CALL TO ACTION

ANNUAL REPORT 2023
Global leadership in saving sight.

To improve vision-related quality of life by collaboratively creating, integrating, transmitting, and applying knowledge in ophthalmology and visual sciences.
Dear Friends,

As I reflect back on the year that was, I continue to repetitively contemplate a single word: "ACTION."

Throughout 2023, our department remained steadfast in its commitment to saving sight and providing hope. We dedicated our time and efforts to finding new cures for eye diseases, educating the next generation of vision care and vision science leaders and advocates, and caring for our patients with compassion and humility – as well as with the latest treatments and technologies. I am proud – and humbled – by the multiple ways our clinical and research ophthalmologists and optometrists, research faculty, scientists, clinical administrative leaders, clinical staff, educators, learners and community partners have all worked in intentional and supportive collaboration to achieve this objective.

In our 2023 annual report, please note the impact that our collective actions make every day. In the pages that follow, you’ll read about:

• Novel research that will utilize gene editing therapy to treat two inherited retinal degenerative diseases known to cause blindness.
• Our department’s very first formal Anterior Segment and Cornea fellow who gives back to her home community in the Philippines by treating more than just her patients’ eyes.
• A new clinical trial that offers the possibility for a less invasive, highly effective treatment for patients with wet age-related macular degeneration, the leading cause of blindness in the United States.
• The opening of our brand new, state-of-the-art Surgical Skills Training Facility.
• Updates from our world-renowned Wisconsin Reading Center, and our Vision Rehabilitation Service.
• And much more!

Of course, we could not do any of this impressive work without your ongoing support. As a friend of the department, I thank you for your continued partnership. I also call upon you to take action in support of our mission. Please consider making a charitable donation to an endeavor that speaks to your heart. When we work together, anything is possible!

Thank you, and On Wisconsin!

TERRI YOUNG, MD, MBA
Department Chair
Peter A. Duey Professor of Ophthalmology, Pediatrics and Medical Genetics

Do your little bit of good where you are; it is those little bits of good put together that overwhelm the world.

~ Archbishop Desmond Tutu
THE YEAR IN PHOTOS

2022

DECEMBER
Ahmara Ross, MD, PhD, from Scheie Eye Institute, presents "Glaucoma: Past, Present, and Future" at the "Frontiers in Vision Research" lecture series. Ross (center) is joined by Department Chair, Terri Young, MD, MBA and Nader Sheibani, PhD.

2023

JANUARY
Residents participate in a global fieldwork simulation wet lab in the new state-of-the-art Surgical Skills Training Facility.

2022

OCTOBER
Faculty and staff participate in the annual Right to Sight Clinic at the University Station Clinic in Madison, Wis.

2023

MAY
Ophthalmology resident Kevin Elwood, MD and ophthalmology alum Tyler Boulter, MD complete a rotation at the Tzu Chi Eye Center, the University of Santo Tomas, and Cardinal Santos Medical Center in the Philippines.

2022

SEPTEMBER
Faculty, learners, staff, family, and friends gathered at Schuster’s Farm in Deerfield, Wis. for "Fall on the Farm."

2022

NOVEMBER
Medical students learn how to do an eye exam as part of the "Mind and Motion" course, entailing 3 semesters of hands-on coursework.

2023

JUNE
Ophthalmology residents are honored at a graduation celebration at the Pyle Center in Madison, Wis. Photo © Andy Manis

2023

JULY
Faculty, learners, staff, family, and friends gather at Brittingham Park in Madison, Wis. for the annual first-of-the-academic-year gathering, "The Eye Opener."

2022

SEPTEMBER
Ahmara Ross, MD, PhD, from Scheie Eye Institute, presents "Glaucoma: Past, Present, and Future" at the "Frontiers in Vision Research" lecture series. Ross (center) is joined by Department Chair, Terri Young, MD, MBA and Nader Sheibani, PhD.

2023

MARCH
Department Chair Terri Young, MD, MBA (center) poses with the department’s Vice Chairs at the 2022-23 University of Wisconsin-Madison Outstanding Women of Color awards.

2023

APRIL
Creative costumes and medical simulations are on display at the "Odyssey Into Ophthalmology" event for local high school students.

2022

OCTOBER
Faculty and staff participate in the annual Right to Sight Clinic at the University Station Clinic in Madison, Wis.

2023

MARCH
Department Chair Terri Young, MD, MBA (center) poses with the department’s Vice Chairs at the 2022-23 University of Wisconsin-Madison Outstanding Women of Color awards.

2023

FEBRUARY
Ophthalmology residents travel to India as part of the annual international rotation at Dr. Shroff’s Charity Hospital in Delhi, India.

2023

JULY
Faculty, learners, staff, family, and friends gather at Brittingham Park in Madison, Wis. for the annual first-of-the-academic-year gathering, "The Eye Opener."

2023

AUGUST
Learners from 10 institutions nationwide participate in the annual two-day cataract surgery skills Phacoemulsification Course hosted jointly by the UW Department of Ophthalmology and Visual Sciences, the UW School of Veterinary Medicine, the University of Iowa, and the Medical College of Wisconsin. Photo © Andy Manis
SUPPORT YOUR HELPS US CONTINUE THIS IMPORTANT WORK

BY THE NUMBERS

MORE THAN 6,800
Surgeries at our clinic sites *between September 2022 and August 2023

MORE THAN 120
Peer-reviewed publications *between September 2022 and August 2023

$10.6 MILLION
Total money in grants awarded in 2022

112,295
Total patient visits at all clinic sites

STUDENTS, RESIDENTS, AND FELLOWS

11 Postdoctoral research fellows
21 Research graduate students
61 Medical students
12 Residents
5 Clinical fellows
3 Pathology/ Wisconsin Reading Center pre-residency fellows

#1 Best hospital in Wisconsin
WE REMEMBER

GUILLERMO DE VENECIA, MD

Longtime faculty member, colleague, and beloved friend Guillermo de Venecia, MD died May 11, 2023, at the age of 91. His career with the department spanned more than four decades, and his influence is felt by our learners and colleagues.

Dr. de Venecia partnered with Dr. Frederick Brightbill, the Wisconsin Lions, and Milwaukee Eye Bank to establish the state’s first eye bank, the Eye Bank of Wisconsin, in 1969. Ten years later, he and his wife, Marta – a nurse – established the Free Rural Eye Clinic in the Philippines to provide free eye surgery to cataract blind individuals who could not afford it. That clinic has treated over 250,000 patients and performed nearly 30,000 cataract operations.

In 2014, the Free Rural Eye Clinic established the Guillermo and Marta de Venecia Educational Fund. The money is used to provide free eye care and surgery to indigent patients of the Philippine Islands and to train eye doctors and vision science researchers from both sides of the world. The fund also supports an annual lecture in de Venecia’s honor.

“We will remember Dr. Guillermo de Venecia for his wisdom, dedication, generosity, and compassion,” said Department Chair Terri Young, MD, MBA. “He was a kind and giving human being and a true leader in the global mission to save sight. He will continue to serve as an inspiration to future generations of eye care providers for years to come.”

ALICE MCPHERSON, MD

Notable alumna, retina specialist, and vision research advocate Alice McPherson, MD died on January 16th, 2023.

McPherson was an accomplished physician, teacher, scholar, leader, and pioneer dedicated to the study and treatment of retinal diseases. As the founder of two internationally acclaimed research institutions – the Retina Research Foundation (RRF) in Houston, Texas, and the McPherson Eye Research Institute at the University of Wisconsin-Madison – she had an enormous influence on vision research worldwide.

McPherson received her baccalaureate and medical degrees and completed her ophthalmology residency at UW-Madison. She was the first woman to graduate from the department’s residency program in 1958.

“Dr. McPherson was not only a dedicated alumna of our training program, but a true pioneer in the field of ophthalmology,” said Department Chair Terri Young, MD, MBA. “As the first full-time female vitreoretinal specialist in the world, she inspired and mentored many women who have since followed in her footsteps. She was a giant and visionary in ophthalmology and retinal research.”

McPherson’s scientific contributions to ophthalmology began with pioneering scleral buckling procedures for retinal detachments, as well as retinal ablation procedures of cryotherapy and laser photocoagulation in the treatment of retinal diseases. She was an early and vigorous advocate of photocoagulation in the treatment of diabetic retinopathy. This was initially a controversial position, later proven correct by a large, randomized prospective National Eye Institute Diabetic Retinopathy Study.

In 1969, Dr. McPherson founded the RRF, one of the nation’s leading eye research organizations, dedicated to promoting understanding, prevention, and treatment of retinal diseases. Dr. McPherson’s extraordinary dedication and leadership benefited many institutions and professional organizations. In 2014, McPherson received the Gonin Medal, the oldest and most prestigious medal in ophthalmology, awarded by the University of Lausanne and the Societe Suisse d’Ophthalmologie.

THOMAS STEVENS, MD

Longtime professor and beloved department leader, Thomas Stevens, MD, died December 26, 2022, at the age of 84.

Stevens joined the department in July 1974. During his tenure, Stevens assumed many leadership roles, including retina service chief and vice chair for clinical affairs. He also served as interim department chair from 2002 – 2004.

“The Retina Service remains indebted to Dr. Stevens for his leadership and for the establishment of a team that are friends and colleagues,” said Justin Gottlieb, MD, who followed Stevens as chief of the retina service. “A lasting legacy of Dr. Stevens is the weekly retina service meeting during which we discuss challenging cases, ground-breaking research, and conduct our business meetings. This meeting is a highlight of the clinical and educational backbone of our service. The collegiality of our large service is evident as opinions are offered without ever seeming threatening. No question is too simple or opinion without merit. This only occurs through leadership that models the same characteristics. This is the legacy of Dr. Stevens.”

Stevens was known as a giving, kind person who was always looking for ways to support and grow the service and the department. He is also remembered as a conscientious physician who gave his best to his patients.

“Always with great modesty, Tom knew how to improve our practice and how to better patient care,” said Barbara Blodi, MD. “When I think of Tom, I think of him as a colleague and a friend. As a colleague, he helped me with my knowledge and experience. As a friend, I could count on him for his support, honesty, integrity, and kindness.”
For most of Anguru Premadasa's professional life, confidence hasn’t been a problem. As a professor of mathematics at UW-Platteville, he was used to lecturing in front of students, running meetings, and speaking at symposiums and conferences. Then the bulging eyes started, and life became a lot more complicated. “When I would go up to the podium to talk, I knew that everybody could see that there was something wrong with my eyes,” he said. “People were considerate, but I was self-conscious.”

But now, after undergoing a comprehensive treatment plan and having successful reconstructive surgeries – all under the care of UW Health specialists – Premadasa officially has his confidence back. “Achieving such a great outcome in care required a well-coordinated team effort over several years,” said UW Health oculoplastic surgeon Mark Lucarelli, MD, FACS. “Working together made this all possible.”

It all began around 2016, when Premadasa first noticed significant redness in his eyes. Evaluation by a doctor confirmed a case of Graves' disease, an autoimmune disorder that affects the thyroid and can cause inflammation and damage to the tissues around the eyes. Facing this diagnosis, Premadasa scoured the internet for more information. “I found that one of the nation’s top physicians for Graves’ eye disease, Dr. Lucarelli, was actually right here at UW, about a 15-minute drive from my home,” he said. “So, I just asked my primary care provider for a referral and that’s how it all started.”

At their first appointment together in November 2016, Lucarelli had Premadasa complete a questionnaire known as the TED-QOL, which measures quality of life for thyroid eye disease patients. “Even though thyroid eye disease is not fatal, it can wreak havoc on your life,” Lucarelli said. “It distorts how you look and how you feel. In the most severe cases, it can even take away your sight.”

At the initial consultation, Lucarelli laid out a multi-pronged treatment plan to help stop further damage to the eyes. The plan included a series of high dose steroid infusions and consultation with a UW Health radiation oncologist for orbital radiotherapy. The goal of these two therapies was to stop the severe inflammation around Premadasa’s eyes, which was causing the bulging and double vision. The treatment path, Lucarelli said, would take time – twelve weeks of steroid treatment and ten radiation sessions – but it offered the best path forward. Premadasa also opted for the surgical removal of his thyroid, which proved to be beneficial in his case. “Dr. Lucarelli told me at the very beginning that I could get back to normal if I followed the science,” Premadasa said. “A good surgeon and the science can take care of this problem. It’s not something that you need to live with for your entire life.”

In early 2020, after the previous treatments brought the inflammatory process under control, Premadasa was able to begin the reconstructive phase of care. First, orbital decompression was performed on his left eye. After a recovery period, Premadasa subsequently underwent eyelid retraction surgery by Dr. Lucarelli to allow his upper eyelids to cover his eyes better. This surgery not only helped improved comfort, but also helped restore his appearance. For Premadasa, the journey of many consultations and office visits, steroid infusions, radiation therapy, and several surgeries at UW Health has been a long one. But he says that each step was worth taking, because his vision is back to normal and his appearance has been restored. “I’m more self–confident when I go to make a presentation or teach a class or take a photograph with my family,” he said. “I’m very lucky to live in Madison and to have been treated by such a talented team. They are phenomenal people who are really good at their craft and their skill level is absolutely amazing.”

This surgery involved the removal of bone around the eyes to create more space and allow the eyes to rest in a more normal position. A few months later, he underwent the same procedure on the right eye. These two surgeries dramatically reduced the bulging of Premadasa’s eyes, and as an unexpected bonus, also eliminated the double vision he had also experienced in recent years.

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LOW VISION REHABILITATION
OFFERS COMPREHENSIVE SERVICES
TO PATIENTS

According to the National Eye Institute, more than 3 million Americans have a vision impairment affecting their daily life that cannot be corrected with glasses, contact lenses, procedures, or surgery. As part of our mission to improve vision-related quality of life, we provide interventions and strategies—such as adaptations and aids—that help these individuals live independently with their remaining functional vision.

It’s often surprising the impact appropriate lighting can make for people with visual impairments...

The social worker can provide vital information about available resources, including transportation services and local agencies, as well as addressing food, financial, and housing concerns. “The social worker also actively addresses mental health issues that can arise with vision loss such as anxiety and depression,” said Mondal. “Addressing mental health plays a key role in successful vision rehabilitation.”

Vision Rehabilitation Services offers an occupational therapist, who works with patients to adapt their activities of daily living, train on the use of low vision aids, and develop the skills needed to maintain independent living. “This includes basic tasks—like brushing teeth and combing hair—to more complex tasks such as cooking or utilizing a digital device,” Mondal said.

Occupational therapy also teaches strategies to compensate for loss of visual field, diminished depth perception, and decreased contrast and color sensitivity. “It’s often surprising the impact appropriate lighting can make for people with visual impairments—or how a magnifying device can allow them to read a book again.”

Vision Rehabilitation Services are in the UW Health University Station Eye Clinic in Madison, Wis.

The Wisconsin Reading Center (WRC) at the University of Wisconsin-Madison has formally evaluated retinal images for over 50 years. Its mission is to collaborate with ophthalmologists, vision scientists, and institutions worldwide to further retinal research, both in natural history and in clinical trials that test new treatments for a variety of retinal diseases. Its efforts have introduced expanded comprehension and interventions that have impacted millions by reducing vision loss and blindness.

A large team of researchers or “readers” analyze retinal images, systematically identifying disease features, and mapping out extent and severity. WRC analyzes a large spectrum of retinal diseases in global clinical trials. Long-standing disorders studied include diabetic retinopathy, age-related macular degeneration, uveitis, and retinal vein occlusion. More recently, novel clinical trials for disorders such as radiation and sickle cell disease retinopathy have expanded the reading center repertoire.

As a core data center, the WRC collaborates with various sponsors, including academic institutions, foundations, pharmaceutical companies, biotechnology firms, and government funding agencies such as the National Eye Institute and the National Institute of Diabetes and Digestive Kidney Diseases. To advance human vision research from a clinical trial to an approved treatment, the Food and Drug Administration requires that a reading center independently analyze the images from patients with anonymized data. As a result, WRC researchers analyze images without knowledge of the patient or the patient’s treatment assignment. This approach provides an unbiased, reliable source of outcomes data with which to assess the safety and efficacy of a new drug or medical device.

Amitha Domalpally, MD, PhD, WRC Research Director, notes that there are fewer than 10 retinal reading centers in the country. The WRC is one of the most sought-after by collaborators and has a well-earned reputation as a center of excellence among all programs. “With our very talented group of researchers, we are able to consistently publish new discoveries in retinal imaging, which allows our sponsors to recognize that we are leaders in retinal imaging research,” Domalpally said. “We are fortunate that the dedicated and experienced WRC research staff allows us to continually evaluate new imaging systems, develop new grading methodologies, and design artificial intelligence tools.”

Barbara Blodi, MD, WRC Medical Director, adds that “the other WRC components that have led to our success are the project management, imaging, information technology, and quality control teams. These teams function as the glue that keeps the WRC successful.”

In 2023, the WRC has been involved in 56 clinical trials and is associated with 5 federal grants. The Artificial Intelligence Research Unit (A-EYE), under the leadership of Dr. Domalpally, is developing machine-learning algorithms to screen patients more effectively for clinical trials, and to detect associations between disease features. The WRC is currently comprised of 56 faculty and staff.

Our dedicated and experienced WRC research staff allows us to continually evaluate new imaging systems, develop new grading methodologies, and design artificial intelligence tools.

Amitha Domalpally, MD, PhD
As a pediatric ophthalmologist and inherited retinal disease specialist, Melanie Schmitt, MD identified a need for comprehensive eye care among Wisconsin’s Amish and Old Order Mennonite people. Collectively called the Plain communities, this population typically lacks health insurance, pays out of pocket for health care services, and has limited resources to cover such costs. This realization inspired Schmitt to work toward improving health care for Wisconsin’s Plain families.

In 2016, Schmitt partnered with the Center for Special Children in La Farge, Wis. to offer an eye clinic to the Plain community. The Center, located in Vernon Memorial Healthcare’s rural La Farge Medical Clinic, is focused on diagnosing and managing inherited disorders in the Plain community, where western medicine is often not the first choice for health care.

“Through this partnership, we have been able to build trust and positive relationships with the members of the community,” Schmitt said.

Wisconsin has the fourth largest population of Amish and Mennonite families in the country. In Wisconsin, Vernon County has historically had the highest concentration.

Schmitt travels to the clinic with a team of orthoptists, ophthalmic technicians, electrophysiologists, and residents. They offer patients a full eye exam – complete with refraction and dilation – as well as screening for common eye diseases. These services are crucial in detecting and treating vision problems early on – and thus helping to prevent more serious conditions from developing in the future.

“Wisconsin’s Plain Communities
This is about improving the quality of life for this community.”

“The Center for Special Children was a perfect partner for this effort,” Schmitt said. “They had an established relationship with the Plain communities and were already receiving guidance from them on how to best meet their needs while being respectful of cultural beliefs and values. Through this partnership, we have been able to build trust and positive relationships with the members of the community.”

The clinic, initially offered annually, occurs three times per year. Since its inception, the clinic has served 146 patients.
As a retired nurse, Judy Troia knew that treatment for her eye disease likely meant receiving monthly injections into her eye. The Fitchburg, Wis. resident has age-related macular degeneration (AMD), the leading cause of vision loss for older adults. While it usually doesn’t result in complete blindness, AMD can lead to waxy or blurred central vision, making it harder to see faces, read, drive, or perform up-close work. There are two types of AMD: wet and dry. Most people with AMD have the dry type, which is a degenerative thinning of the macula - the central portion of the retina responsible for more focused vision and color perception. Wet AMD occurs when abnormally formed retinal blood vessels grow and break, causing leakage into the macula, resulting in swelling and subsequent scarring. It is often associated with more rapid vision loss.

Wet AMD occurs when abnormally formed retinal blood vessels grow and break, causing leakage into the macula, resulting in swelling and subsequent scarring. It is often associated with more rapid vision loss. Troia has dry AMD in one eye and wet AMD in the other. Although her visual symptoms remain relatively minor, her ophthalmologist referred her to the retina fellowship-trained specialists at the University of Wisconsin-Madison Retina Clinic for further evaluation. It was there that Troia learned of a new clinical trial offering a potentially less burdensome treatment option for her eye with wet AMD.

The Clinical Eye Research Unit (CERU) in the Department of Ophthalmology and Visual Sciences is participating in a two-year pivotal trial sponsored by Bayer Pharmaceuticals that evaluates the long-term safety and effectiveness of a new treatment for wet AMD. The protocol utilizes a high dose of the medication aflibercept. The drug, commercially known as Eylea, was approved by the U.S. Food and Drug Administration (FDA) in 2011. The study involves injecting the medication into the vitreous cavity – a gel-filled compartment in the back of the eye. Troia joined the clinical trial in the spring of 2021. “It didn’t take long for me to say ‘yes’ to the trial,” Troia said. “Initially the thought of getting a shot in my eye startled me a little,” she admitted. “But now that I’ve done it, I know there’s nothing to be afraid of. It goes quickly, and, though they tell me I’ll feel a little pinch, most of the time I don’t even feel that.”

Participants in this masked study were randomized into one of three treatment groups, receiving either aflibercept 8 milligrams every 12 weeks, aflibercept 2 milligrams every 16 weeks, or aflibercept 2 milligrams every 8 weeks, after 3 initial monthly treatments. The third treatment group – utilizing the aflibercept 2 milligram dose – was the current FDA-approved standard. Considerations for higher doses injected less frequently was the basis for the study.

Each appointment lasts 2 – 4 hours, but, for Troia, it’s time well spent. “I think it’s because of my nursing background that I wanted to be part of something that might help others,” she said. “And besides, the CERU team makes the experience as pleasant as possible… They know everything about me, not just my eyes.”

Based on the positive trial results, the aflibercept 8 milligrams (commercially known as Eylea HD) was approved by the FDA for wet AMD, as well as for diabetic retinopathy and diabetic macular edema, in August 2022. It usually takes several months before the medication reaches doctors’ offices, and it requires careful tailoring to individual patient circumstances and needs before actual use. Therefore, it is important for patients with retinal diseases such as AMD to discuss this new treatment option with their retinal specialist.

“The FDA approval of high dose aflibercept is a significant advancement in the care and treatment of retinal disease,” said Mihai Mititelu, MD, MPH, FASRS, associate professor of ophthalmology, principal investigator of the clinical trial at the UW, and medical director of the CERU. “The new treatment protocol builds upon the previously established efficacy and safety profile of aflibercept 2 milligrams by demonstrating the ability of the high dose agent to allow patients to maintain vision at extended dosing intervals. Results from this landmark clinical trial demonstrate that patients with wet age-related macular degeneration can now safely receive less frequent injections and still experience similar visual improvements.”

“Eylea HD represents a new and important tool retina specialists can utilize in their fight to save vision for patients suffering from sight-threatening retinal disease such as wet AMD,” adds Dr. Mititelu. “Like with any newly approved medications, careful attention to the applicability of clinical trial data to real-world conditions is important, as is the necessity of physicians to remain vigilant and knowledgeable of the side-effect profile as they start to incorporate this agent in routine clinical practice.”

Following the encouraging results of the wet AMD study, Bayer launched a second clinical trial involving high-dose aflibercept, this time for retinal vein occlusions, another sight-threatening condition caused by fluid leaking into the macula. The CERU is, once again, a participating site in this clinical trial.

“As is the case with targeting wet AMD, aflibercept is already approved as a treatment option for retinal vein occlusion at the 2-milligram dose,” said Dr. Mititelu. “We are looking at the efficacy and safety of the 8-milligram dose given less frequently. If the results are favorable and the agent gains FDA approval for this condition as well, retinal specialists will be able to offer this less frequent treatment option to patients with retinal vein occlusions in the future.”

The CERU team makes the experience as pleasant as possible... They know everything about me, not just my eyes.
The University of Wisconsin Department of Ophthalmology and Visual Sciences has entered into a new partnership aimed at systematically collecting, storing, processing, and distributing human eye tissue for research purposes.

The new ‘tissue biobank’ will provide investigators with high-quality human samples for research into the causes and treatments of various eye diseases. The biobank is a collaborative effort between the department and the UW’s well-established Translation Science Biocore (TSB) Biobank in the Carbone Cancer Center.

“It was a natural fit to partner with TSB Biobank for this initiative,” said Christina Thomas-Virnig, PhD, Director of Translational Research. “TSB already had the software, equipment, security, and a robust regulatory system in place. It will be a mutually beneficial partnership that will provide a vitally needed resource for vision researchers across campus.”

Under the co-direction of Colleen McDowell, PhD and Heather Potter, MD, researchers at the new biobank collected their first samples earlier this year. A staff member has been hired and trained through the TSB Biobank to focus on the collection of human eye tissues. The goal is to collect as many as 50 samples per month, when fully up and running.

“Biobanks like ours are revolutionizing ophthalmic research,” Potter said. “The availability of high-quality biological research samples is fundamental to our objective to improve understanding, care, and treatment of individuals with eye diseases and disorders.”

At present, according to the Eye Bank Association of America, there are only 66 accredited biobanks in the country. Not all of them have the capacity to provide samples to researchers the way ours does.

Most of the samples are collected from tissue that would normally be discarded after all testing for clinical care is complete. Researchers use the collected samples, which can be from either healthy or diseased tissue, to gain greater understanding of the molecular pathology of various diseases and how this may influence a patient’s overall health and wellness.

“A study may look at the differences between healthy and diseased tissue in an attempt to identify molecular and pathological changes occurring at different stages of disease,” McDowell said. “We can also investigate biomarkers of disease or to use in tissue and organ culture.”

Results of such studies can lead to the development of therapeutic treatments and more targeted, personalized patient care.

A UW Biobank Committee, comprised of clinicians, researchers, the co-directors, and the vice chair of research, will provide guidance on scientific strategy, advise on procedures, and review and approve proposals.
With new support from the National Institutes of Health, a multidisciplinary team of researchers from the Wisconsin Institute for Discovery (WID) will develop gene-editing drug therapies for two diseases known to cause blindness.

Over the next five years, the collaborative project will use the $29 million NIH grant to merge new drug delivery systems with advanced genome CRISPR technology, innovating new treatments for Best Disease (BD) and Leber Congenital Amaurosis (LCA), both of which are currently untreatable hereditary diseases.

The researchers decided to focus on the eye as their starting point because it is self-contained and isolated from other organs as well as for its accessibility, ease of monitoring and reduced likelihood of adverse immune reactions.

“Our focus is on two different diseases: LCA, a severe and rare group that affects children and their entire vision, and BD which affects older individuals’ central vision and has a slower onset,” says David Gamm, UW–Madison ophthalmology professor and director of the McPherson Eye Research Institute. “By targeting these two diseases, we can gain a broader perspective on the effectiveness of our gene editing therapeutics.”

Krishanu Saha, a professor of biomedical engineering at WID and a member of NIH’s Somatic Cell Genome Editing Consortium, views this grant as a crucial step towards advancing gene editing therapy and drug development on campus.

“The genome editing piece of it is a game changer,” Saha says. “The opportunity to execute it in a safe and meaningful way for patients, specifically Wisconsin patients currently diagnosed with one of these diseases, would be a nice fulfillment of why we do the work and why it’s publicly funded.”

Genome editing involves splicing or cutting DNA at a specific spot, or inserting a DNA template that replaces the cut site. This can correct disease-causing mutations by eliminating or replacing the mutated sequence. Despite significant advancements in CRISPR gene editing technology, it has thus far resulted in few useful drug therapies. This is mainly because although CRISPR can modify the DNA of a single cell, treating billions of cells is necessary for effective treatment.

“Typically, drug development can take 30 to 35 years,” said Bikash Pattanaik, UW–Madison associate professor of ophthalmology and visual sciences and pediatrics. “But with a multidisciplinary approach that brings together people with different expertise, we can cut this timeline in half.”

One delivery approach will be led by Shaoqin “Sarah” Gong, UW–Madison professor of ophthalmology and visual sciences and biomedical engineering. “Developing a safe and efficient delivery system for the CRISPR gene editor is essential for clinical translation,” says Gong.

Her work focuses on a new family of nanoparticles that can carry genome-editing tools into target organs or cells around the body and then harmlessly dissolve. In the past, there have been biosafety issues resulting from prolonged expression of gene editors via viral delivery. However, the Gong lab has engineered biodegradable nanoparticles that can deliver genome editors in a way that reduces the off-target editing effects.

Early studies have shown no adverse events in human cell cultures or mouse models. With U19 grant support, the team aims to optimize the nanoparticle formulations for higher editing efficiency, develop a manufacturing process and evaluate biosafety and efficiency in non-human primates. This will lead to a safer and more efficient nanoparticles-based ocular gene editing therapy.

Another approach to improving the delivery of genome editing therapeutics involves a partnership with start-up biotechnology company Spotlight Therapeutics. The California-based company will use a multi-prong approach to solving the delivery challenges using proteins and peptides. They will also focus on streamlining the industry side of developing drug therapeutics, from conceptualization to implementation.

Another challenge is one of economics. Rare disorders and diseases are not appealing to industry pharmaceuticals because the market cannot sustain the millions of dollars and time it takes to invest in the resources needed to show genome editing therapeutics are safe and effective.

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First, to ensure a therapeutic is safe and effective for patients, a model system is needed to mimic what would happen in a patient, without risking their safety.

“This can be done through animal models or lab-grown cell-based systems,” says Gamm. “Our role is to develop, grow, and maintain the cell-based system for testing.”

Additionally, most CRISPR technology uses a virus delivery system that is currently hindered by unintended off-target effects, such as reduced durability, undesirable immune reactions and supply chain difficulties. To overcome these limitations, the project aims to leverage nanotechnology to develop novel methods for efficient drug delivery of the CRISPR gene editor.

One delivery approach will be led by Shaoqin “Sarah” Gong, UW–Madison professor of ophthalmology and visual sciences and biomedical engineering. “Developing a safe and efficient delivery system for the CRISPR genome editor is essential for clinical translation,” says Gong.

Her work focuses on a new family of nanoparticles that can carry genome-editing tools into target organs or cells around the body and then harmlessly dissolve. In the past, there have been biosafety issues resulting from prolonged expression of gene editors via viral delivery. However, the Gong lab has engineered biodegradable nanoparticles that can deliver genome editors in a way that reduces the off-target editing effects.

Early studies have shown no adverse events in human cell cultures or mouse models. With U19 grant support, the team aims to optimize the nanoparticle formulations for higher editing efficiency, develop a manufacturing process and evaluate biosafety and efficiency in non-human primates. This will lead to a safer and more efficient nanoparticles-based ocular gene editing therapy.

Another approach to improving the delivery of genome editing therapeutics involves a partnership with start-up biotechnology company Spotlight Therapeutics. The California-based company will use a multi-prong approach to solving the delivery challenges using proteins and peptides. They will also focus on streamlining the industry side of developing drug therapeutics, from conceptualization to implementation.

Another challenge is one of economics. Rare disorders and diseases are not appealing to industry pharmaceuticals because the market cannot sustain the millions of dollars and time it takes to invest in the resources needed to show genome editing therapeutics are safe and effective.

“This grant offers us the resources to improve processes, develop a safe and effective patient treatment model system and enhance visual function. Although they may not eliminate the disease entirely, the goal is to create meaningful improvement,” says Gamm.
When Renata Martins Maia, MD talks about ophthalmology, her eyes sparkle, conveying the passion that drove her to travel more than 5,000 miles for the next phase of her career. Maia left the University of São Paulo, Brazil in September 2022 for a five-week residency observship with the University of Wisconsin Department of Ophthalmology and Visual Sciences.

The department’s Global Ophthalmology Initiatives Research and Clinical Observership program started in 2017, thanks to a sponsorship with the non-profit Combat Blindness International (CBI) and the University of São Paulo. It provides a global ophthalmology resident the opportunity to spend five weeks with UW faculty, observing in clinic and the operating room, participating in educational opportunities, and conducting research under the guidance of a faculty mentor.

Maia credits her parents – her mother a cardiologist and father an ophthalmologist – for inspiring her love of medicine and her interest in plastic surgery. “At first I wanted to do plastic surgery,” she said. “But eventually I realized that was not what I was looking for. Then I started in ophthalmology, and I loved it. You have so many choices within the specialty, including oculoplastics. It was a perfect fit.”

Because of her interests, Maia partnered for the five weeks with Cat Burkat, MD, FACS who specializes in oculoplastic, reconstructive, and orbital surgery. “Dr. Burkat is artistic and thinks ahead,” Maia said. “She’s always four steps ahead, which is great because you often have to be creative and think about other ways besides the traditional to help a patient.”

In addition to contributing to two research studies under Burkat, observations in clinical and surgical services including oculoplastics and neuro-ophthalmology, Maia attended the 2003 American Society of Ophthalmic Plastic and Reconstructive Surgery annual fall symposium and the national American Academy of Ophthalmology conference in Chicago. She also participated in the department’s annual Right to Sight Eye Clinic, another partnership with CBI.

Maia’s primary research was a study to determine whether there is a correlation between forehead injections and diminished hand sensitivity. “We think of Botox as a cosmetic treatment,” Maia said, “without really understanding the potential long-term medical implications.”

The second research study investigated Parry-Romberg Syndrome, a rare disorder that causes deterioration of the skin and soft tissues on half of the face. The project reviews past medical records to assess whether current treatments are effective. “This is not a common disease in Brazil,” Maia said. “But now, I’ll be able to recognize it when I see it and know how to treat it.”

Maia noted some significant differences between patient care in the United States and Brazil, particularly in terms of patient privacy. In Brazil, exam rooms are large, open areas, with multiple patients sharing the same space. “Private information is given in a very public space,” Maia said. “We need to change that.”

Further, Brazilian doctors see as many patients per day as physicians trained in the United States and Brazil, but with far less support. “In Brazil doctors complete all aspects of a patient’s appointment, from start to finish, including paperwork and transport to other departments,” she said. As a result, Brazilian doctors are less effective.

Perhaps most importantly, Maia learned skills and techniques that will help her communicate more effectively with her patients in Brazil. “You have handouts and other informational materials to assist in informing patients of their disease and the options for treatment. You use colored pencils and draw for them,” she said. “I’m going to try to do that as well back home.”

Maia’s experience in Madison wasn’t all work, as she took time to explore the community as well. She went to the capitol, the farmer’s market, the zoo, and a dog park. She traveled to Devils Lake and spent a day in Milwaukee. She even experienced a Badger football game. “I learned to jump around,” she said with a laugh. And, of course, she sampled Wisconsin food, naming cheese curds and apple pie as her favorites.

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Maia credits ophthalmology faculty and the education team with making her feel welcomed and supported. “They did their best to integrate me fully into the department,” Maia said. “Even though they were busy, they did not forget I was there. I’m grateful for that.”

She specifically noted Senior Graduate Medical Education Program Manager, Hannah Baker, in her reflection. “Hannah is the most amazing person in the world. She was so happy and friendly. I can’t be more thankful for her than I am.”

The five weeks went quickly, but it was time well spent. Maia said it has motivated her to research international fellowship programs in oculoplastics in the United States. As she returns to her family and her residency at home, she brings with her new information, a greater experience, and something intangible. ‘I found my sparkle,’ Maia said.
DEPARTMENT’S FIRST CORNEA FELLOW

For Edith Navarro, MD, providing care for those in need is about much more than just their eyes. As medical director of the Tzu Chi Eye Center in Santa Mesa, Philippines, Navarro believes good eye care treats the whole person in a compassionate, culturally sensitive way.

“Ophthalmology is not just surgery,” Navarro said. “You have to be kind to your patients. There are things we cannot heal for them. We must encourage them to find love and forgiveness in the rest of their lives so they can overcome their difficulties.”

After completing medical school, an internship, and a residency at the University of Santo Tomas in Manilla, Philippines, Navarro continued her training in ophthalmology at the University of Wisconsin-Madison, an institution that's had a long history with providing eye care services in the Philippines.

In 1979, Guillermo de Venecia, MD, the department’s first subspecialty-trained, full-time clinician, and his wife, Marta, a nurse, established the Free Rural Eye Clinic (FREC) in the Philippines to provide cataract surgery and other ophthalmologic care to patients who otherwise wouldn’t be able to afford care. Since then, dozens of UW ophthalmologists, medical students, residents, and clinical fellows have traveled to FREC (now the present-day Tzu Chi Eye Center) to provide free care for patients.

De Venecia encouraged Navarro to become the UW’s first cornea fellow, under Drs. Frederick Brightbill and Neal Barney. Navarro, who graduated in 1995, extended her stay for three months after graduation to learn about eye banking, which she wanted to implement in her home country.

“It is useless to be a cornea specialist if you don’t have an eye bank,” she said.

Navarro helped establish an eye bank in the Philippines and continues to work with the Eye Bank Foundation of the Philippines. She aims to increase voluntary donations, which can be sensitive due to cultural beliefs. “In the Philippines, we have to convince people that when you donate your corneas it’s not disfiguring,” she said. “You will still be beautiful.”

Navarro currently serves as the medical director at the Tzu Chi Eye Center in Santa Mesa, Philippines, which continues to provide free eye care and procedures to those who need it. In the Philippines, Navarro says, nearly 2% of the population – almost 2.2 million people – have cataracts, and 250,000 have cornea blindness.

The Tzu Chi Eye Center is an impressive facility with four advanced operating rooms and a team of highly skilled ophthalmologists from various sub-specialties. It’s much more than that, however, as its name - Tzu meaning “compassion” and Chi meaning “relief” - indicates. “The goal is to maintain the dignity of the recipient,” Navarro said, “to think about what little bit of good you can do – and turn that into the standard of care. It’s not about how many patients you see – but that they are thankful. And you should be thankful for having the opportunity to help them. When you help someone, you feel good. And then, when you feel good, the question becomes – who helped who?”

After surgery, the clinic helps patients find clean, safe temporary housing. “As an ophthalmologist, it is noble to want to lessen the burden of those who cannot see clearly,” she said. “But what good are eyes if there is turmoil in the heart? The joy of helping someone is the payment you receive, and you cannot buy that with money.”

TREATS MORE THAN JUST EYES

For the last 14 years, the center has provided free services, funded by donations from the community and the patients themselves. Patients often arrive at the clinic by 3 a.m. and wait in a makeshift outdoor waiting room. As they wait, they receive meals, and become volunteers, serving food to each other.

“You have to build relationships and earn their trust,” Navarro said. “It’s not only about being a doctor, when you see how simple their needs are. If you bring them something
Celebrating the diversity of our department, our university, and our community

We are proud of our culture of Acceptance, Belonging, Enablement and Empowerment. Although our work together in this space is only a few years old, we welcome and accept everyone where they are on our collective and individual journeys to a more equitable and inclusive world. Our commitment to being a ‘people-first culture’ means championing diversity, inclusion, and respect for ourselves and others as our core tenets. We are committed to building inclusive environments and supportive systems, as well as practicing our stated values to ensure well-being and success for all current and future stakeholders.

People are at the center of all we do. This means respecting and championing every person – no matter their race, gender identity, sexual orientation, age, ability, nationality, or creed. By providing programs and training for all faculty and staff, we worked diligently to ensure diversity, equity, and inclusion (DEI) was integrated into everything we did this year. We protect one another and step in when we see or hear discrimination happening in our presence.

Our patients and our community know we are a diverse workforce, and we have a culture of “Respect for People.” We are committed to taking action against racism, sexism, ageism, disabilities, genderism and hate in our clinics, research laboratories, and learning spaces. We are revising policies and traditions that exclude or are inequitable. We have worked hard to dismantle hierarchies in our work environments and celebrate teaming to ensure that all voices are heard.

We are full-throttle tackling the untold histories of our people, communities, state and nation by learning and reading together. We have a shared language which you will find on our Equity Alliance webpage. There you will find helpful articles and videos to understand in part where our journey has taken us. For more resources, visit https://diversity.wisc.edu.

INCLUSION, DIVERSITY, EQUITY AND AWARENESS COMMITTEE: ASSESSING POTENTIAL OPPORTUNITIES FOR CHANGE

The Inclusion, Diversity, Equity and Awareness committee is a newly formed initiative, comprised of DOVS and UW Health Ophthalmology staff. The group is charged with identifying recommendations for growth as a people-first culture. As a first step, the group has been exploring ways to enhance how the history of underrepresented groups, gender equality, racism and oppression is reflected in our physical spaces, through signage, naming, and art. In addition, the committee is actively engaged in finding speakers for future educational opportunities, building relationships with members of outside communities, and providing resources and consistent messaging for all employees during their onboarding and annual review processes.

DOVS EQUITY ALLIANCE

The Equity Alliance is a grassroots DEI learning group and support community. It hosts monthly meetings for faculty and staff, targeted at personal growth, fostering inclusion, and encouraging open dialogue. In the past year, the Equity Alliance hosted guest speakers, held film screenings of Aftershock and When Claude Got Shot, engaged in book discussions, and in other communal activities.

“I appreciate how we are working towards a goal of removing barriers to minoritized learners, staff, faculty, administration and the community at large,” reported one Equity Alliance program participant. “I am developing skills that are making me better at listening to the uncomfortable,” said another participant.

DIVERSITY, EQUITY, AND INCLUSION TRAINING FOR CLINICIANS

Our Clinical Working Group, comprised of service chiefs and clinical leadership, was also engaged in DEI work throughout the year. Collective initiatives included reading and discussing This Book is Anti-Racist by Tiffany Jewell and The Color of Law by Richard Rothstein.

Sanbrita Mondal, OD, Chief of Low Vision Services led faculty and staff in a low vision simulation exercise as part of the department’s in-person Equity Alliance meeting June 8, 2023.

“I am developing skills that are making me better at listening to the uncomfortable”
This will simply take it to the next level. Our residents are a critical part of our core.
GREGG HEATLEY, MD, MMM, whose notable leadership roles included glaucoma fellowship director and service chief, retired in June 2023. Heatley also served as course director of the UW’s Mind and Motion course, a 3-4-hour class that is part of a Phase 1 course in the UW School of Medicine and Public Health’s ForWard Curriculum. Phase 1 entails three semesters of hands-on coursework for first-year medical students.

The course teaches students how to conduct an ophthalmic exam. Students in the class have had instruction in basic eye anatomy but have not yet used specific equipment like ophthalmoscopes and slit lamps.

The course is their first hands-on experience measuring basic eye function and visualizing eye structures.

“It always amazes me how the students’ faces light up as they discover how cool eyeballs are,” Heatley said. “The experience keeps us teachers going for the rest of the year.”

Travis Rumery, DO has assumed the role as course director.

“It’s been 32 years of engaging, fulfilling, challenging, and gratifying work, and I feel privileged that I have been able to spend my career here,” Heatley said. “I thank you all for your support, your collegiality, your expertise, and for allowing me to be part of such an incredibly high-quality team. The fact that it has been so much fun along the way is just icing on the cake.”

As the saying goes, the eyes are the window to the soul. For Professor Julie Mares, PhD, MSPH, they can also be a window to many parts of the physical body. As a nutritional epidemiologist, Mares doesn’t only concern herself with researching ways to slow disease but also looks for ways to prevent it.

Mares retired from UW-Madison in July 2023 after a 40-year career exploring the relationships between nutrients in the diet and blood to the onset and progression of eye diseases common in old age: cataract, macular degeneration, and diabetic retinopathy.

Mares’ interest in food and healthy living started at an early age. “In the 1960s, packaged, processed food which could be enjoyed with little or no preparation (and were high in salt and sugar) took increasing space in grocery store aisles, was appealing to busy moms,” Mares said. “Things like instant oatmeal and Oreo cookies were welcome luxuries in our house. Then fast-food restaurants like McDonalds popped up, so we could enjoy quick meals without even cooking. We wanted to know how to nourish ourselves from our gardens and farms.”

In 2001, Mares spearheaded the landmark Carotenoids in Age-Related Eye Disease Study. Known as CAREDS, the project was the first long-term examination of carotenoid plant pigments and vision. Mares, and co-principal investigator, Barbara Blied, began following more than 2,000 women, studying the impact of genetics, vitamin D status, physical activity, and nutrient-rich diet patterns in relation to eye health over multiple years.

This research revealed that lutein – and other carotenoids like zeaxanthin – positively impacted blood vessel health. This research revealed that it wasn’t simply a matter of how much lutein a person eats that determines how much of it gets to their eyes. Rather, there are other factors – like genetics and exercise – that play a role in creating the circumstances required to accumulate macular pigment and prevent age-related macular degeneration damage as we age.

“My advice is to focus on a healthy diet and lifestyle more than any one particular nutrient,” Mares said. “Many of us tend to rely on vitamin pills. For example, we might not eat an orange because we think we are getting the vitamin C we need by taking vitamin C tablets. But it’s not that simple. We benefit from eating foods which provide many other bioactive plant chemicals, in addition to vitamins and minerals. Commercial vitamin products do not often contain beneficial plant chemicals.”

Andrew T. Thliveris, MD, PhD, a 28-year veteran of the department, retired in September 2023. After completing his ophthalmology residency and a postdoctoral research fellowship at the University of Wisconsin-Madison, Thliveris joined the faculty in 2000. He became the Veterans Affairs Hospital service chief in 2007 and vice chair of resident education and residency director in 2014 – all roles he held for the remainder of his career.

Thliveris will be remembered also for his work as director of the department’s cataract extraction phacoemulsification course. In this three-year progressive course, medical and veterinary ophthalmology residents, UW and visiting medical students, and pre-residency fellows from around the country learn the latest cataract surgical techniques. To recognize Dr. Thliveris’ lasting legacy, the department dedicated its new Surgical Skills Training Facility in his honor. The new space, which expands the department’s training capacity, will be instrumental in training the next generation of eyecare specialists.

“I can’t tell you how much each and every one of you has meant to me,” Thliveris said, in announcing his retirement. “Our residents are beyond amazing, and the dedication from the faculty to our program has made short work for our education team. We have a very proud tradition here and are poised to continue for generations to come. While the decision to retire was a very emotional one, it comforts me greatly to know that I am leaving things in such capable hands. Full steam ahead.”

Three faculty members whose careers comprised nearly a century of service to the University of Wisconsin collectively, retired from the department in 2023.

We are grateful for their exceptional service and wish them the best.
Faculty, staff, alumni, and benefactors celebrated the official unveiling of a new state-of-the-art Surgical Skills Training Facility (SSTF) in April 2023.

The new facility addresses an urgent need for additional flexible space with the capacity to accommodate a variety of learning purposes, programs, and initiatives.

It significantly increases training capacity – from a converted closet at the William S. Middleton Veterans Administration Hospital that could only accommodate two people – to an expanded space that can now accommodate more learners at one time, along with state-of-the-art equipment that mimics what is in the operating room.

“This expanded space allows for a more realistic hands-on experience, preparing our learners for the situations they will encounter in surgery,” said Terri Young, MD, MBA, department chair. “We believe that the foundation of surgical training occurs in the surgical training wet lab, where learners gain skills, familiarity, and confidence in the steps of ophthalmic surgery prior to caring for patients in the operating room. The new facility also provides ease of access and new opportunities for learning before, after, or between clinic time as well as on weekends.”

The lab consists of 10 variable-height wet lab workstations. Each one is outfitted with cutting-edge equipment, including a microscope with flexible arm tabletop stand; a camera; video capability; and a halogen light source, controls, and foot switch. In addition, there is a high-resolution screen/monitor connected to the wet lab space allowing for group viewing and discussion.

"ONE OF THE BIGGEST BENEFITS TO THE NEW SPACE IS THAT IT ENABLES US TO EXPAND OUR TEACHING CAPABILITIES TO A BROADER AUDIENCE OF LEARNERS AND OPHTHALMIC PROFESSIONALS," YOUNG SAID. "THIS INCLUDES ALUMNI, TECHNICAL STAFF, AND COMMUNITY PROVIDERS – ALL OF WHOM WILL BE ABLE TO PRACTICE AND ADVANCE THEIR SKILLS IN A POSITIVE LEARNING ENVIRONMENT."

The space officially recognizes Andrew Thliveris, vice chair of resident education and Veterans Affairs Hospital service chief, for his outstanding contributions to the department.

“IT’S MIND-BLOWING!” Dr. Thliveris said. “The opening of this space marks a new chapter in residency education and is a crucial component in training the next generation of eye care providers. It’s a huge accomplishment for our department – to our alumni and residents too. I believe this is the way we give back. We can truly be generational with our training, and we couldn’t have achieved it without the overwhelming support of our community.”

More than $100,000 in funds were raised by the department community in support of the facility.
HONORS

DEPARTMENT CHAIR TERRI YOUNG, MD, MBA HONORED AT UNIVERSITY OF WISCONSIN-MADISON OUTSTANDING WOMEN OF COLOR AWARDS CEREMONY

“A force of nature within the world of ophthalmology.”
That is how Dr. Young has been described.

During a ceremony on March 2, 2023, Young was recognized with an Outstanding Woman of Color Award from the University of Wisconsin-Madison. These annual awards – now in their 15th year – acknowledge and honor women of color among university faculty, staff, students, and in the greater Madison community who have made outstanding contributions to social justice, community service, scholarly research, and community building.

“Dr. Young is a force of nature within the world of ophthalmology,” wrote Kimberly Stepien, MD and Amy Walker, OD in their nomination letter. “She is the only African American female chair of ophthalmology in the country (in a non-Historically Black College or University), truly forging the way in the field of ophthalmology that is predominantly male and white.”

This award follows on the heels of a similarly prestigious recognition from the Women in Ophthalmology. In October 2022, Young received that organization’s highest honor - the Suzanne Véronneau-Troutman Award - which recognizes a female ophthalmologist who has been a champion for women in the ophthalmology field internationally within the previous year.

NEW LEADERSHIP ANNOUNCED

The department named three faculty to new leadership roles during 2023, in response to the retirement of Andrew Thliveris, MD, PhD, a 28-year department veteran. Thliveris, who served as vice chair of resident education and the Veterans Affairs Hospital service chief retired September 30, 2023.

THOSE FILING HIS SHOES INCLUDE:

- DANIEL KNOCH, MD, who assumed the role of veterans affairs service chief on July 1, 2023.
- ANNA MOMONT, MD, who was named residency director on July 1, 2023.
- JONATHAN CHANG, MD, who became associate residency program director – the role Momont held for the past seven years – on September 1, 2023.

ROOMASA CHANNA, MD NAMED A ‘40 UNDER 40’

At a special reception at the American Academy of Ophthalmology annual meeting in Chicago in September 2022, Dr. Channa was recognized with a 40 Under 40 Award from Ophthalmology Management Magazine. The inaugural award honors the next generation of ophthalmologists, under 40 years of age, who have made a significant impact in the field. “I am honored to be receiving this award,” Dr. Channa said. “I would like to extend heartfelt gratitude to everyone who has helped me along the way. Without the encouragement and support of my family, colleagues, and mentors – past and current - I would not be where I am today.”

Daniel Knoch, MD
Anna Momont, MD
Jonathan Chang, MD

Roomasa Channa, MD
FACULTY HONORED IN INVESTITURE CELEBRATIONS

Four department faculty have been honored by the School of Medicine and Public Health at investiture ceremonies, honoring their new appointments of endowed faculty positions.

The events signify that a faculty member now holds an endowed professorship, chair, or fellowship. These endowment designations are supported through philanthropy and signify the highest honor the school can bestow on its faculty members.

THE FOLLOWING FACULTY WERE HONORED:

- **MELANIE SCHMITT, MD**: John W. Doolittle and Helen Doolittle Professorship (October 12, 2022).
- **KIMBERLY STEPIEN, MD**: John W. Doolittle and Helen Doolittle Professorship (October 12, 2022).
- **MICHAEL ALTAWEEL, MD**: Monroe E. Trout Chair in Vision Research (October 12, 2022).
- **SHAOQIN “SARAH” GONG, PHD**: Retina Research Foundation Edwin and Dorothy Gamewell Professorship (June 29, 2023).

LAURA KOPPLIN, MD, PHD IS A UW HEALTH RISING STAR

Kopplin was honored with the UW Health Rising Star Clinical Practice Physician Award at a ceremony in May 2023.

The prestigious award recognizes individuals who demonstrate exceptional skills in clinical practice, education and leadership, and a commitment to the mission, vision, and values of UW Health.

Kopplin, an assistant professor, is, along with Kimberly Stepien, MD, co-director of the department’s medical retina and uveitis fellowship.

DANIEL KNOCH, MD LEADS AMERICAN ACADEMY OF OPHTHALMOLOGY EFFORTS TO ENHANCE LEARNING MATERIALS FOR MEDICAL STUDENTS

Knoch serves as chair of the academy’s medical student educators website committee. Under Knoch’s leadership, the organization has developed an extensive website to help students and primary care doctors learn more about ocular disease. The site features interactive cases, webinars, interactive figures, surgical subspecialty videos, and residency information. It recently expanded to include a “Case of the Week” feature.

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- **SHAOQIN “SARAH” GONG, PHD**: Retina Research Foundation Edwin and Dorothy Gamewell Professorship (June 29, 2023).
Hello DOVS Alumni,

I am excited and enthusiastic to meet and work with you in my new Director of Development role.

My roots run deep with the University of Wisconsin-Madison. I am an alumnus, former student athlete on the Badger football and track and field teams, and I earned two national community service awards during my time at UW-Madison.

After graduation in 1999, I was fortunate enough to be drafted into the NFL and played 5 seasons for 3 teams. Since leaving the NFL, I have honed my professional skills in business development and management in various industries, including investment management, financial technology (FinTech), sports technology and marketing, and television sports broadcasting; and previously served on the national Wisconsin Alumni Association’s board of directors. I look forward to developing strategies for major gift development related to our alumni programs and building meaningful relationships with all of you.

In my short time with the Department of Ophthalmology and Visual Sciences, I have witnessed great passion for the important work of treating and preventing blindness, by all involved in the department. I am reminded every day when visiting with faculty, learners, and staff how serious and important they view their work. That understanding is then taken to an even deeper level when I have the opportunity to hear from patients about their care journey, and the impact every part of it has had on their lives.

I sincerely want all of you alumni to know that, from wherever you reside and do your important work, you are forever a part of the Department of Ophthalmology and Visual Sciences at UW-Madison. And it is our aim to help you feel that sense of belonging from us in the department. The learners that came before you blazed the trail for you, and you have blazed the trail for those here now. I look forward to visiting with all of you, and hearing how the Department of Ophthalmology and Visual Sciences shaped your journey to where you are today, and how we together can help take it to higher levels of greatness.

Thank you,

D. Cecil Martin
Many thanks to the generous donors who help advance vision research and support training the next generation of eye surgeons and researchers. This list represents gifts to the University of Wisconsin Department of Ophthalmology and Visual Sciences between July 1, 2022 and June 30, 2023.

### $100,000 +

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We are pleased to welcome

7 NEW CLINICAL & RESEARCH FACULTY
to our team!

CLINICAL FACULTY

Abigail Jebaraj, MD
Education
RESIDENCY: Moran Eye Center, University of Utah Health
Medical Interests
comprehensive ophthalmology, population health

Douglas Snyder, MD
Education
RESIDENCY: Washington University School of Medicine
FELLOWSHIP: University of Utah
Medical Interests
comprehensive ophthalmology, neuro-ophthalmology

Eric Weinlander, MD, FACS
Education
RESIDENCY: University of Michigan Kellogg Eye Center
Medical Interests
anterior segment surgery, cataracts, corneal transplantation, refractive surgery

RESEARCH FACULTY

Ismail Zaitoun, PhD
Education
RESIDENCY AND FELLOWSHIP: University of Wisconsin-Madison
Research Interests
hypoxic-ischemic insult on retinal vascular integrity and function, hypoxia-inducible factors (HIFs) to retinal vascular damage, ischemic stroke insult on the nervous system at the cellular level, both in vivo and in vitro, pro- and anti-apoptotic proteins in eye vasculature under developmental and pathologic conditions

OPTOMETRY FACULTY

Kallie Harrier, OD, MPH, FAAO
Education
DOCTOR OF OPTOMETRY: Massachusetts College of Pharmacy and Health Sciences University

Andrew Kornaus, OD, FAAO, FSL5
Education
DOCTOR OF OPTOMETRY: Indiana University School of Optometry
RESIDENCY: Anterior segment disease and contact lenses, Davis Duehr Dean

Michael Rickels, OD
Education
DOCTOR OF OPTOMETRY: Illinois College of Optometry

VISITING PROFESSORS

Sobha Sivaprasad, MBBS, MS, DM, FRCS, FRCOphth
Moorfields Eye Hospital
MATTHEW D. DAVIS CLINICAL RESEARCH LECTURE: "Geographic Atrophy – Challenges with Interpretation of clinical Trials"
October 7, 2022

Tamara Fountain, MD
RUSH University Medical Center
GRAND ROUNDS: "Pilots and Physicians, Passengers and Patients: Maintaining Situational Awareness When Stakes Are High"
October 12, 2022

Almara Ross, MD, PhD
Scheie Eye Institute, University of Pennsylvania
FRONTIERS IN VISION RESEARCH: "Glaucoma: Past, Present, and Future"
December 2, 2022

Preethi Ganapathy, MD, PhD
SUNY Upstate Medical University
GRAND ROUNDS: "Under Pressure: The Optic Nerve Head in Glaucoma"
February 10, 2023

Bernardita (Edith) Navarro, MD, MBA
Tzu Chi Eye Center, Santa Mesa, Philippines
GUILLERMO AND MARTA DE VENECIA LECTURE: "Footprints of Compassion"
March 17, 2023

Claire Mitchell, PhD
Perelman School of Medicine, University of Pennsylvania
FRONTIERS IN VISION RESEARCH: "Microglial Responses Linking Mechanical Strain to Neuroinflammation"
March 31, 2023

Shiming Chen, PhD
Washington University
GEORGE KAMBARA, MD VISION SCIENCE SYMPOSIUM: "Understanding and treating CRX-linked Retinopathies"
April 14, 2023

Ashok Kumar, PhD
Wayne State University School of Medicine
GEORGE KAMBARA, MD VISION SCIENCE SYMPOSIUM: "Multi-mics studies to understand the pathobiology of intraocular infections"
April 14, 2023

Daniel M. Lipinski, MSC, PhD
Medical College of Wisconsin Eye Institute
GEORGE KAMBARA, MD VISION SCIENCE SYMPOSIUM: "Gene Therapy Mediated Intraocular Pressure Reduction in Open-angle Glaucoma"
April 14, 2023

Pavlina Kemp, MD
University of Iowa Hospitals & Clinics
GRAND ROUNDS: "Fostering a Growth Mindset through Feedback: Optimizing the Adult Learning Experience"
May 5, 2023

Samuel Herberg, PhD
SUNY Upstate Medical University
FRONTIERS IN VISION RESEARCH: "Time to Soften Up: Extracellular Matrix Hydrogels for Outflow Cell Studies in 3D"
June 2, 2023

O’Rese Knight, MD
University of California - San Francisco
GRAND ROUNDS: "Diversifying the Ophthalmology Workforce"
June 9, 2023

Michele Bloomer, MD
University of California - San Francisco
GRAND ROUNDS: "Infectious Pathology"
July 21, 2023
CLINICAL AND RESEARCH FACULTY

Michael M. Altaweel, MD Professor, VitreoRetinal Surgery Fellowship Director, Co-Director of the Wisconsin Reading Center, Monroe E. Trout Chair in Eye Research, McPherson Eye Research Institute

Barbara A. Blodi, MD Matthew D. Davis Professor, Retina Research Foundation Daniel M. Albert Chair, Wisconsin Reading Center Medical Director

Yasmin S. Bradford, MD John W. Doolittle Pediatric Ophthalmology Professor, Co-Chair Global Ophthalmology Initiatives

Curtis R. Brandt, PhD UW Medical Foundation Professor, Vice Chair of Research

Cat N. Burkat, MD, FACS Professor, Co-Chair Global Ophthalmology Initiatives, ASOPRS Fellowship Faculty

Jonathan S. Chang, MD Associate Professor, VitreoRetinal Surgery Fellowship Assistant Director, Chair, Funds Distribution Committee

Roomasa Channa, MD Assistant Professor

Yanjun (Judy) Chen, MD, PhD Associate Professor, NeuroOphthalmology Service Chief

Anitha Domapally, MD, PhD Assistant Professor, Wisconsin Reading Center Research Director

David M. Gamm, MD, PhD Professor, Sandra Lemke Trout Chair in Eye Research, Retina Research Foundation Emmett A. Humble Distiguished Chair, Director of the McPherson Eye Research Institute

Shaojin (Sarah) Gong, PhD Villas Distinguished Professor and Advancing Vision Science Chair Professor

Justin L. Gottlieb, MD Professor, Retina Service Chief

Gregg Heatley, MD, MMM Professor, Director of Quality Improvement

Mralinali Hoon, PhD Assistant Professor, Retina Research Foundation Rebecca Meyer Brown Professor, McPherson Eye Research Institute

Paul L. Kaufman, MD Ernst H. Barany Professor of Ocular Pharmacology, Department Chair Emeritus

Daniel W. Knoch, MD Professor, Vice Chair of Education and Faculty Development, Director of Medical Student Education

Laura J. Kopplin, MD, PhD Assistant Professor, Uveitis Service Chief

Jennifer C. Larson, MD Assistant Professor

Yao Liu, MD, MS Assistant Professor, Director of Teleophthalmology, Glaucoma Service Chief, Glaucoma Fellowship Director

Mark J. Lucarelli, MD, FACS Richard K. Dortzbach Professor of Ophthalmic Plastic Surgery, Oculoplastic and Reconstructive Surgery Service Chief, UW Health University Station Eye Clinic Medical Director

Julie Mares, PhD, MSPH Professor

Coleen M. McDowell, PhD William and Phyllis Huffman Research Professor

Gillian McLellan, BVMS, DACVO, DECVO, PhD Professor

Alexander R. Miranda, MD Assistant Professor, DOVS Vision Research Professor

Mihai Mîîtîtelu, MD, MPH Associate Professor, Clinical Eye Research Unit Medical Director

Anna C. Momont, MD Assistant Professor, Associate Residency Program Director, Director of DOVS Saturday Free Clinics

Freya Mowat, PhD, BVSc Assistant Professor

Sarah M. Nehls, MD Professor, Cornea and Anterior Segment Service Chief

Donna M. Neumann, PhD Associate Professor

Robert W. Nickells, PhD Frederick A. Davis Chair of Ophthalmology and Visual Sciences Professor

T. Michael Nork, MD, MS, FARVO Professor

Heather Potter, MD Professor, Ophthalmic Pathology Service Chief, DOVS Wellness Director

Travis C. Rumery, DO Assistant Professor

Patricia C. Sabb, MD Assistant Professor

Stephen K. Sauer, MD Associate Professor

Kathleen R. Schildroth, MD Assistant Professor

Melanie Schmitt, MD Assistant Professor, John W. and Helen Doolittle Professor, Patient Centered Care Committee

Nader Sheibani, PhD Professor, Retina Research Foundation Alice R. McPherson Research Chair

Kimberly E. Stepien, MD, John W. and Helen Doolittle Professor of Ophthalmology, Co-Chair of Clinical Affairs, Director, Adult Inherited Retinal Disease Clinic, Co-Director, Ocular Genetics

John E. Temprano, MD Associate Professor, Comprehensive Ophthalmology Service Chief

Andrew T. Thiliveris, MD, PhD Professor, Vice Chair of Resident Education, Veterans Affairs Hospital Service Chief

Suzanne W. van Ladingham, MD Assistant Professor

Evan J. Warner, MD Assistant Professor, Lions Eye Bank of Wisconsin Medical Director

Terri L. Young, MD, MBA, FARVO Chair, Peter A. Duehr Professor of Ophthalmology, Pediatrics and Medical Genetics

Ismail Zaitoun, PhD Assistant Professor

James Bell, MD
Joseph T. Bergmann, MD
Thomas Castille, DO, MBA
Dongmei Chen, MD
Mark Duffy, MD, PhD
Daniel Fary, MD
Sarah Groessl, MD
Kara Harbick, MD
Richard Heckert, MD

Amol D. Kulkarni, MD
Bradley M. Lemke, MD
Michele Martin, OD
Kevin Miller, MD
Sanbrita Mondal, OD
Asha Okorie, MD
Brett Parisi, MD
Nayan Patel, OD
William J. Reynolds, MD

John G. Rose, MD
Jeffrey L. Shere, MD
Amy Walker, OD, MBA, FAAO
Wei-Chaun Wang, MD
Kevin Wienkers, MD
Mitchell Wolf, MD
Lee Woodward, MD

ANNE GRIEP, PHD PROFESSOR, CELL AND REGENERATIVE BIOLOGY

RAUNAK SINHA, PHD ASSOCIATE PROFESSOR, NEUROSCIENCE, DAVID AND NANCY WALSH FAMILY PROFESSORSHIP IN VISION RESEARCH

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Yuhang Zhao, PhD Assistant Professor of Computer Science

Donna Peters, PhD Professor, Pathology and Laboratory Medicine

AFFILIATE FACULTY

Bikash Pattanaik, PhD, MPHIL Assistant Professor, Pediatrics, Retina Research Foundation M.D. Matthews Research Professor

Natascha Merton, PhD, MS Assistant Professor, Departments of Population Health Sciences and Medicine

OPHTALMOLOGY FACULTY

Karina A. Conlin, OD, FAAO, ABO Diplomate Clinical Adjunct Assistant Professor Optometry Service Chief Clinical Optometrist

Kevin D. Kurt, OD Clinical Adjunct Assistant Professor Clinical Optometrist

Michele M. Martin, OD, ABCMO Clinical Adjunct Assistant Professor Clinical Optometrist

Sanbrita Mondal, OD Clinical Adjunct Assistant Professor/ Senior Research Scientist III Clinical Optometrist

Tracy A. Klein, OD Clinical Optometrist

Nayan R. Patel, OD, ABO Diplomate Clinical Adjunct Assistant Professor Clinical Optometrist

Kelsey L. Rickels, OD Clinical Optometrist

Amy L. Walker, OD, MBA, FAAO Clinical Adjunct Assistant Professor Clinical Optometrist Co-Chair of Clinical Affairs

Kevin W. Fansler, OD, FAAO, ABO Diplomate Clinical Adjunct Assistant Professor Clinical Optometrist

Natascha Merton, PhD, MS Assistant Professor, Departments of Population Health Sciences and Medicine

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Kelsey L. Rickels, OD Clinical Optometrist

Amy L. Walker, OD, MBA, FAAO Clinical Adjunct Assistant Professor Clinical Optometrist Co-Chair of Clinical Affairs
RESIDENTS, FELLOWS, POSTDOCTORAL

AND GRADUATE STUDENTS

RESIDENTS

CLASS OF 2023
Katherine Dalzotto, MD
MEDICAL SCHOOL: Case Western Reserve University School of Medicine, Cleveland, OH

Chintan Pathak, MD, Chief Resident
MEDICAL SCHOOL: Northwestern University Feinberg School of Medicine, Chicago, IL

William Van De Car, MD
MEDICAL SCHOOL: University of Texas Southwestern Medical School, Dallas, TX

CLASS OF 2024
Jacob Abou-Hanna, MD
MEDICAL SCHOOL: University of Michigan Medical School, Ann Arbor, MI

Kevin Elwood, MD
MEDICAL SCHOOL: University of Texas at Houston Dell Medical School, Austin, TX

Nenita Maganti, MD
MEDICAL SCHOOL: University of Minnesota Medical School, Minneapolis, MN

CLASS OF 2025
Breanna Aldred, MD
MEDICAL SCHOOL: University of Wisconsin School of Medicine and Public Health, Madison, WI

Georges Guillaume, MD
MEDICAL SCHOOL: University of Maryland, Baltimore, MD

Samuel Whittier, MD
MEDICAL SCHOOL: University of Utah School of Medicine, Salt Lake City, UT

CLASS OF 2026
Jackson Korger, MD
MEDICAL SCHOOL: University of Wisconsin School of Medicine and Public Health, Madison, WI

Rushi Mankad, MD
MEDICAL SCHOOL: University of New Mexico, Albuquerque, NM

Kevin Schneider, MD
MEDICAL SCHOOL: University of Michigan Medical School, Ann Arbor, MI

CLASS OF 2027
Aziza Dhalai, MD
MEDICAL SCHOOL: University of California, San Francisco, San Francisco, CA

Claire Hermen, MD
MEDICAL SCHOOL: University of Wisconsin School of Medicine and Public Health in Madison, WI

Lucas Maakestad, MD
MEDICAL SCHOOL: University of Iowa Roy J. and Lucille A. Carver College of Medicine, Iowa City, IA

Thomas Emmet, MD
MEDICAL SCHOOL: University of Texas Southwestern, Dallas, TX

CLINICAL FELLOWS

CLASS OF 2023
Katy Coggins, MD
Glaucoma
RESIDENCY: The University of Texas Southwestern Medical School, Texas
INTERNSHIP: Saint Joseph Hospital, Denver, CO
MEDICAL SCHOOL: The University of Texas Southwestern Medical School, Texas

Elaine Downie, MD
Oculofacial Plastic Surgery
INTERNSHIP: Hennepin County Medical Center, Minneapolis, MN
MEDICAL SCHOOL: University of Minnesota Medical School, Minneapolis, MN

Benjamin Fowler, MD, PhD
Vitreoretinal Surgery, Second Year
RESIDENCY: Bascom Palmer Eye Institute, Miami, FL
INTERNSHIP: University of Kentucky College of Medicine, Lexington, KY
GRADUATE SCHOOL: University of Kentucky College of Medicine, Lexington, KY
MEDICAL SCHOOL: University of Kentucky College of Medicine, Lexington, KY

Julia Shatten, MD
Cornea, External Disease, Refractive Surgery
RESIDENCY: University of Pittsburgh Medical Center, PA
INTERNSHIP: University of Vermont Medical Center, VT
MEDICAL SCHOOL: University of Vermont College of Medicine, VT

CLASS OF 2024
Mohammad Sabbagh, MD
Glaucoma
RESIDENCY: Beaumont Taylor, Tyler, MI
MEDICAL SCHOOL: Michigan State University College of Human Medicine, East Lansing, MI

Paige Richards, MD
Vitreoretinal Surgery
RESIDENCY: University of Wisconsin-Madison, WI
INTERNSHIP: Spectrum Health, Grand Rapids, MI
MEDICAL SCHOOL: Michigan State University of Human Medicine, East Lansing, MI

Anna Walsh, MD
Cornea, External Disease, Refractive Surgery
RESIDENCY: University of Iowa College of Medicine, Iowa City, IA
MEDICAL SCHOOL: University of Tennessee HSC College of Medicine, Memphis, TN

CLASS OF 2025
Emerson Kendall, DO
Glaucoma
RESIDENCY: University of Colorado Denver School of Osteopathic Medicine, Aurora, CO
MEDICAL SCHOOL: University of Nevada, Las Vegas, Las Vegas, NV

Ryan Larochelle, MD
Oculofacial Plastic Surgery
RESIDENCY: University of Colorado School of Medicine, Aurora, CO
MEDICAL SCHOOL: NYU Grossman School of Medicine, New York, NY

CURRENT CLINICAL FELLOWS

Mohammad Sabbagh, MD
Glaucoma
RESIDENCY: Beaumont Taylor, Tyler, MI
MEDICAL SCHOOL: Michigan State University College of Human Medicine, East Lansing, MI

Paige Richards, MD
Vitreoretinal Surgery
RESIDENCY: University of Wisconsin-Madison, WI
INTERNSHIP: Spectrum Health, Grand Rapids, MI
MEDICAL SCHOOL: Michigan State University College of Human Medicine, East Lansing, MI

Anna Walsh, MD
Cornea, External Disease, Refractive Surgery
RESIDENCY: University of Iowa College of Medicine, Iowa City, IA
MEDICAL SCHOOL: University of Tennessee HSC College of Medicine, Memphis, TN

PRE-RESIDENCY FELLOWSHIP PROGRAM

Brandon L Vander Zee, MD
Ophthalmic Pathology/Imaging Fellow
MEDICAL SCHOOL: University of South Dakota Sanford School of Medicine, Vermillion, SD

Qiancheng (Jack) Wang, MD
Ophthalmic Pathology/Imaging Fellow
MEDICAL SCHOOL: Baylor College of Medicine, Houston, TX

Colin Froines, MD
Imaging Fellow
MEDICAL SCHOOL: University of Washington, Seattle, WA

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POSTDOCTORAL STUDENTS

David Barnett
Advisor: Freya Mowat, PhD, BVSc
Qingquing Deng
Advisor: Sarah Gong, PhD
Ruoxuan Gao
Advisor: Sarah Gong, PhD
Dongdong Li
Advisor: Sarah Gong, PhD
Praveen Susai Manickam
Advisor: David Gamm, MD, PhD
Philip Mzyk
Advisor: Colleen McDowell, PhD
Kazuya Oikawa
Advisor: Gillian McLellan, BVMS, DACVO, DECVO, PhD
Yong-Seek Song
Advisor: Nader Sheibani, PhD
Whitney Stevens-Sostre
Advisor: Mrinalini Hoon, PhD
Xiuxiu Wang
Advisor: Sarah Gong, PhD
Yuyan Wang
Advisor: Sarah Gong, PhD
Praveen Susai Manickam
Advisor: David Gamm, MD, PhD
Philip Mzyk
Advisor: Colleen McDowell, PhD
Kazuya Oikawa
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Whitney Stevens-Sostre
Advisor: Mrinalini Hoon, PhD
Xiuxiu Wang
Advisor: Sarah Gong, PhD
Yuyan Wang
Advisor: Sarah Gong, PhD

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Advisor: Sarah Gong, PhD
Raymond Doudlah
Program: Cellular and Molecular Biology
Advisor: Ari Rosenberg, PhD
Kim Edwards
Program: Cellular and Molecular Pathology
Advisor: David Gamm, MD, PhD
Emma Geiduschek
Program: Neuroscience Training Program
Advisor: Colleen McDowell, PhD
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Advisor: Sarah Gong, PhD
Jamie Jones
Program: Biomedical Engineering
Advisor: Sarah Gong, PhD
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Program: Microbiology Doctoral Training Program
Advisor: Donna Neumann, PhD
Virginia Mathu
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Advisor: David Gamm, MD, PhD
Nicole Muench
Program: Cellular and Molecular Pathology
Advisor: Robert Nickells, PhD
Jenna Nagy
Program: Cellular and Molecular Pathology
Advisor: Raunak Sinha, PhD
Jarron Roy
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Program: Biomedical Engineering
Advisor: Sarah Gong, PhD
Jingcheng Zhu
Program: Biomedical Engineering
Advisor: Sarah Gong, PhD
Min Zhu
Program: Chemistry
Advisor: Sarah Gong, PhD

When I was looking for a fellowship, it was really important to me to find a place that would have excellent mentorship. I wanted to make sure that I would find people that would support me, not only in developing the skills that I wanted for my career, but also throughout my career.

Julia Shatten, MD
2023 Cornea Fellow
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We are proud to be a leader among our peer institutions in publication output. Our success is the result of collaborations with one another, across campus and all over the world. The following list represents peer-reviewed publications from September 1, 2022 through August 31, 2023.


