr. McLeod found it difficult to step away from what he calls "a wonderful department," he had this to say: "I was confident that, with the strength of our current faculty, our programs, and our leadership, it was absolutely the right time." Continued on page 2

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Gould Syndrome – Searching for answers

Focal Point

Dear Friends,

Thank you for the warm welcome to my new role as Interim Chair of the Department of Ophthalmology. It is a great honor to follow Dr. Stephen McLeod, someone I was privileged to train with and to work alongside throughout my career.

Many studies have concluded that humble leaders listen more effectively, inspire teamwork, and focus everyone on organizational rather than individual goals. Dr. McLeod personifies that ideal, and he dedicated himself to promoting and supporting those fortunate enough to work with him.

I am excited to lead our talented faculty, including clinician scientists and laboratory

researchers, at the renowned Wayne and Gladys Valley Center for Vision. Together we will continue to push the boundaries and transform patient care with discoveries to reduce vision loss worldwide.

Thank you for your generous support of our efforts. I look forward to seeing you at the Valley Center for Vision.

Sincerely,

Jacque Duncan, MD Steven G. Kramer, MD, PhD, Endowed Chair in Ophthalmology

Celebrate the Past, Welcome the Future continued

Support foundation plans for future

That Man May See, the support foundation for the UCSF Department of Ophthalmology, has rebranded as All May See Foundation. After 50 years of impact, the foundation is retooling for an even brighter future. To keep patients better informed, All May See rethought its approach to its website, *Vision* magazine, and how they work together.

Introducing QR codes

QR codes are square barcodes that allow readers to quickly access additional content online. Just scan the code with the camera

app on your smartphone or tablet and click the link that appears on screen. This one links to All May See's home page. Enjoy!



Dr. Jacque Duncan Takes the Lead

Bringing a wealth of expertise

Senior faculty member **Jacque Duncan**, **MD**, has been appointed Interim Chair for the Department of Ophthalmology. She will also serve as Vice Chair of the All May See Foundation Board of Directors.

As a renowned specialist in inherited retinal diseases, Dr. Duncan cares for patients with progressive, blinding disorders including macular degeneration, retinitis pigmentosa, and other inherited retinal degenerations. Her groundbreaking research has deepened understanding of photoreceptor cells.

Dr. Duncan continues to press toward solutions, including treatments to preserve vision and devices that can stimulate patients' visual perception. She is a principal investigator in a bold federal initiative to monitor vision cells in response to a new treatment that may slow vision loss.

Her efforts have long attracted support from a constellation of private foundations, the U.S. Food and Drug Administration, and the National Eye Institute. More than 150 of her investigations have been published in peer-reviewed journals.

UCSF medical school, UCSF internship, and a UCSF ophthalmology residency followed success at Stanford University, where Dr. Duncan graduated with honors and distinction in Biological Sciences.

After a fellowship in Medical Retina at the University of Pennsylvania, Dr. Duncan joined the UCSF faculty in 2000. As a junior faculty member, she trained with giants in vision science, including basic researchers **Matt** LaVail, PhD, and David Copenhagen, PhD; and clinician scientists Michael Drake, MD; Creig Hoyt, MD; Alex Irvine, MD; and Daniel Schwartz, MD.

Since 2015 Dr. Duncan has served as Chair of the Scientific Advisory Board of the Foundation Fighting Blindness. In 2016, she helped that organization create a consortium of 40 clinical centers of excellence – 28 in the United States and 12 around the world – to conduct clinical trials in inherited retinal degenerations. Foundation Fighting Blindness recently honored her with its Visionary Award.

Married for 26 years, Dr. Duncan likes to give her husband Keith appreciation for supporting her career and helping to raise their lovely daughter Sydney. [©]



Dr. Duncan monitors and researches disease progression in patients with macular degeneration.

Farewell to Dr. Stephen McLeod

Departing thoughts on a bold tenure



Stephen D. McLeod, MD, Theresa M. and Wayne M. Caygill, MD, Distinguished Professor, joined the UCSF Department of Ophthalmology in 2002 and served as department chair for 15 years. All May See asked him to share some thoughts.

What makes ophthalmology special?

All patient care is tremendously gratifying, but ophthalmology has developed advanced surgical procedures that can halt or reverse disease processes. These successes inspire us to pursue effective treatments for conditions that remain a significant challenge.

How have tech advances altered the field? In a golden age for science and technology, ophthalmology has been at the forefront in applications of new discoveries in biology, genetics and gene therapy, bioengineering and bioinformatics. Diagnostic tools, surgical devices and procedures, pharmaceuticals, and our ability to aggregate and analyze medical data for better decision making have all been transformed. The University of California and UCSF itself played enormous roles in these technological advances.

What advice has best served you?

In academic medicine, we care for patients, teach, do research, take on management, and contribute as best we can to our community. My first cornea professor, Dr. Joel Sugar, taught me that patients are always our first responsibility.

How did UCSF win your heart?

After medical training on the East Coast, a UCSF faculty position was my dream job. This is an incredible intellectual community – productive, supportive, collaborative, with ready access to leading science and technology, outstanding patient care, and a commitment to global well-being.

What is your greatest professional accomplishment?

I would say playing a role in the growth of one of the leading ophthalmology departments in the country. UCSF Ophthalmology now offers phenomenal patient care, the most highly sought and successful training programs, and the leading vision research program in the nation. Beyond that, I'm so proud that the department has a culture of compassion and generosity and integrity.

Anything you would like to add?

It has been an immense privilege to serve as department chair for over a decade and a half, and I'm truly excited to see our department evolve over the coming years. [©]

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Tributes to a remarkable leader

"Without question you built one of the most important and successful departments of ophthalmology in the world." **Dr. Talmadge King, Jr,** Dean, UCSF School of Medicine

"You transformed our department – doubling faculty, expanding diversity, and envisioning a beautiful new facility." **Dr. Jacque Duncan**, Interim Chair, Department of Ophthalmology

"You strengthened the Proctor Foundation, helping it flourish." Dr. Thomas M. Lietman, Director, Proctor Foundation

"Yours was the best chair tenure in our history." Dr. Creig Hoyt, Department Chair Emeritus

"From all the faculty who started here as residents, thank you for believing in us, training us, and believing in us again." **Dr. Bryan Winn**, Director, San Francisco VA Eye Service

"You created a culture of collaboration and maintained the highest standards of education, patient care, and research." **Dr. Saras Ramanathan**, Chief, Comprehensive Ophthalmology

"Your stature and leadership brought me across the country to serve this institution." **Deborah Chesky**, President, All May See Foundation

"You've made a difference in so many lives, and your board guidance will be felt for a long time." John de Benedetti, Board Chair, All May See Foundation

"Your passion inspired us to achieve more than we ever could have imagined."

Kathleen Rydar, President Emerita, All May See Foundation

"Working alongside you to build this outstanding research group has been an honor." Dr. Douglas Gould, Professor, Vice Chair for Research

"As department chair, *Ophthalmology* chief editor, and now as AAO's CEO, you've always epitomized outstanding leadership." **Dr. David F. Chang**, Clinical Professor, former resident















Explore milestones in UCSF Ophthalmology and learn how donors make a difference at **allmaysee.org/who-we-are**



To access the webpage quickly, scan this QR code with your mobile device.

50 Years

Looking forward, looking back

Founded in 1971, **All May See Foundation** is the new, more inclusive name recently announced for That Man May See – the support foundation for UCSF Ophthalmology. The change is accompanied by a re-imagined website and designed to increase donor engagement and support excellence in vision science over the next 50 years. Change and achievement are in the foundation's DNA.

Launched by two UCSF ophthalmologists to hasten solutions for sight loss and blindness, the foundation continues to jump start the bold initiatives of an accomplished faculty. Individual donors play an essential role in the discoveries and milestones achieved at the Department of Ophthalmology and the Francis I. Proctor Foundation for Research in Ophthalmology.

The foundation's small, dedicated fundraising staff has been led by eight professionals, and twelve distinguished volunteers have chaired its board of directors. At this golden anniversary, four of these leaders offer their thoughts.

Current president **Deborah Chesky** relocated from New York to lead All May See Foundation just as COVID-19 closed down the nation. She is inspired to save and restore sight based on her experiences with loved ones who struggled with corneal disease, saying, "I am passionate about raising funds needed for discoveries and breakthroughs so that others can be spared hardship and suffering." Deborah has made communications a focus, leading development of a more robust website, e-bulletins on eye health, and an expanded social media presence.

Poised to lead the organization beyond the COVID crisis, Deborah is eager to meet with the foundation's many friends and donors. Hosting safe, live events and making community connections are top priorities.

Current board chair John de Benedetti and wife Nina Srejovic have been involved with the foundation for decades, with John serving on the board since 1996. This amazing commitment stems from John's own experience of sight loss and decades of UCSF vision care. Scar tissue from a viral eye infection at age 11 severely reduced John's sight. The family established a fund devoted to vision research.

"We're so honored to be a part of such a wonderful organization, dedicated to saving and restoring sight," says John. "Through groundbreaking research and expert care, UCSF vision specialists have improved my limited sight. Their team inspires us every day to continue to raise awareness and help support their trailblazing work."

Kathleen Rydar, president from 2004 to 2020, led the foundation through numerous successes and milestone events, including the \$188 million capital campaign to build the Wayne and Gladys Valley Center for Vision at Mission Bay. A lead gift from the Koret Foundation advanced the state-ofthe-art facility. Kathleen expresses her

Continued on page 8



Deborah Chesky President 2020 to present



John de Benedetti Board Chair 2017 to present



Kathleen Rydar President 2004-2020



Thomas Wood Boyden President 1994-2004



Steven Ast **Executive Director** 1975-1978

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Resident Class of 2025



1. Sachin Patel, MD, PhD

MD, PhD: Harvard University (Biological and Biomedical Sciences) Internship: UCSF College: Harvard University (Chemical and Physical Biology) Birthplace: Michigan

2. Eugenia Custo Greig, MD

MD: Yale University Internship: UCSF College: Yale University (Comparative Literature) Birthplace: Argentina

Liangbo (Linus) Shen, MD MD: Yale University Internship: UCSF College: Duke University

(Biomedical Engineering) Birthplace: China

4. Yesde (Esther) Son, MD, PhD PhD: Harvard University

MD: Harvard University (Molecular and Cellular Biology) MD: Stanford University Internship: UCSF College: Cambridge University (Chemistry) Birthplace: South Korea

5. Evan Chen, MD

MD: Yale University Internship: UCSF College: Yale University (Biomedical Engineering) Birthplace: Minnesota

50 Years continued from page 7

admiration for UCSF's vision scientists: "Their research and patient care make a huge difference for people, in northern California and around the world."

Thomas Wood Boyden, Kathleen's late husband, served as president for ten years. "To Tom, this work wasn't just about fundraising," she remembers. "It was about building community." Steven Ast, executive director from 1975 to 1978, deeply respected founders Michael Hogan, MD, and Samuel Kimura, MD. Working with these "wonderful, insightful men," he says, "was the most fun I ever had." Steven felt his greatest accomplishments included expanding awareness and visibility of the foundation and educating others on the urgency of its mission – to save and restore sight. [©]

Clinical Fellows Class of 2022



1. Christine Benador-Shen, MD Uveitis MD: Northwestern University

Residency: Tufts University Birthplace: Ohio

2. Youning Zhang, MD Vitreoretinal Surgery

MD: University of Southern California Residency: University of Southern California Birthplace: China

3. Hui Zhao, MD, PhD

Cornea MD: Zhejiang University PhD: Shanghai Jiao Tong University Residency: Washington University Birthplace: China 4. Murtaza Saifee, MD

Glaucoma MD: Baylor University Residency: UCSF Birthplace: California

5. Adrian Tsang, MD

Uveitis MD: University of Ottawa Residency: University of Ottawa Birthplace: Canada

6. Meleha Ahmad, MD, MS

Oculoplastics MD: New York University MS: New York University Residency: Johns Hopkins University Birthplace: Texas

All May See Foundation is a 501(c)3 public charity dedicated to curing and preventing blindness, serious eye diseases, and visual impairment so that everyone in the world can see.

Special thanks to Kurt Noble, Inc., and Zwilly Advertising and Branding (pro bono) for artistic vision in redesigning *Vision* magazine and the All May See Foundation website to better serve sight-impaired readers.



Super Award Propels Career

Mentorship leads to \$1 million research launch

Tyson Kim, MD, PhD, built his own microscope when he joined UCSF Ophthalmology in 2019. His engineered and optimized multiphoton microscope allows him to investigate disease development in the living eye with unprecedented detail.

Just one year after he began the department's mentorship program, his early findings with the novel tool garnered a \$1 million, five-year award from the National Eye Institute at the National Institutes of Health. "The program is designed to achieve these kinds of results," says Dr. Kim, "and it worked beautifully."

Mentorship was crucial to setting up his own laboratory and getting investigations up and running. Senior mentor **Douglas Gould, PhD,** along with a faculty advisory team and mentors at other institutions helped Dr. Kim understand and put in place many daunting technical processes.

In the clinic, Dr. Kim enjoys serving a range of corneal patients. At the same time, he strongly believes that his greatest contributions will come through his research. By innovating technologies to more deeply understand vision disorders, he seeks new therapeutic approaches to counter sight loss.

This young vision scientist is elucidating how abnormal blood vessels develop in the eye. His discoveries were made possible by examining diseased living eyes at the subcellular level with the novel microscope. Proliferation of abnormal blood vessels causes sight loss in diabetic retinopathy, wet macular degeneration, retinopathy of prematurity, and other vision disorders.

"Dr. Kim's innovative microscopy will become widely used for vision research and even clinical ophthalmology in the future," says Dr. Gould. "With its incredible resolution, we can see the structures and functions of ocular tissues in ways that were not previously possible." The research

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Dr. Kim's innovative microscopy will become widely used for vision research and even clinical ophthalmology in the future."

- Dr. Douglas Gould



Mentorship over many years supported Dr. Kim in his pursuit of a meaningful career in vision science.

has also attracted private funding from Research to Prevent Blindness Foundation and BrightFocus Foundation.

Dr. Kim knows he is fortunate to pursue his dreams at this level. "Mentorship over many years allowed my skills, creativity, and confidence to flourish," he says. "I am grateful and eager to reciprocate by supporting the next generation of vision scientists." [©] See how a special ophthalmology mentorship grant prepares young researchers for success: **allmaysee**. **org/blog/mentorship-builds-success**



Raising Hope for Gould Syndrome

About one third of infants born with Gould Syndrome have cataracts at birth or developmental defects that can lead to early-onset glaucoma. The syndrome is named for geneticist **Douglas Gould, PhD,** in recognition of his discovery of and his lab's work on this rare, multisystem disorder. It is caused by mutations in collagen genes *COL4A1* and *COL4A2*.

All May See Foundation is bringing attention and raising funds to tackle this disease. A generous match gift of \$125,000 from an anonymous Texas family, whose 9-year-old son was recently diagnosed with Gould Syndrome, is inspiring the campaign.

"This awareness and fundraising campaign will support our work to better understand the mechanisms underlying this disease," says Dr. Gould.

Gould Syndrome is often identified at or soon after birth, due to brain hemorrhages that can lead to cerebral cavities or epilepsy. Abnormal blood vessels in the brain, eye development defects and glaucoma, muscle disease, and kidney abnormalities can all characterize the syndrome. As genetic screening becomes more common, the number of individuals diagnosed continues to climb.

Dr. Gould is optimistic about finding solutions. His team explores therapeutic avenues such as CRISPR gene-editing technology, which holds promise for preventing, reducing, or delaying symptoms.



This section of a brain shows scattered microbleeds (bright green dye), modeling cerebrovascular disease observed in patients with Gould Syndrome.

Beyond this genetic condition, investigation into Gould Syndrome will deepen insight into how proteins in the extracellular matrix contribute to healthy ocular development and disease. [•]

Dr. Gould serves as Professor and Vice Chair for Research for the Department of Ophthalmology and holds the Denise B. Evans Endowed Chair in Ophthalmology.

A generous donor will match gifts up to \$125,000, doubling the impact of each contribution. To help solve this sight-destroying disease, please visit **allmaysee.org/donate**

Alumni Highlight

Endowed chair honors pioneer

On a visit to Kathmandu in the 1960s, UCSF Department of Ophthalmology professor emeritus **John P. Whitcher, MD**, began a journey to improve vision in the world's most medically underserved areas.

Known as "Jack" to everyone, Dr. Whitcher led international research at the Proctor Foundation for more than four decades, serving as director from 1995 to 1999. His tireless efforts have improved the lives of countless people and communities.

This international team, now under the leadership of **Jeremy Keenan**, **MD**, collaborates with in-country Ministries of Health and international partners to investigate and reduce sight loss. The team has focused on corneal ulcers in India and Nepal and trachoma in Ethiopia and Niger.

Dr. Whitcher forged a unique partnership with Aravind Eye Care System in southern India, becoming the envy of many U.S. eye institutions. A high occurrence of visionimpairing corneal ulcers made it ideal for investigating the condition. Supported by the National Institutes of Health, Dr. Whitcher led multiple clinical trials on cataracts and corneal ulcers, with major and impactful findings.

Dr. Whitcher's most remarkable contribution, however, is mentorship – he taught generations of ophthalmology residents and fellows, becoming father figure, grandfather figure, and even a wedding groomsman. Funds for this endowed



Dr. Jack Whitcher (left) worked with myriad allies to reduce sight loss across Asia, Africa, and the United States.

chair were donated by his former patients, students, and colleagues.

Dr. Keenan is the first holder of the John P. Whitcher Endowed Chair. He follows his mentor as a dedicated leader in the search for global vision solutions.

According to Proctor Foundation Director **Tom Lietman, MD,** "No one embodies the spirit of this chair more than Jeremy. He's the perfect recipient." [©]

Gifts are needed to establish an annual lecture in global medicine honoring Dr. Whitcher. All May See is grateful for a lead gift from Dr. Emmett T. Cunningham. Please visit **allmaysee.org/donate.**

Meet Our New Faculty



Neel D. Pasricha, MD

Dr. Pasricha joins the Department of Ophthalmology as a cornea specialist. **Cornea, External Disease, and Refractive Surgery Fellowship:** Bascom Palmer Eye Institute **Residency:** UCSF **MD:** Duke University



Jing (Meghan) Shan, MD, PhD

Dr. Shan joins the Department of Ophthalmology as a glaucoma physicianengineer. **Glaucoma Fellowship:** UCSF

Residency: University of Southern California

MD: Harvard University

PhD in Medical Engineering, Medical Physics: Massachusetts Institute of Technology

What excites you about your appointment?

I appreciate all the academic pillars – teaching, research, and patient care. It's a privilege to collaborate with colleagues and trainees. I love operating, including cataract surgery, corneal transplantation, and ocular surface reconstruction. Teaching is probably the most important thing I do because it affects countless patients.

How do you offer hope to dry eye patients?

Measuring electrical changes caused by ions on the ocular surface in the tears is a novel approach that may lead to more effective therapies.

You were voted Fellow of the Year at Bascom Palmer. Why?

I tried putting myself in the residents' shoes, providing them with expertise on the fly, little gems they could apply immediately.

How can artificial intelligence (AI) improve glaucoma care?

By developing AI tools to quickly and accurately analyze high volumes of test results, I aim to contribute to wide-spread glaucoma screening and referrals for early treatment.

What are your priorities at UCSF?

I seek to help patients live the best lives they can. I'm passionate about glaucoma because, although it's devastating, we can prevent sight loss. Through research, I want to advance innovations that benefit patients. I've also long been interested in teaching, with mentorship as a key aspect of clinical training.

How does it feel to join this highly regarded UCSF faculty?

It's quite an honor to work alongside glaucoma mentors who inspired me during my fellowship and made me who I am.



Jessica Shantha, MD, MS

Dr. Shantha joins the Proctor Foundation as a uveitis specialist. **Prior Employment:** Emory University, Morehouse University **Uveitis and Medical Retina Fellowships:** UCSF Proctor Foundation, Retina Consultants of Hawaii **Residency and MS:** Emory University **MD:** Morehouse University



What are the primary aims of your research?

I'm interested in determining unknown risk factors for ocular complications of emerging infectious diseases. I've collaborated to evaluate the retina as a novel biomarker for monitoring systemic vascular disease in persons living with HIV.

What do you appreciate about your clinical focus? The conditions I treat are challenging and often chronic. It's fascinating to listen to patients and problem solve, often in collaboration with other experts in other specialties.



Manvi Prakash Maker, MD, MS

Dr. Maker joins the Department of Ophthalmology as a comprehensive ophthalmologist.

Prior Employment: University of Chicago, NorthShore University Health System Retinal Disease, Diabetic Retinopathy, and Medical Education Fellowships:

University of Chicago, Harvard University **Residency:** Medical College of Wisconsin **MD**, **MS:** Wayne State University

Why did you choose UCSF?

This institution provides an amazing opportunity to learn and grow, working alongside top-caliber vision scientists.

How do you aim to address diabetic eye conditions? Diabetes is a worldwide epidemic and a major threat to sight. Laser treatments slow sight loss, but patients need better solutions. I'm eager to help.

How did your training shape your career path?

Working with underserved patients with advanced eye conditions in Detroit was gratifying and piqued my interest in global care. I plan to bring sight-saving surgery to those with the least.

How did mentors and patients help you learn? Mentorship is the only way to really learn complex procedures. And my patients were so supportive as I trained! I'm very grateful.



Madeline Yung, MD

Dr. Yung joins the Department of Ophthalmology as a comprehensive ophthalmologist. **Cornea Fellowship:** UC Davis **Residency:** UCLA **MD:** UCLA



Frank Brodie, MD, MBA

Dr. Brodie joins the Department of Ophthalmology as a vitreoretinal disease specialist. Vitreoretinal Surgery and Innovation Fellowships: Duke University, Stanford University Residency: UCSF MD/MBA: University of Pennsylvania

How did you become interested in medicine?

My mother was a nurse – her ability to provide care for our neighbors impressed me as a child.

Which research interest are you currently pursuing? I characterize molecules that can help kill bacteria, fungi, and viruses in corneal tissue, aiming to find novel ways to

and viruses in corneal tissue, aiming to find novel ways to prevent infections after corneal transplantations.

What are your goals at UCSF?

My passion to help train vision scientists tops the list! I am also committed to deepening my own skills to maximize my contribution to vision science. Learning never stops.

What are your ideas for improving resident training?

Increasing resident engagement on clinical teams is key, so that they feel the deep rewards of changing patients' lives.

What inspired you to pursue ophthalmology?

Family! I grew up hearing about the satisfactions of serving eye patients from my uncle, Dr. Daniel Schwartz, and my grandfather, Dr. Ariah Schwartz – both practiced at UCSF!

What happened to the 3D-printed glasses you developed as a resident?

With Dr. de Alba, we started Loving Eyes Foundation to provide these glasses to any child who needs them. They allow us to fit children with unusual skull shapes and other developmental issues.

What are your overarching research goals?

I want to develop novel ways to prevent and treat retinal detachment, among other interests.

Was innovation always part of your career plan?

I've always enjoyed finding problems and collaborating to find solutions, so yes.

Read expanded faculty Q&A: allmaysee.org/blog/ meet-our-new-faculty



More Than Meets the Eye

Exploring links between sleep and eye disorders

In his clinical work at the San Francisco VA Health Care System, ophthalmologist **Bryan Winn, MD**, keeps a close watch on factors that modulate veterans' eye health and disease, such as diet, exercise, and sleep. In obstructive sleep apnea, breathing repeatedly diminishes or halts during sleep. The condition can damage the brain, the heart, lungs, nervous system, and more.

After observing a correlation between sleep apnea and certain eye disorders in his patients, Dr. Winn began investigating. Early evidence shows significant connections between sleep apnea and normal-tension glaucoma, macular degeneration, and floppy eyelid syndrome.

Dr. Winn collaborates with VA Data Core Director **Mary Whooley**, **MD**, and VA Sleep Center Director **Kathleen Sarmiento**, **MD**, **MPH**, to design research that will deepen understanding of this link and the impact of sleep apnea treatment on these disorders.

The U.S. Department of Veterans Affairs database is a research treasure, with two decades of medical records on more than 20 million veterans, including a million-plus vets who participated in sleep studies. More than 800,000 service members have also had their genomes sequenced.

The UCSF-VA team hopes to explore relationships between genetic mutations, sleep apnea, and ocular disorders. Working with mathematicians and programmers, the team will develop computational strategies



To treat sleep apnea, a continuous positive airway pressure (CPAP) machine provides consistent air pressure to maintain an open airway.

to extract and analyze the medical records. Dr. Winn expects the investigation to confirm observed correlations and reveal the significance of other factors, such as body-mass index.

"Genetic correlations may help us uncover the pathophysiology that links these disorders," says Dr. Winn. "This can lead to novel treatments." He is excited to dive deep for answers that can transform patients' vision and lives. [©]

An oculoplastic and orbital surgeon, Dr. Winn directs the SF VA Health Care System's eye care division, which serves 17,000 veterans each year.



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On the Front Lines with COVID-19

The 2020 outbreak of COVID-19 sparked UCSF investigations into viral transmission and strategies to provide robust clinical care and reduce hospitalizations. Here are updates on three initiatives.

Progress on home testing

Glaucoma specialist **Yvonne Ou**, **MD**, and data scientist **Michael Deiner**, **PhD**, co-developed a visual field test for home, using an inexpensive virtual reality headset. Usually administered on a computer at the clinic, visual field testing, called perimetry, assesses progression of glaucoma and retinal degenerations. Patients look at a dark screen and indicate each time they see a bright dot anywhere in the field.

During summer 2020, patients were given headsets installed with Vivid Vision oculokinetic perimetry software during clinic or through home delivery. After remote training via Zoom, a 72-year-old glaucoma patient conducted daily self-assessments of the novel test at home, with repeatable results. Further investigation determined the Vivid Vision test is faster and shows reliability comparable to conventional perimetry.

This research suggests that the novel technology can be employed by clinicians, allowing glaucoma patients to self-assess their visual function at home (published in *Ophthalmology Science*, 2021, Dec 20, and *Ophthalmology*, 2020 Jun 11).



Custom software loaded onto a VR headset allows a glaucoma patient to test their own visual function.

Azithromycin failed to reduce hospitalizations

Catherine Oldenburg, ScD, MPH, and **Thuy Doan, MD, PhD,** co-led a team of clinician scientists, nurses, public health specialists, mathematical modelers, and medical students in a randomized clinical trial. The privately funded study set out to determine whether a single dose of the antibiotic azithromycin could reduce hospitalizations among US patients infected with SARS-CoV-2. Quickly finding that azithromycin was ineffective for this use, researchers discontinued the study (published in *JAMA*, 2021 July 16).

Impact of drive-through service

A team led by **Gerami Seitzman**, **MD**, and **Julie Schallhorn**, **MD**, **MS**, assessed the effectiveness of a drive-through clinical service. Doctors took intraocular pressure readings of patients who remained in their cars, reducing viral contact. For patients with vision-threatening diseases such as glaucoma, increases in eye pressure can require immediate attention.

In the nine-week study, 30 percent of the intraocular pressure readings resulted in a change in treatment (published in *JAMA Ophthalmology*, 2021 Mar 1). [©]

Faculty News



Top teaching honor

Gerami Seitzman, MD, has received one of UCSF Medical School's most prestigious teaching honors – the Henry J. Kaiser Award for Excellence in Teaching, Excellence in Ambulatory Care Setting, chosen by medical students. Given that only 20 percent of students rotate through ophthalmology, this achievement is particularly notable.

How to Reach Us

UCSF Department of Ophthalmology

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Francis I. Proctor Foundation for Research in Ophthalmology

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Comprehensive Eye Center (415)353-2800 Routine eye care, acute care, eye disease referrals Eyeglasses and Contact Lenses (415)476-3100

Cataract Care (415)353-2800

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)353-2800

Proctor Medical Group (415)476-1442

Retinal Care (415)353-2800

Vision Correction Surgery Center (415)353-2020 Individualized surgery, including LASIK and PRK



Recent publications

The ophthalmology faculty, supported by graduate students and postdoctoral researchers, publishes hundreds of peer-reviewed research findings annually in leading journals.

Recent publications and selected authors include the following:

- Progress on regenerating the retina for sight restoration, Stem Cell Reports Deepak Lamba, PhD; Kathleen R. Chirco, PhD
- 2. Biomarkers for primary open-angle glaucoma progression, *Ophthalmology* | *Glaucoma* Ying Han, MD, PhD; Mengya Zhao, PhD
- 3. Treatment for **corneal neuropathic pain**, *Frontiers in Pharmacology* John Gonzales, MD; Jeremy Nortey, MD
- Water, sanitation, and hygiene for control of trachoma in Ethiopia, Lancet | Global Health Jeremy Keenan, MD, MPH; Solomon Aragie, PhD

Interested in exploring recent vision science publications? Visit the Department of Ophthalmology's website to learn more: ophthalmology.ucsf.edu/publications



In Memoriam

Angus Lloyd MacLean, Jr.



All May See Foundation lost a great hero with the passing of Angus Lloyd MacLean, Jr. in September 2021 at the age of 90. Angus grew

up in Baltimore and was the son of a renowned Johns Hopkins eye surgeon.

He was a graduate of Brown University and was inducted into the Brown University Athletic Hall of Fame for wrestling. Angus began his career with Coldwell Banker Commercial Brokerage Company, where his last role was as founder and president of the Real Estate Investment Banking Division. He left Coldwell Banker to become a Managing Director and Senior Vice President at Kidder Peabody.

While a member of many civic and community groups, Angus, having been raised by an eye surgeon who devoted his life to eradicating blindness, was particularly proud and honored to serve on the Board of Directors of That Man May See from 1995 to 2018, including a term as Chair of the Board. In 2018, he was named an Honorary Board Member. Angus is responsible for recruiting current Chair John de Benedetti to our board more than 20 years ago.

Angus is survived by his wife of 62 years, Virginia (Ginny) MacLean, three children, six grandchildren, two siblings along with an extended family and friends.

The family requests remembrances be sent to All May See Foundation.



Editorial Board

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Successful Swim Funds Vision Research

To advance vision research, event hosts Lorie and Ron Hirson, along with 40 other swimmers, braved the chilly waters and currents of the San Francisco Bay in a swim from Alcatraz to San Francisco's Aquatic Park last October.

With this tenth anniversary Alcatraz Swim for Sight, swimmers raised more than \$300,000 for vision research. The event has now donated close to \$1 million to All May See Foundation (previously That Man May See) to support UCSF faculty research toward new treatments and cures for blindness. Lorie and Ron are long-serving directors on the board of All May See Foundation and founded this event. Like a number of participants, Lorie is sight impaired. Family members often guide low-vision participants or swim on their behalf. **@**

Top: All May See board members and vision science faculty celebrate the event. From left: Dr. Jacque Duncan, Ron and Lorie Hirson, Deborah Chesky, Dr. Alejandra de Alba Campomanes, Robert Savoie, and Dr. Stephen McLeod





Swimmers ranged in age from 15 to 80 plus! Left: Jerry Jacobs (on right) congratulates wife Lois Jacobs and Levy Gerzberg. Top right: Kimberly McKellar hugs daughter Alex Gratch. Bottom right: Swimmers crowd an early morning boat, heading to the jump site along Alcatraz Island.





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Letter from the President of All May See

In my inaugural letter to *Vision* readers, I want to express how grateful we are to you, our donors, for your generous support.

I am proud to lead this organization, which marked its 50th anniversary without fanfare. When it is safe to gather, we will hold a celebration of this impressive milestone.

Our recent Alcatraz Swim for Sight raised more than \$300,000 for research. The funds support seven initiatives, ranging from neurobiology to advanced imaging. Great thanks to all involved, especially organizers and swimmers extraordinaire, Lorie and Ron Hirson. Change is at the heart of All May See, and our new name carries the same deep commitment to vision for all.

As we welcome Dr. Duncan as interim chair, we also wish Dr. McLeod the best with his new national leadership role in ophthalmology.



Sincerely,

Dehna J Chesky

Deborah Chesky LMSW, MBA, CFRE President, All May See Foundation



The Future of Vision Is Vision for All Make a gift at allmaysee.org/donate