IN THIS ISSUE

3 Leadership
4 Message from the Chair: R.V. Paul Chan, MD, MSc, MBA, FACS

FEATURE STORIES
6 Taking a Personal Approach to Residency Training
10 An Entrepreneurial Approach to Vision Research
14 The Specialty Care Building: The IEEI’s New Clinical Home
18 Diversity, Equity, Inclusion, and Accessibility: Illinois Ophthalmology Pipeline (IOP)
19 New Initiatives: Ocular Oncology Service

EDUCATION
20 Ophthalmologists in Training

CLINICAL CARE
25 Clinical Services/Faculty

RESEARCH
46 Research Faculty
51 Research & Innovation Centers
58 Clinical Investigations & Trials
60 Sponsored Research
62 Faculty Publications
63 Awards and The Cless Family Lecture Series
64 Donor Spotlight
65 Donor Honor Roll
66 Recognizing Dr. Joel Sugar and Dr. Jacob Wilensky
68 Alumni Spotlight
70 In Memoriam: Dr. Kirk Packo
R.V. Paul Chan, MD, MSc, MBA, FACS | Department Chair
John H. Panton, MD Professor of Ophthalmology

Ahmad A. Aref, MD, MBA | Vice-Chair for Clinical Affairs
Professor of Ophthalmology

Deepak Edward, MD, FACS, FARVO | Vice-Chair for Education
Professor of Ophthalmology

Jennifer I. Lim, MD, FARVO | Vice-Chair for Diversity, Equity, and Inclusion
Marion H. Schenk Esq., Chair in Ophthalmology for Research in the Aging Eye

Timothy McMahon, OD, FAAO | Vice-Chair for Optometry
Professor of Ophthalmology

William F. Mieler, MD, FARVO | Vice-Chair for Faculty Affairs
Cless Family Professor in Ophthalmology

Pete Setabutr, MD | Vice-Chair for Global Ophthalmology
Professor of Ophthalmology

Deepak Shukla, PhD | Vice-Chair for Research
Marion H. Schenk Esq, Professor in Ophthalmology for Research of the Aging Eye

Thasarat Sutabutr Vajaranant, MD, MHA | Vice-Chair for Strategic Initiatives
Professor of Ophthalmology

Illinois Eye and Ear Infirmary Leadership 2023 (left to right): Drs. Setabutr, Vajaranant, Mieler, Chan, McMahon, Lim, and Edward. (Not pictured: Drs. Aref and Shukla)
MESSAGE FROM THE CHAIR

R.V. Paul Chan, MD, MSc, MBA, FACS

The past year marked a significant milestone for the Department of Ophthalmology and Visual Sciences, as we moved into our new clinical building, entering a new chapter in innovation, clinical care, research, and education for our department. The move to the Specialty Care Building and Illinois Eye and Ear at UI Health has transformed the way we work together and provide patient care, propagating a stronger culture of collaboration among our faculty, who continue to provide world class patient care, partner on multidisciplinary research and discovery, and mentor the next generation of clinicians and scientists. These collaborations will continue to catalyze conversations related to many of our key areas of research, including artificial intelligence, regenerative medicine, and health equity across our department and throughout the rest of the UIC campus. Moreover, it will allow our teams to continue to expand their efforts to bring discovery to patients, translating into services that address unmet patient needs in our communities. Looking ahead to the future of our department over the next five years, we are also committed to establishing a new academic space for the Illinois Eye and Ear, adding a new Illinois Eye and Ear building that will complement our clinical space and cement the strong foundation of our department, which has advanced medical innovation and transformed patients’ lives for over 160 years.

We are excited to welcome new faculty members to our department, who bring a depth of expertise and experience that will continue to drive our mission forward. We’ve made great strides in further building our research programs, creating a supportive environment, and developing collaborations with the College of Medicine that encourage a robust culture of innovation. We remain grateful for the support of our alumni and friends, who passionately believe in our mission and continue to sustain our global eye initiatives through their generous contributions and support of events such as our IllinoisEye Ball. By bringing people together with diverse backgrounds and perspectives, our program is made stronger, propelling us forward in our pursuit to provide a world-class training experience to future thought leaders in vision science, pioneer cutting-edge ophthalmic research, and improve the quality of life of those we serve.

Our focus on addressing the needs of our current generation of trainees has resulted in the recruitment of residents and faculty who are more diverse, understanding that diversity leads to better outcomes in patients, a better environment to work in, better decisions, and progress for all. Additionally, we have developed special tracks for our residents that include a focus on education, research and innovation, global ophthalmology, and healthcare administration that create a personalized experience for our trainees. We believe this program will provide our trainees with a strong foundation for their future careers and will further elevate our department.

I am grateful to all of our faculty, staff, and trainees who continue to pursue excellence. Because of your dedication, we remain an international leader in visual science research, education, and patient care.

All my best,

R.V. Paul Chan, MD, MSc, MBA, FACS
Professor and Head, Department of Ophthalmology and Visual Sciences
The John H. Panton, MD Professor of Ophthalmology
Over the past 100 years, ophthalmology residency programs have evolved from environments in which trainees would spend a significant amount of time in the hospital to systems in which trainees cared for sicker, more complex patients in an outpatient setting. By the 1980s, more holistic residency programs started to develop, focusing on increasing professional satisfaction and decreasing burnout, and emphasizing the quality of the entire learning experience, including relationships with faculty, and professional development opportunities. Residency programs have now evolved to address the needs of a new generation of learners. The residency programs of the future will require trainees to be able to translate rapidly expanding medical knowledge into bedside clinical practices utilizing artificial intelligence and other new technologies.

Additionally, over the past decade, the residency application process for ophthalmology programs nationwide has become increasingly competitive, with the average prospective trainee applying to 70 or more programs. At the same time, the number of medical school graduates entering the field of ophthalmology has decreased, while the demand for eye care services has significantly increased. Academic ophthalmology residency programs have had to address the evolving landscape of medical education, offering personalized curriculums, holistic interview processes, and more well-rounded educational experiences. Programs across the country have begun offering residents more input over their training experience, encouraging active participation in developing their own education plan to meet their career interests.

With a strong national reputation for innovation and clinical excellence in its residency and fellowship training programs, The University of Illinois Chicago College of Medicine’s Illinois Eye and Ear Infirmary (IEEI) Residency in Ophthalmology has set a high standard for its residency program, training many of the top ophthalmologists and vision scientists in the country and serving the eye care needs of the local Chicago community for more than 160 years.

In 2021, the Department of Ophthalmology & Visual Sciences introduced optional residency tracks in Education, Executive Management, Global Ophthalmology, and Research. These tracks give trainees a more personalized experience to help prepare them for the future of ophthalmology. Peter MacIntosh, MD, Director of the Ophthalmology Residency Program states, “At IEEI, our vision is to build an innovative program that suits the different needs of different trainees. Through this type of customizable curriculum, we strive to train the best ophthalmologists who will become leaders in our field.”

The IEEI’s residency program continues to have a general eye clinic (GEC) that is fully staffed by fellows and faculty, giving trainees the opportunity to own all aspects of the patient management experience and gaining valuable real-world experience. It promotes a team-oriented culture, encouraging residents to work together to take care of patients across the state of Illinois. Luis Alejandro Acaba-Berrocal, MD, a PGY4 Senior Resident and Chief Resident pursuing a vitreoretinal surgery fellowship, noted that UIC’s specialized internship experience and exposure to varied and complex clinical and surgical pathology experiences were critical influencing factors in his decision to select UIC for his residency.

“Specialized internships where the majority of the rotations were directly related to ophthalmologic pathology such as rheumatology and infectious disease was a great asset and provided me with an advantage when I started my full year of ophthalmology as a PGY2. I feel very prepared for fellowship and future practice thanks to the training here. I have had outstanding, world-renowned mentors that have treated me as part of their family. Everyone in the residency strives to help you succeed and reach your career goals.”

Continued on page 6...
IMAGE, TOP: Faculty member Jose de la Cruz, MD offers guidance to a resident (2009).
IMAGE, ABOVE LEFT: Lindsay Machen, MD (R’19) presents her research at the 2019 Alumni Day Symposium.
IMAGE, ABOVE RIGHT: Resident Class of 2026.
Additionally, UIC’s residency program values learning opportunities outside of the clinic and operating room. Residents are given the opportunity to study ophthalmology globally in Brazil, Thailand, Japan, and India. They are allocated time for monthly dedicated wet lab experiences, are encouraged to publish meaningful research, and frequently attend ophthalmic surgical training courses. They participate annually in the Illinois Eye Review Course to help improve their standardized exam results.

Kevin Heinze, MD, Oculoplastic and Reconstructive Surgery Fellow and Resident Alum ’22 says, “UIC does a great job empowering and supporting its trainees to be self-sufficient. It requires you to collaborate well with a team of physicians, technicians, and support staff to ensure patients receive the care they need.”

Van Ann Tran, MD, Assistant Professor in the Department of Ophthalmology and Visual Sciences, is a recent addition to the faculty and has been impressed with the strength of the training program. “The residents work hard together and are friends outside of work. The program provides structured mentorship to guide their interests. We want to train high quality ophthalmologists and provide tools to help them achieve their desired goals; thus our residency program is extremely well-rounded.”

UIC’s program works to attract more underrepresented groups in medicine, and current trainees have spearheaded the establishment of a minority pipeline program called the Illinois Ophthalmology Pipeline (IOP). The IOP program communicates with national organizations such as the Student National Medical Association and the Latino Medical Student Association to reach out to interested residency candidates and offer clinical and research experiences with IEEI faculty. The Department also actively supports the Minority Ophthalmology Mentoring (MOM) Program that was developed by the American Academy of Ophthalmology (AAO).

“With our holistic approach to conducting interviews, we consider the whole applicant,” says Dr. MacIntosh. “If we don’t look closely beyond scores and grades, we have found we can miss excellent candidates that have important qualities other than good test taking skills, however, and we have been able to find these with our holistic process - things like leadership, real life work experience, DEIA work, and research, just to name a few.”

Moreover, IEEI’s residency program promotes diversity at all levels. Faculty from diverse backgrounds and training programs are targeted for recruitment, and there are a number of researchers...
focused on health equity. Female residents are encouraged to participate in Women in Ophthalmology (WIO) and are supported to attend the WIO annual meeting.

“It is essential that we increase diversity in the field of ophthalmology to better address the needs of our diverse patients,” asserts Deepak Edward, MD, Vice Chair for Education. “When providers reflect similar life experiences and perspectives of those in the underserved populations for which we provide care, health care outcomes have been shown to improve and health disparities decrease. Ophthalmology is one of the least diverse medical fields nationwide, so the Department of Ophthalmology and Visual Sciences has made it an imperative that we increase our diversity initiatives and encourage development of underrepresented groups in medicine.”

R.V. Paul Chan, MD, MSc, MBA, Department Chair, concludes, “Our residency program has evolved over the past decade and we are building on a strong foundation to better prepare our trainees for their futures in our field. We remain committed to training the best and brightest, giving them the resources and tools they need to be successful, and providing superlative care to underserved populations in our community.”
AN ENTREPRENEURIAL APPROACH TO VISION RESEARCH

With innovations occurring across all fields of medicine, the Department of Ophthalmology and Visual Sciences at UIC has made it a priority to promote a culture of entrepreneurship and collaboration, providing the infrastructure needed to pursue groundbreaking ideas, while guiding researchers on the journey to transformational application of their discoveries for the care of patients worldwide.

UIC’s College of Medicine has been successful in its efforts to take biomedical research discoveries through the stages of development leading to successful business launch. Recent initiatives such as the COMassist program, established in 2021 by Michael Flavin, PhD, to help bring UIC College of Medicine technologies to commercialization, have assisted in the founding of 11 companies, originating or spun out of discoveries from COM researchers. In the Department of Ophthalmology and Visual Sciences, several faculty members have experienced recent success in translating their discoveries into novel treatments, medical diagnostics, and devices that offer new opportunities to prevent, treat, and cure eye diseases. Six of the 11 companies recently founded were focused on ophthalmology breakthroughs that improve care for patients.

“The ability for research discoveries at universities to become therapies and diagnostic tools for patients relies upon collaboration with industry and the ability for our faculty to launch companies that will help take their discoveries to clinical care,” says Mark Rosenblatt MD, PhD, MBA, MHA, G. Stephen Irwin Executive Dean of the University of Illinois College of Medicine. “The success we have seen in the Department of Ophthalmology and Visual Sciences is just one example of how effective COMassist and Dr. Flavin have been in creating a culture of entrepreneurship within our college of medicine that will ultimately help millions of patients around the world.”

The Department’s entrepreneurship activities date back several decades. Morton F. Goldberg, MD, Chairman of the Department from 1970 to 1989, prioritized building a research program that would become highly productive and nationally renowned as a leader in discovery. His first two faculty recruits were clinician-scientists, and he converted space in the old infirmary building into wet labs for them to conduct their research. Twenty years later, the department’s research program had grown to several dozen researchers, and support staff including a librarian, scientific photographers, artists, editors, and development staff. The Lions of Illinois Eye Research Institute, a state-of-the-art research facility, was constructed and housed an entire floor dedicated to in-patient care, a Library, and three floors of wet lab and research space. Faculty members were eager to develop both the research and clinical programs, working hard to increase the number of patients, and getting both local and national research grants. Gholam A. Peyman, MD, well known for his contributions to LASIK eye surgery, was a pioneer in the development of the surgical technique of vitrectomy while at the Illinois Eye & Ear Infirmary. During his decades of inventing new techniques, he acquired more than 200 patents under his name and private companies invested in making new equipment for his surgeries.

A second Department of Ophthalmology and Visual Sciences faculty member, Allen Putterman, MD – who recently retired from clinical practice – invented several instruments for ophthalmology and plastic surgery which are currently sold commercially. These early commercial successes have helped shape the path of innovation in research that the department currently experiences.

Deepak Shukla, PhD, Marion H. Schenk Esq. Professor in Ophthalmology for Research of the Aging Eye; Vice Chair for Research; and Director of the Ocular Virology Laboratory in the Department of Ophthalmology and Visual Sciences, has successfully explored new therapeutic interventions for ocular herpes, and discovered new antiviral drugs and delivery
mechanisms that can reduce or eliminate herpes infections in the eye. He states, “With a focus on innovation, collaboration, and translational research, we aim to make significant contributions that positively impact patient outcomes and shape the future of ophthalmic healthcare.”

By fostering a vibrant research culture within the department that encourages curiosity, creativity, and collaboration among researchers, clinicians, and students, Dr. Shukla and his colleagues can leverage the diverse expertise present throughout the department to tackle complex challenges and explore new frontiers in ophthalmic research.

“I am particularly passionate about bridging the gap between basic research and clinical practice,” says Dr. Shukla. “By fostering a close partnership, we can facilitate the translation of scientific discoveries into tangible clinical applications. This collaborative approach will not only enhance patient care but also provide valuable opportunities for our researchers to witness the direct impact of their work on improving the lives of individuals affected by eye diseases. Together, we will push the boundaries of knowledge, drive innovation, and make a lasting impact on the field of ophthalmology, improving the lives of patients worldwide.”

Sandeep Jain, MD, B.A. Field Professor of Ophthalmology, Director of the Translational Biology Laboratory, and Director of the Dry Eye & ocular GVHD Clinic, is one of the Department’s clinician-scientists successfully bridging that gap between basic research and clinical practice. His closely intertwined research lab and clinic focus on severe dry eye and ocular surface disease due to inflammatory and immune system disorders. “We have established a unique translational research program that makes feasible the discovery and development of novel treatments for Dry Eye and ocular GVHD,” explains Dr. Jain. “This program comprises of a highly specialized Dry Eye and oGVHD clinic for patient care, an advanced translational molecular biology laboratory for uncovering disease mechanisms, and a highly motivated team who seamlessly connect these components. My clinical practice and basic laboratory research are highly integrated around this focus area, which has allowed me to investigate the biological basis of clinical observations in Dry Eye and oGVHD.” Through this translational research program, Dr. Jain discovered a novel mechanism for inflammation in dry eye and oGVHD, and has subsequently received funding from sources...
such as the National Eye Institute (NEI) and Research to Prevent Blindness (RPB), and has been awarded multiple patents for new patient therapies.

Dr. Jain has fully embraced the mission of academic entrepreneurship in the Department. In collaboration with the UIC Office of Technology Management (OTM), Dr. Jain’s technology commercialization efforts have led to a successful spin-off start-up (Selagine, Inc.) and licensing agreements with Neutrolis, Inc. “The Department supports our innovation by facilitating multidisciplinary collaborations within UI Health, making feasible powerful strategies, such as deep phenotyping that are so critical for transformational breakthroughs. New therapies improve the quality of life of patients, thus bringing practical, real-world benefits of the University’s investments in the research enterprise.”

Ali Djalilian, MD, Searls-Schenk Professor of Ophthalmology and Director of the Stem Cell Therapy and Corneal Tissue Engineering Laboratory, is a clinician-scientist whose research goal is to develop regenerative therapies for the cornea and ocular surface. He is a leading investigator in the use of Mesenchymal Stem Cells and their secreted factors for corneal diseases. To further advance these potential therapies, the COMassist program has helped him launch two companies to develop novel regenerative and stem cell-based treatments for corneal injuries and diseases. Funding from federal agencies including the US Department of Defense and National Institutes of Health have been critical to most of their group’s preclinical and early phase clinical studies, a precursor to establishing efficacy and proof of concept for commercialization. Previous innovations have included the creation of a portable telemedicine device combining an ophthalmoscope and a cell phone, to assist clinicians treating patients in underserved regions of the world.

“The Department of Ophthalmology and Visual Sciences provides an extremely supportive environment for entrepreneurial exploration,” said Dr. Djalilian. “Researchers in the department have access to state-of-the-art facilities and technologies to conduct the most cutting-edge investigations, and benefit from a culture of collaboration and entrepreneurship that embraces innovation. We are particularly grateful to our entrepreneur-in-residence, Dr. Flavin, who has been instrumental in these efforts.”

Jennifer Lim, MD, Marion H. Schenk Esq. Chair in Ophthalmology for Research in the Aging Eye and Director of the Retina Service at UI Health, arrived at UIC in 2007 to build a retina clinical trials team, which has led to more than 50 clinical trials being conducted at UIC since that time. She has contributed to phase 1, 2, 3 & 4 clinical trial studies and has observed the power of research in impacting patient care. “In my career, numerous breakthrough therapies for AMD, diabetic macular edema, and vein occlusion have become available to patients because of clinical trials research. We now have treatments that can actually improve and restore vision, and this will only increase going forward with the novel therapies such as genetic therapies and drugs with novel mechanisms of action. I am proud of the fact that our patients have access to new therapies within the context of these clinical trials and that our clinicians are aware of the latest proven therapies and offer these to our patients at UIC. This helps to address disparities of care that may otherwise affect our inner-city population.”

The Biomedical Optics and Ophthalmic Imaging Laboratory, headed by Xincheng Yao, PhD, is housed in the Lions of Illinois Eye Research Institute (LIERI) and focuses on new development of ophthalmic instrumentation and imaging technology to advance retinal study, disease diagnosis, and treatment evaluation. Through his research at UIC, Dr. Yao founded a company called Biolight Engineering, LLC, which is working to develop a portable pediatric ultra-widefield fundus camera that will better assist in prompt screening to prevent visual impairment and blindness due to retinopathy of prematurity. Dr. Yao credits part of his research success to the infrastructure and support received by the Department of Ophthalmology and Visual Sciences. “My primary appointment is with the Department of Biomedical Engineering. However, my lab is clustered with Ophthalmology groups, which provide us with plenty of supports and collaborative opportunities for productive research.”

Andrius Kazlauskas, PhD, Professor of Ophthalmology and Physiology & Biophysics, spent multiple decades in academia working to develop new drug therapies for diabetic retinopathy before closing his research lab at Harvard Medical School and joining the La Roche research lab in Basel, Switzerland with the goal of speeding up the process of drug discovery. “Most researchers at my previous institution,” he stated, “were encouraged to start products, patent them, and start a company. I learned working for a drug company, however, that it’s very hard to do that successfully in academia. Effective infrastructure and resources are motivating factors in driving discovery and entrepreneurship.”

In 2017, Dr. Kazlauskas returned to academic research, joining the faculty at UIC to resurrect his research to improve current approaches to treatment and prevention of diabetic retinopathy.

“Effective infrastructure and resources are motivating factors in driving discovery and entrepreneurship.”

Andrius Kazlauskas, PhD
Professor of Ophthalmology and Physiology & Biophysics

“Effective infrastructure and resources are motivating factors in driving discovery and entrepreneurship.”

Andrius Kazlauskas, PhD
Professor of Ophthalmology and Physiology & Biophysics
in patients. “If I’m going to be successful in making an impact on patient care, the way I’m going to do that is in understanding pathogenesis of the disease – that’s what drug companies need in order to choose targets to make drugs – the biomarkers and the resolution of pathogenesis.

“The most useful thing I can contribute as a basic researcher is to better understand the disease – to be able to answer the questions that will enable others to make drugs that will ultimately benefit patients. One of the benefits of being at UIC is the proximity to other researchers – clinicians in particular – and being able to interact with other departments. When you’re working with other people you can come up with better products than you might come up with on your own. There is more opportunity for collaboration – for example I’m just starting an Artificial Intelligence project with Darvin Yi, PhD. His presence, and the Chair’s encouragement, make this type of project possible. Additionally, the Department provides institutional support and funding for new and emerging ideas. It allows you to figure out what works; even if some of the ideas are wrong, having that flexibility to innovate is very important.

“Innovative advancements and entrepreneurship are at the core of our Department’s culture,” says Jason McAnany, PhD, Director of the Clinical Psychophysics and Electrophysiology Laboratory. “Members of the Department of Ophthalmology and Visual Sciences have access to several systems of support to rapidly move ideas developed in the lab to clinical practice. As an example, the ORBIT Lab (Ophthalmic Research in Bioengineering, Innovation, and Technology) provides interdisciplinary ophthalmic medical device development. Our Department has a record of success in working with the ORBIT Lab and the UIC Office of Technology Management to develop innovative ideas into products that can be put into widespread use. Our faculty have additional opportunities to further innovative projects through collaboration with Ai-O (Artificial Intelligence in Ophthalmology), a Center of Excellence for artificial intelligence research, theory, applications, and education in Ophthalmology.

“My laboratory recently received a US patent for a novel eye chart that we believe will accurately identify early neural dysfunction of the retina, which cannot be detected by traditional visual acuity measurements. There are fundamental gaps in our understanding of how gene mutations and other pathological mechanisms result in vision loss. Our approach has been to study questions of clinical importance, which can lead to entrepreneurial opportunities. As a basic research lab working closely with our clinical colleagues in the retina, glaucoma, and neuro-ophthalmology services, we are fully invested in advancing patient care and understanding eye diseases.”

Entrepreneurship in research allows clinicians and scientists to tackle potential challenges, pursue big ideas, and create hope for millions of patients suffering from eye disease. The Department of Ophthalmology and Visual Sciences at UIC nurtures these aspirations by creating a research ecosystem ripe for expanding new horizons and transforming the future of ophthalmology and patient care.
In Fall 2022, the clinical operations for the Department of Ophthalmology & Visual Sciences at the Illinois Eye and Ear Infirmary moved to the brand new Specialty Care Building (SCB) at UI Health. The state-of-the-art, 200,000-square-foot facility features specialty clinics, imaging and diagnostic services, pharmacy services, and is home to the Bruno & Sallie Pasquinelli Outpatient Surgery Center.

"We designed the lanes in an efficient manner to permit easy flexibility from one service to another if needed. The design is also more efficient and allows us to see more patients in the same time. **Patients continue to remark on how much better this building is for them.** It’s easier to navigate, important resources are closer together, and the space is just overall nicer here!"

Peter MacIntosh, MD, Residency Program Director

"The SCB provides a welcoming, bright, state-of-the-art facility commensurate with the world class care we provide to our patients! I love being able to collaborate and consult with my colleagues on the same floor and to operate in the same building. This has made it **easier to help patients with multiple ocular conditions.** Everyone appreciates the comfortable, bright environment and it shows!"

Jennifer Lim, MD, Retina Service Director

"I continue to be impressed with the courtesy and **ease of the check in process** at the Specialty Care Building and how beautiful the facility is”

- IEEI Patient, June 2023
“For me, the move to the Specialty Care Building has completely transformed our department for the better. There is a new sense of morale among colleagues, and patients are far happier with the facilities. Speaking to the resident experience, from the access to brand new clinical and diagnostic equipment as well as the enhanced OR space allowing for increased resident surgical volume, we could not be more excited about the future of our residency program in our new home!”

Paul R. Parker, MD, PGY4 Chief Resident

“The Specialty Care Building was designed to enhance coworking and collaboration. Our collective clinical expertise coupled with new state-of-the-art technology has allowed us to deliver unparalleled ophthalmic care and an exceptional patient experience. By breaking down our silos, we have improved communication between services and streamlined clinical workflows. This benefits everyone because healthcare is truly a team sport.”

Jack VanOverloop, MS-HSM, Clinic Director

“Many of our patients comment on the increased efficiency and how nice our new building is. They feel cared for in a much more peaceful and pleasant environment. Our facilities are now on par with our level of expertise and the complexity of the care we provide.”

Maria Soledad Cortina, MD, General Eye Clinic Director
“The SCB has elevated the level of care that we provide at UIC in every possible way. We provide the very highest and most technologically advanced care possible in a very pleasant and patient-centric environment.”

Ahmad Aref, MD, MBA
Medical Director

“The new SCB has had a profoundly positive effect on patient care, elevating the quality of services we provide. With state-of-the-art facilities and advanced medical technologies, our team can deliver more efficient, patient-centric care, ensuring better outcomes and improved patient satisfaction.”

Pete Setabutr, MD, Oculoplastic & Reconstructive Surgery Service Director

“My favorite feature of the new building is the OR space and perioperative workspaces, which facilitate efficient communication between team members.”

Neil Sheth, MD, MBA, PGY4
“Moving to the SCB helped our teams take better care of patients and made a big difference in my day to day quality of life at work. Updated equipment helps us be efficient and the team workspace areas help facilitate collaboration and a better community feel.”

Katherine Lucarelli, MD
R’23, 2023 Chief Resident
At the heart of the Department of Ophthalmology and Visual Sciences at the Illinois Eye and Ear Infirmary (IEEI) lies a profound belief in the power of diversity, equity, inclusion, and accessibility, recognizing that a diverse community of learners fosters innovation, enriches perspectives, and ultimately enhances patient care.

One of the Department’s newest educational initiatives, the Illinois Ophthalmology Pipeline (IOP), is an active commitment to cultivating a medical community that reflects the rich diversity of its patient population and society as a whole. The Illinois Ophthalmology Pipeline provides longitudinal resident and faculty mentorship to underrepresented in medicine (URiM)* medical students at the University of Illinois College of Medicine and supports them in becoming more competitive residency applicants.

The IOP was launched in 2021 by two IEEI residents, Tochukwu Ndukwe, MD (Resident Class of ’25) and Kevin Heinze, MD (Resident Class of ‘22, Fellow ’24). Together with input from faculty advisors Pooja Bhat, MD and Peter MacIntosh, MD, a framework for the program was created. The goal of the IOP is to equip the next generation of URiM healthcare professionals with the skills and knowledge necessary to maximize their success.

“The program provides immersive experiences into the field of ophthalmology with the goal of inspiring students to pursue this specialty early in their medical education”, Dr. Ndukwe explains. These experiences have included Clinical Skills Nights, Eyesi® Surgical Simulator events, suturing wetlabs, and shadowing opportunities with current residents and faculty in the clinic, operating room, and inpatient settings. Program mentees have also been paired up with Department mentors who will offer continued guidance throughout their years in medical school.

*URiM medical students include Black individuals, Hispanic/Latinx individuals, and Native American individuals (American Indian, Alaskan Native, Native Hawaiian, and Pacific Islander).
As one of the only ocular oncology programs in the Midwest, the University of Illinois Chicago’s Ocular Oncology Service at the Illinois Eye and Ear (IEE) serves as a major regional referral center for patients with intraocular tumors. IEE ocular oncologists work closely with hematology/oncology, radiation oncology, radiology, and operating room staff to provide the most advanced treatments and care for our patients.

“The field of ocular oncology is a very special field,” says William F. Mieler, MD, Director of the Ocular Oncology Service. “Patients present with not only potential visual disturbances, they may also face life threatening scenarios, which is quite unique to ophthalmology. At the University of Illinois Chicago (UIC), we have a wonderful multi-specialty team in place, ready to fully assess, evaluate, and treat these challenging problems. The goals, of course, are to keep the patient healthy and preserve as much vision as possible. Significant advances in the field allow us to achieve these goals in the majority of cases.”

With extensive involvement in clinical trials and translational research, the Ocular Oncology Service is dedicated to improving the understanding of eye tumors and their diagnosis, and developing new therapies to improve patient survival and visual outcomes. Michael J. Heiferman, MD explains his “goal is to provide outstanding care to patients with tumors of the intraocular structures. I also hope to contribute to the scientific body of knowledge to help more patients with these rare diseases.”

Along with enrolling interested patients into several therapeutic and observational clinical trials, the Ocular Oncology Service works closely with other UIC centers to improve care and facilitate research. The service partners with the UI Health Biorepository to collect biospecimens as a research tool to advance clinical and translational research at UIC. They also collaborate with the UIC Cancer Center to offer a cell-based therapy clinical trial in uveal melanoma. As ocular cancers are relatively rare, some of the most impactful research conducted in recent years has involved large observational case series. Given the diverse patient population and large referral network of the Ocular Oncology Service at UIC, their maintenance of clinical research databases contributes to this scientific knowledge.

Dr. Mieler states he is “honored to be a part of this multi-specialty team” that is providing vision and life-saving care for its patients.

“We have a wonderful multi-specialty team in place, ready to fully assess, evaluate, and treat these challenging problems.”

William Mieler, MD
Director, Ocular Oncology Service
OPHTHALMOLOGISTS IN TRAINING: 2023-24

RESIDENTS

Class of 2023

Katherine Chen, MD, MS
MD—University of California-Irvine College of Medicine
Post-Residency—Cornea Fellowship, University of California, Irvine

Charles Frank, MD
MD—University of Michigan Medical School
Post-Residency—Comprehensive Ophthalmology Faculty, University of Michigan

Katherine Lucarelli, MD
MD—University of Wisconsin-Madison School of Medicine
Post-Residency—Oculoplastics Fellowship, University of California, Los Angeles

Mathew Margolis, MD
MD—Washington University-St. Louis
Post-Residency—Cornea Fellowship, Stanford University

Mohammad Sabbagh, MD
MD—University of Michigan Medical School
Post-Residency—Vitreoretinal Fellowship, University of Wisconsin, Madison

Sudarshan Srivatsan, MD
MD—University of Michigan Medical School
Post-Residency—Oculoplastics Fellowship, University of Utah

PGY4 (Class of 2024)

Luis Acaba-Berrocal, MD
Co-Chief Resident
MD—Sidney Kimmel Medical College, Thomas Jefferson University

Tala Al-Khaled, MD
MD—University of Illinois College of Medicine – Chicago

Johnathan Jeffers, MD
MD—University of Chicago

Michael Massengill, MD, PhD
MD/PhD—University of Florida

Paul Parker, MD, MS
Co-Chief Resident
MD—Rush University Medical Center
MS—University of Michigan

Stephanie Thermozier, MD
MD—University of Pittsburgh

PGY3 (Class of 2025)

Dara Baker, MD
MD—George Washington University

Michael Chen, MD
MD—University of Illinois College of Medicine – Chicago

Nikhila Khandwala, MD
MD—University of Michigan Medical School

Tochukwu Ndukwe, MD
MD—University of Michigan Medical School

Neil Sheth, MD, MBA
MD/MBA—Northwestern University Feinberg School of Medicine

Katherine Chen, MD, MS
MD—University of California-Irvine College of Medicine
Post-Residency—Cornea Fellowship, University of California, Irvine

Charles Frank, MD
MD—University of Michigan Medical School
Post-Residency—Comprehensive Ophthalmology Faculty, University of Michigan

Katherine Lucarelli, MD
MD—University of Wisconsin-Madison School of Medicine
Post-Residency—Oculoplastics Fellowship, University of California, Los Angeles

Mathew Margolis, MD
MD—Washington University-St. Louis
Post-Residency—Cornea Fellowship, Stanford University

Mohammad Sabbagh, MD
MD—University of Michigan Medical School
Post-Residency—Vitreoretinal Fellowship, University of Wisconsin, Madison

Sudarshan Srivatsan, MD
MD—University of Michigan Medical School
Post-Residency—Oculoplastics Fellowship, University of Utah

Luis Acaba-Berrocal, MD
Co-Chief Resident
MD—Sidney Kimmel Medical College, Thomas Jefferson University

Tala Al-Khaled, MD
MD—University of Illinois College of Medicine – Chicago

Johnathan Jeffers, MD
MD—University of Chicago

Michael Massengill, MD, PhD
MD/PhD—University of Florida

Paul Parker, MD, MS
Co-Chief Resident
MD—Rush University Medical Center
MS—University of Michigan

Stephanie Thermozier, MD
MD—University of Pittsburgh

Dara Baker, MD
MD—George Washington University

Michael Chen, MD
MD—University of Illinois College of Medicine – Chicago

Nikhila Khandwala, MD
MD—University of Michigan Medical School

Tochukwu Ndukwe, MD
MD—University of Michigan Medical School

Neil Sheth, MD, MBA
MD/MBA—Northwestern University Feinberg School of Medicine
PGY2 (Class of 2026)

Patricia Bai, MD
MD—Mayo Clinic Alix School
of Medicine

Nayanika Challa, MD
MD—The Ohio State
University College of Medicine

Eitan Katz, MD
MD—University of Illinois
College of Medicine – Chicago

Jeffrey Peterson, MD, PhD
MD/PhD—University of Miami
Leonard M. Miller School of
Medicine

Zaynab Sajjadi, MD
MD—Sidney Kimmel Medical
College, Thomas Jefferson
University

Ghasem Yazdanpanah, MD, PhD,
MPH, PhD
MD/MPH—Shahid Beheshti
University
PhD—University of Illinois
Chicago

PGY1 (Class of 2027)

Courtney Goodman, MD
MD—University of Miami
Leonard M. Miller School of
Medicine

Cassie Huang, MD
MD—University of Nebraska
Medical Center, College of
Medicine

Nina Luskey, MD, MPH
MD/MPH—UT Health San
Antonio, Long School of
Medicine

Gregory Tsougranis, MD
MD—Geisel School of
Medicine at Dartmouth

Catherine Wang, MD, MSL
MSL—Northwestern
University Pritzker School
of Law
MD—University of Illinois
College of Medicine –
Chicago

Michael Sun, MD, PhD
MD/PhD—University of Illinois
College of Medicine – Chicago

Resident Class of 2027.
CLINICAL FELLOWS

2021-22

CONTACT LENS
Hannah Yoon, OD
OD—New England College of Optometry
Residency in Optometry—Massachusetts Eye and Ear
Post-Fellowship—Jesse Brown VA Medical Center, Chicago, IL

CORNEA
Karen Hu, MD
MD—Icahn School of Medicine at Mount Sinai
PGY1—Santa Barbara Cottage Hospital, Santa Barbara, CA
Ophthalmology Residency—New York Eye and Ear Infirmary
Post-Fellowship—Saratoga Hospital, New York

CORNEA
Sherief Raouf, MD
MD—Stony Brook University School of Medicine
Ophthalmology Residency—Northwell Health Eye Institute
Post-Fellowship—Pisacano Eye Surgery and Laser Specialists, New York

GLAUCOMA
Brian Krawitz, MD
MD—Icahn School of Medicine at Mount Sinai
Ophthalmology Residency—Columbia University Irving Medical Center
Post-Fellowship—Pisacano Eye Surgery and Laser Specialists, New York

GLOBAL OPHTHALMOLOGY
Emily Cole, MD, MPH
MD/MPH—Tufts University School of Medicine
PGY1—NYC Health + Hospitals/ Lincoln
Ophthalmology Residency—Illinois Eye and Ear Infirmary at UIC
Post-Fellowship—Surgical Retina Fellowship, Kellogg Eye Center, University of Michigan

NEURO-OPHTHALMOLOGY
Kimberly Blankshain, MD
MD—Chicago Medical School
Ophthalmology Residency—University of Cincinnati
Post-Fellowship—Wheaton Eye Clinic, Wheaton, IL

OCULOPLASTIC AND RECONSTRUCTIVE SURGERY
Sruti Akella, MD
MD—Stony Brook University School of Medicine
PGY1—Memorial Sloan Kettering Cancer Center
Ophthalmology Residency—Montefiore Medical Center
Post-Fellowship—The Ohio State University, Columbus, OH

UNIVERSITY RETINA, 1ST YEAR
George Skopis, MD
MD—FIU Herbert Wertheim College of Medicine
PGY1—Mount Sinai Medical Center
Ophthalmology Residency—Georgetown University Hospital/ Washington Hospital Center

RETINA, 2ND YEAR
Monique Munro, MD
MD—University of Calgary
Ophthalmology Research Fellowship—University of Calgary
Ophthalmology Residency—University of Calgary
Uveitis Fellowship—Illinois Eye and Ear Infirmary at UIC
Post-Fellowship—Calgary, Alberta

RETINA—1ST YEAR
Daniel Wang, MD
MD—University of Illinois College of Medicine—Chicago
PGY1—Macneal Memorial Hospital
Ophthalmology Residency—New York Eye and Ear Infirmary

RETINA, 1ST YEAR
Alexis Warren, MD
MD—University of Kansas
PGY1/Ophthalmology Residency—University of Iowa Hospitals & Clinics

UVEITIS
Maura Di Nicola, MD
MD—Università Vita-Salute San Raffaele Facoltà di Medicina e Chirurgia
Ophthalmology Residency—Università degli Studi di Milano
Ocular Oncology Fellowship—University of Cincinnati College of Medicine
Post-Fellowship—Bascom Palmer Eye Institute, University of Miami

INTERNATIONAL CLINICAL FELLOWS

Ibrahim Alkilany, MD
International Fellowship in Glaucoma and Anterior Segment

Wuily A. Carpio Rosso Delgado, MD
International Fellowship in Uveitis

Panotsom Ngoywutagon, MD
International Fellowship in Cornea and Refractive Surgery

Purit Petpiroon, MD, FICO
International Fellowship in Glaucoma

Andrew Tsai, MBBS, MMed(Ophth), FRCOphth, FAMS, MCI
International Fellowship in Pediatric Retina

CLINICAL RESEARCH FELLOWS

Chunyu Guo, MD, PhD, MPH
Clinical Research Fellowship

Daniel Lee, MD
Post-Doctoral Fellowship in Oculoplastics
CLINICAL FELLOWS

2022-23

CORNEA
Nataliya Antonova, MD
MD—State University of New York Downstate Medical Center College of Medicine
PGY1/Ophthalmology Residency— SUNY Downstate Health Sciences University
Post-Fellowship—Private Practice in Long Island, NY

Andrea Arteaga Useche, MD
MD—Universidad Central de Venezuela – Escuela “Luis Razetti”
Ophthalmology Residency—Illinois Eye and Ear Infirmary at UIC
Post-Fellowship—Ocular Partners – Arbor Eye and Chicago Eye Institute, Chicago, IL

Bella Wolf, MD
MD—Albert Einstein College of Medicine of Yeshiva University
PGY1/Ophthalmology Residency— Icahn School of Medicine at Mount Sinai
Post-Fellowship—Greenwich Ophthalmology Associates, Stamford, CT

GLAUCOMA
Allyshah Allahdina, MD
MD—Howard University College of Medicine
PGY1/Ophthalmology Residency— Howard University Hospital
Post-Fellowship—Glucoma Consultants of Washington, Washington, DC

Michael Offutt, MD
MD—VUT Health San Antonio – Long School of Medicine
PGY1—Greenville Health System
Ophthalmology Residency—UT Health San Antonio
Post-Fellowship—Eye Associates, PLLC, San Antonio, TX

Yekaterina Joltikov, MD
MD—Sackler School of Medicine – New York
PGY1—Maimonides Medical Center
Ophthalmology Residency—Illinois Eye and Ear Infirmary at UIC
Post-Fellowship—Medical Eye Center, Medford, OR

OCULOPLASTIC AND RECONSTRUCTIVE SURGERY
Kevin Heinz, MD
MD—University of Michigan Medical School
PGY1—St Mary Mercy Livonia Hospital
Ophthalmology Residency—Illinois Eye and Ear Infirmary at UIC

Osama Al Deyabat, MBBS
MBBS—Jordan University of Science and Technology Faculty of Medicine
Ophthalmology Residency—King Abdullah University Hospital
Post-Fellowship—Neuro-Ophthalmology Fellowship, Houston Methodist Hospital

Hesham Gabr, MBBS
MBBS/Ophthalmology—Ain Shams University
Ophthalmology Residency—Duke University, Duke Eye Center

RETINA
Daniel Wang, MD
MD—University of Illinois College of Medicine – Chicago
PGY1—Macneal Memorial Hospital
Ophthalmology Residency—New York Eye and Ear Infirmary
Post-Fellowship—Retina Group of Washington

Alexis Warren, MD
MD—University of Kansas
PGY1—Ophthalmology Residency— University of Iowa Hospitals & Clinics
Post-Fellowship—University of Chicago, Chicago, IL

George Skopis, MD
MD—FIU Herbert Wertheim College of Medicine
PGY1—Mount Sinai Medical Center
Ophthalmology Residency—Georgetown University Hospital/ Washington Hospital Center
Post-Fellowship—Retina Associates of Sarasota, Sarasota, FL

UVEITIS
Madeleine Yehia, MD
MD—University of Balamand Faculty of Medicine and Medical Sciences
Ophthalmology Residency— American University of Beirut Medical Centre
Post-Fellowship—Vitreoretinal Fellowship, University of Chicago
OPHTHALMOLOGISTS IN TRAINING (CONTINUED)

CLINICAL FELLOWS

2023-24

CONTACT LENS

Alexander Hynes, OD
OD—University of Waterloo School of Optometry & Vision Science
Optometry Residency—University of Waterloo School of Optometry & Vision Science

CORNEA

Rachel Dandar, MD
MD—Wayne State University
School of Medicine
PGY1—Saint Mary Mercy Ophthalmology Residency—Eastern Virginia Medical School

CORNEA

Alex Hansen, MD
MD—University of Nebraska College of Medicine
PGY1—Broadlawns Medical Center Ophthalmology Residency—University of Arizona College of Medicine-Tucson

CORNEA

Imane Tarib, MD
MD—Faculty of Medicine and Pharmacy, University Sidi Mohamed Ben Abdellah, Fez-Morocco
Ophthalmology Residency—Military Teaching Hospital Mohamed V; Faculty of Medicine and Pharmacy of Rabat; University Mohamed V, Rabat-Morocco

GLAUCOMA

Anita Goyal, MD
MD—New York Medical College
PGY1—Metropolitan Hospital Ophthalmology Residency—New York Medical College, Westchester Medical Center

GLAUCOMA

Rana Torabi, MD
MD—Indiana University School of Medicine
PGY1—University of Illinois College of Medicine – Chicago Ophthalmology Residency—Indiana University School of Medicine

OCULOPLASTIC AND RECONSTRUCTIVE SURGERY

Kevin Heinze, MD
MD—University of Michigan Medical School
PGY1—St Mary Mercy Livonia Hospital
Ophthalmology Residency—Illinois Eye and Ear Infirmary at UIC

PEDIATRIC OPHTHALMOLOGY

Amanpreet Singh, MS, MBBS
MS in Ophthalmology—Guru Gobind Singh Medical College, Faridkot, Punjab
MBBS—Guru Gobind Singh Medical College, Faridkot, Punjab

RETIKA, 2ND YEAR

Hesham Gabr, MBBS
MBBS/Ophthalmology—Ain Shams University Ophthalmology Residency—Duke University, Duke Eye Center

RETIKA, 1ST YEAR

Nancy Faux, MD
MD—Tulane University School of Medicine
PGY1—Ochsner Clinic Foundation Ophthalmology Residency—Icahn School of Medicine at Mount Sinai/ Mount Sinai Hospital

RETIKA, 1ST YEAR

Frank Ma, MD, PhD
MD/PhD—Columbia University Post-Doctoral Fellowship in Ophthalmology—Columbia University
PGY1—University of California, San Francisco Ophthalmology Residency—University of California, San Francisco

UVEITIS

Meghan Smith, MD
MD—University of British Columbia
Ophthalmology Residency—University of Alberta
CLINICAL CARE

106,144 visits • 3,808 surgeries

Annual data from FY23
CONTACT LENS

The Contact Lens Service provides care to patients requiring medically necessary contact lenses and related services. Our doctors are nationally known for their clinical and research expertise and their ability to help patients with various complex corneal diseases including: Keratoconus, Post-corneal transplant management, Dry eye syndrome, Graft-versus-host disease (GVHD), Limbal stem cell deficiency, Sjögren’s syndrome, Neurotrophic keratitis, Corneal scarring, Stevens-Johnson syndrome, Post-LASIK, and Aphakia. We have extensive experience with all types of medically necessary contact lenses including scleral, hybrid and rigid contact lenses as well as customized soft contact lenses. The service also offers custom scleral lens options utilizing image guided and impression designs with Prosthetic Replacement of the Ocular Surface Ecosystem (PROSE) as well as EyePrint PRO devices for patients with severely compromised ocular function as a result of complex corneal disease.
Timothy T. McMahon, OD, FAAO
Professor of Ophthalmology
Vice-Chair for Optometry
OPTOMETRY SCHOOL
Illinois College of Optometry
RESIDENCY IN OPTOMETRY
Kansas City VA Medical Center
Clinical Interests
Medically necessary contact lenses; Corneal topography; Anterior segment diseases and injuries
Research Interests
Keratoconus and other corneal ectatic conditions and diseases; Dry eye; Blepharitis

Angelica Scanzera, OD, MPH, FAAO, FSLS
Assistant Professor of Ophthalmology
Director, Tele-Ophthalmology Service
Director, Contact Lens Fellowship
OPTOMETRY SCHOOL
New England College of Optometry
RESIDENCY IN OPTOMETRY
Captain James A. Lovell Federal Health Care Center
Clinical Interests
Medically necessary contact lenses for ocular surface disease (Dry Eye, Graft-versus-Host Disease, limbal stem cell deficiency, Sjögren’s, Stevens Johnson Syndrome) and corneal irregularity (keratoconus, post-corneal transplant, corneal scarring, post-LASIK, trauma)
Research Interests
Ocular surface disease; Scleral lenses; Access to eye care; Eye health equity

Ellen Shorter, OD, FAAO, FSLS
Associate Professor of Clinical Ophthalmology
Director, Prosthetic Replacement of the Ocular Surface Ecosystem (PROSE) Clinic
OPTOMETRY SCHOOL
Illinois College of Optometry
RESIDENCY IN OPTOMETRY
Jesse Brown VA Medical Center and Hines VA Hospital
CLINICAL FELLOWSHIP
Boston Foundation for Sight (PROSE)
Clinical Interests
Dry eye; Ocular Surface Disease; Chronic Graft-versus-host disease; Keratoconus; Therapeutic scleral lenses, Adenoviral conjunctivitis
Research Interests
Keratoconus and other corneal ectatic conditions and diseases; Dry eye; Blepharitis

Hannah Yoon, OD, MS
Assistant Professor of Ophthalmology
OPTOMETRY SCHOOL
New England College of Optometry
RESIDENCY IN OPTOMETRY
Mass Eye & Ear
CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Advanced Medically Necessary Contact Lenses)
Clinical Interests
Keratoconus; Dry eye; Graft-versus-host disease (GVHD); Sjögren’s syndrome; Aphakia; Post-surgical corneas
Research Interests
Ocular surface disease; Keratoconus; Scleral lenses; Eye health equity
CORNEA AND EXTERNAL DISEASE

The Cornea and External Disease Service manages patients with diseases of the front of the eye including corneal and conjunctival infections, keratoconus, cataracts, tumors of the iris and conjunctiva, blepharitis, dry eye, corneal scarring, complications of trauma and ocular surgery as well as hereditary corneal diseases like Fuchs’ Dystrophy. The widest array of non-surgical options are available through advanced drug research and compounding as well access to advanced collagen crosslinking for keratoconus. The service has extensive expertise in all forms of minimally invasive, selective corneal transplantation including DMEK, DSAEK/ DSEK, and DALK as well as traditional penetrating keratoplasty that provides patients with the widest array of treatment options. Those failing or not eligible for human corneal transplantation may qualify for our Artificial Cornea Program, the largest program of its kind in the Midwest for implanting keratoprostheses. The service has also pioneered access to state-of-the-art imaging technology to quickly and non-invasively diagnose a wide spectrum of diseases. Cornea specialists work closely with the Contact Lens Service on advanced contact lens therapies including custom PROSE therapy and impression based EyePrint PRO devices and provide access to the latest clinical trials for dry eye diseases, corneal transplantation and corneal infections.
CO-DIRECTOR

Ali R. Djalilian, MD
Searls-Schenk Professor of Ophthalmology
Director, Corneal Stem Cell and Tissue Engineering Laboratory
Co-Director, Cornea and External Disease Service
Co-Pi/Co-Director, UIC-NEI K12/Independent Clinician Vision Scientist (ICVS) Development Program

MEDICAL SCHOOL
University of Minnesota

RESIDENCY IN OPHTHALMOLOGY
University of Minnesota

CLINICAL FELLOWSHIP
Cincinnati Eye Institute (Cornea)
National Eye Institute / NIH (Uveitis)

RESEARCH FELLOWSHIP
University of Minnesota (Cornea)
National Eye Institute (Ocular Immunology)
National Eye Institute and National Human Genome Research Institute (Epithelial Biology)

Clinical Interests
Ocular surface disease; Limbal stem cell deficiency; Corneal and limbal stem cell transplantation; Immunologic diseases of the cornea

Research Interests
Stem cell based therapy; Corneal wound healing; Tissue engineering

Dimitri T. Azar, MD, MBA, FARVO
Dean Emeritus of the College of Medicine
Distinguished Professor of Ophthalmology, Bioengineering and Pharmacology
B.A. Field Chair in Ophthalmologic Research

MEDICAL SCHOOL
American University of Beirut, Lebanon

RESIDENCY IN OPHTHALMOLOGY
Mass Eye and Ear

CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary (Cornea)

RESEARCH FELLOWSHIP
Schepens Eye Research Institute (Cornea)

GRADUATE SCHOOL
University of Chicago (MBA)

Clinical Interests
Laser Vision Correction; Cornea and cataract surgery

Research Interests
Matrix metalloproteinases in corneal wound healing and angiogenesis; Refractive surgery; Optics; Accommodating intraocular lenses

M. Soledad Cortina, MD
Professor of Ophthalmology
Director, Comprehensive Ophthalmology Faculty Practice (COFP) and General Eye Clinic
Director, Artificial Cornea Program
Co-Director, Cornea Fellowship Program

MEDICAL SCHOOL
University of Buenos Aires School of Medicine, Argentina

RESIDENCY IN OPHTHALMOLOGY
Louisiana State University

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Cornea)

RESEARCH FELLOWSHIP
Louisiana State University, Neuroscience Center

Clinical Interests
Corneal transplantation including high risk grafts and keratoprosthesis; Keratoconus and collagen cross linking; Routine and complex cataract surgery

Research Interests
Retroprosthetic membrane formation in Boston keratoprosthesis patients; Optical properties of artificial corneas; Corneal nerves & their regeneration after injury

Jose de la Cruz, MD
Professor of Clinical Ophthalmology
Co-Director, Millennium Park Eye Center

MEDICAL SCHOOL
Ponce School of Medicine, Puerto Rico

RESIDENCY IN OPHTHALMOLOGY
New York Eye and Ear Infirmary

CLINICAL FELLOWSHIP
Massachusetts Eye and Ear (Cornea, Refractive)
Illinois Eye and Ear Infirmary at UIC (Refractive)

GRADUATE SCHOOL
Indiana University at Bloomington (MS)

Clinical Interests
Advances in keratoprosthesis transplantation; Anterior segment imaging in corneal and refractive surgery; Femtosecond technology for corneal transplantation; Laser assisted cataract surgery; Keratoconus; Intracorneal ring segments; Corneal crosslinking

Research Interests
Development of surgical devices for conjunctival manipulation; New techniques in refractive surgery and femtosecond assisted keratoplasty; Advanced technology intraocular lenses for correction of presbyopia and astigmatism

Sandeep Jain, MD
B.A. Field Professor of Ophthalmology
Director, Translational Biology Laboratory
Director, Dry Eye & ocular GVHD Clinic

MEDICAL SCHOOL
University of Delhi, India

RESIDENCY IN OPHTHALMOLOGY
Harkness Eye Institute, Columbia University

CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary, Harvard Medical School (Cornea)

RESEARCH FELLOWSHIP
Wilmer Eye Institute (Cornea), The Johns Hopkins Medical School

Clinical Interests
Dry Eye and ocular surface disease; Ocular graft-versus-host-disease; Corneal neuropathic pain; Sjogren’s syndrome; Neurotrophic keratitis

Research Interests
Mechanisms of ocular surface disease; Translational research; Clinical Trials; Drug development; Academic entrepreneurship
CORNEA AND EXTERNAL DISEASE (CONTINUED)

Mark I. Rosenblatt, MD, PhD, MBA, MHA
G. Stephen Irwin Executive Dean, University of Illinois College of Medicine
Interim Chief Executive Officer, University of Illinois Hospital & Clinics
Associate Vice Chancellor for Physician Affairs, UI Health
UI Distinguished Professor of Ophthalmology
Director, Corneal Regenerative Medicine Laboratory

MEDICAL SCHOOL
University of Miami (PhD, Biochemistry)
RESIDENCY IN OPHTHALMOLOGY
Massachusetts Eye and Ear Infirmary
CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary (Cornea)
RESEARCH FELLOWSHIP
Schepens Eye Research Institute

GRADUATE SCHOOLS
New York University (MBA)
University of Illinois Chicago (MHA)

Clinical Interests
Corneal disease; Cataract; Refractive surgery; Ocular pain; Dry Eye disease; Keratoplasty

Research Interests
Ocular regenerative medicine; Corneal stem cells; Corneal nerve regeneration: Angiogenesis; Tissue engineering; Biomaterials; Nanomedicine

Hajirah N. Saeed, MD, MPH
Visiting Associate Professor of Ophthalmology

MEDICAL SCHOOL
Loyola University Stritch School of Medicine
RESIDENCY IN OPHTHALMOLOGY
Loyola University Chicago

CLINICAL FELLOWSHIP
Massachusetts Eye and Ear, Harvard Medical School (Cornea)

GRADUATE SCHOOL
Harvard School of Public Health (MPH)

Clinical Interests
Severe ocular surface disease; Stevens Johnson syndrome/toxic epidermal necrolysis (SJS/TEN); Advanced corneal transplantation including Boston keratoprosthesis; Pediatric cornea; Keratoconus and crosslinking

Research Interests
Prevention, diagnosis, and management of SJS/TEN; Database research and mining; Corneal collagen crosslinking in pediatric patients; Sustainable eye banking in the developing world

Joel Sugar, MD
Professor Emeritus of Ophthalmology

MEDICAL SCHOOL
University of Michigan
RESIDENCY IN OPHTHALMOLOGY
Washington University, St. Louis
CLINICAL FELLOWSHIP
University of Florida, Gainesville (Cornea)

Clinical Interests
Corneal disorders; Herpes simplex; Herpes zoster; Congenital anomalies of the anterior eye

Research Interests
Keratoplasty outcomes; Herpes; Fuchs’ dystrophy

EMERITUS FACULTY
The Dry Eye and ocular GVHD Clinic provides advanced diagnostics and customized treatments that are based on in-house translational research for various types of dry eye diseases such as ocular GVHD, Sjogren’s Syndrome, dry eye due to rheumatoid arthritis, Steven Johnson Syndrome, and ocular rosacea. We have established a unique translational research program that facilitates the discovery and development of novel treatments for Dry Eye Disease and ocular GVHD. This program comprises a highly specialized ocular GVHD clinic for patient care, an advanced translational molecular biology laboratory for uncovering disease mechanisms, a dedicated clinical trial center for developing new therapies, and a highly motivated team that seamlessly connects all of these components.
GLAUCOMA

Glaucoma is the leading cause of irreversible blindness in the world. Our Glaucoma Service is nationally recognized as a center for the diagnosis and treatment of glaucoma in adults and children. It is a site for testing investigational new drugs and has been a leader in the use of laser and surgery to treat all forms of the disease. Our service offers comprehensive care and management of all forms of glaucoma, including specialized diagnostic testing and the latest technologies for laser and surgical treatment. Faculty members are actively involved in glaucoma research and are nationally recognized as experts in their field.
Ahmad A. Aref, MD, MBA
Professor of Ophthalmology
Vice-Chair for Clinical Affairs
Medical Director
Director, Glaucoma Fellowship Program

MEDICAL SCHOOL
Northwestern University

RESIDENCY IN OPHTHALMOLOGY
Penn State Hershey Eye Center

CLINICAL FELLOWSHIP
Bascom Palmer Eye Institute (Glaucoma)

GRADUATE SCHOOL
University of Chicago (MBA, Economics and Strategic Management)

Clinical Interests
Complex cataract surgery; Glaucoma drainage implant surgery for advanced glaucomatous disease; Microinvasive glaucoma surgery for mild/moderate glaucomatous disease; Selective laser trabeculoplasty for open-angle glaucomas; Laser iridotomy for angle-closure glaucomas

Research Interests
Surgical techniques in complex glaucomas; Combined cataract and glaucoma surgical techniques and outcomes; Novel glaucoma medical therapies; Optic nerve imaging

Deepak P. Edward MD, FACS, FARVO
Professor of Ophthalmology
Vice-Chair for Education

MEDICAL SCHOOL
St Johns Medical College, Bangalore, India

RESIDENCY IN OPHTHALMOLOGY
Illinois Eye and Ear Infirmary at UIC

CLINICAL FELLOWSHIP
Washington University School of Medicine (Glaucoma)

FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Ophthalmic Pathology)

Clinical Interests
Medical and surgical management of all forms of glaucoma and cataracts associated with glaucoma; Complex cataract surgery; Ophthalmic pathology

Research Interests
Congenital glaucoma; Angle closure glaucoma; Pathophysiology of wound healing in glaucoma; Medical education; Pathophysiology of ocular disease; Ocular oncology

Jacob T. Wilensky, MD
Jacob T. Wilensky MD Professor in Ophthalmology

MEDICAL SCHOOL
Tulane University

RESIDENCY IN OPHTHALMOLOGY
Tulane University Affiliated Hospitals

CLINICAL FELLOWSHIP
Washington University, St. Louis (Glaucoma)

RESEARCH FELLOWSHIP
National Eye Institute (Glaucoma)

Clinical Interests
Diagnosis and treatment of glaucoma with special emphasis on laser therapy

Research Interests
Investigation of new drugs for glaucoma; Laser therapy treatment for glaucoma
The Neuro-Ophthalmology Service offers expert evaluations and treatment for neuro-ophthalmologic conditions, including: optic neuritis, idiopathic intracranial hypertension (pseudotumor cerebri), ischemic optic neuropathies, optic neuropathies of unknown etiology, ocular myasthenia gravis, cranial nerve palsies, thyroid eye disease and visual or oculomotor complications of stroke, brain tumors, multiple sclerosis and other neurological diseases. The service facilitates and interprets a wide range of diagnostic testing relevant to the diagnosis and management of neuro-ophthalmic diseases, including: Goldmann and Humphrey perimetry, infrared pupillometry, optical coherence tomography, electroretinography, lumbar punctures and magnetic resonance imaging. The service works closely with doctors in the University of Illinois Hospital and Health Sciences Systems’ Departments of Neurosurgery, Neurology, Radiation Oncology and Rheumatology to provide interdisciplinary, state-of-the-art treatments.

DIRECTOR
Peter W. MacIntosh, MD
Associate Professor of Ophthalmology
Director, Neuro-Ophthalmology Service and Fellowship
Director, Residency Program
Director, Global Ophthalmology Fellowship

MEDICAL SCHOOL
The Chicago Medical School

RESIDENCY IN OPHTHALMOLOGY
John H. Stroger, Jr. Hospital of Cook County

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Neuro-Ophthalmology)

CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary (Oculoplastics)

Clinical Interests
Optic neuritis; Papilledema; Myasthenia gravis; Double vision

Research Interests
Thyroid eye disease; Nonarteritic anterior ischemic optic neuropathy (NAION); idiopathic intracranial hypertension and facial paralysis

Brooke Johnson, DO
Assistant Professor of Clinical Ophthalmology
Associate Program Director, Neuro-Ophthalmology Fellowship

MEDICAL SCHOOL
Michigan State University College of Osteopathic Medicine

RESIDENCY IN NEUROLOGY
Advocate BroMenn Medical Center

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Neuro-Ophthalmology)

Clinical Interests
Neuro-Ophthalmology, Headache

Research Interests
Thyroid eye disease; Idiopathic intracranial hypertension; Nonarteritic anterior ischemic optic neuropathy

Anil Gulati, MD
Clinical Assistant Professor of Ophthalmology

MEDICAL SCHOOL
Jaywala Institute of Postgraduate Medical Education and Research, India

RESIDENCY IN NEUROLOGY
Illinois Eye and Ear Infirmary at UIC

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Neuro-Ophthalmology)
The Oculoplastic & Reconstructive Surgery Service provides assessment and treatment for conditions of the eyelids, orbit, face and lacrimal system. Systemic disease, trauma, birth defects and the aging process can alter the area around the eyes. Conditions such as blepharoptosis, ectropion, entropion, eyelid retraction, blepharospasm, epiphora, tumors of the ocular adnexa and orbit and fractures of the orbit are just a few of the conditions treated in this specialty. Patients can be seen at both the Illinois Eye and Ear Infirmary and the Millennium Park Eye Center.
The Pediatric Ophthalmology & Adult Strabismus Service offers general pediatric eye care, including exams for newborns and children up to 18 years of age. This service also provides other specialty clinics treating rare and unusual children’s eye disorders, including glaucoma and genetic, neurocutaneous, and neuro-ophthalmologic disorders. The doctors in this service specialize in strabismus (eye alignment disorders) in adults as well as children. Additional care providers include certified orthoptists and an oculoplastic and reconstructive surgeon.

DIRECTOR
Nathalie F. Azar, MD
Professor of Clinical Ophthalmology
Director, Pediatric Ophthalmology & Adult Strabismus Service

MEDICAL SCHOOL
Boston University

RESIDENCY IN OPHTHALMOLOGY
George Washington University

CLINICAL FELLOWSHIP
Wilmer Eye Institute (Pediatric Ophthalmology)

Clinical Interests
Adult strabismus; Graves ophthalmopathy; Paralytic and restrictive strabismus; Pediatric strabismus and amblyopia

Research Interests
Eye movement disorders; Surgical treatment techniques for strabismus; Amblyopia
Daniel E. Maidana, MD, PhD
Assistant Professor of Ophthalmology

MEDICAL SCHOOL
University of Buenos Aires School of Medicine, Argentina

GRADUATE SCHOOL
University of Barcelona School of Medicine, Spain

POSTDOCTORAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary, Harvard Medical School

RESIDENCY IN OPHTHALMOLOGY
Bellvitge Hospital, University of Barcelona School of Medicine, Spain

CLINICAL FELLOWSHIP
illness Eye and Ear Infirmary at UIC (Pediatric Ophthalmology and Adult Strabismus)

Clinical Interests
Pediatric ocular conditions including cataracts, strabismus, and retinopathy of prematurity (ROP)

Research Interests
Photoreceptor cell death; Photoreceptor neuroprotection; Retinal angiogenesis; Automated image processing

M. Cem Mocan, MD, MPH
Associate Professor of Ophthalmology

MEDICAL SCHOOL
Hacettepe University Faculty of Medicine, Turkey

RESIDENCY IN OPHTHALMOLOGY
Hacettepe University Faculty of Medicine, Turkey

CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary (Pediatric Ophthalmology and Strabismus)

CEDARS-SINAI MEDICAL CENTER (Pediatric Ophthalmology and Strabismus)

GRADUATE SCHOOL
University of Illinois Chicago

Clinical Interests
Pediatric glaucoma; Pediatric cataracts; Strabismus

Research Interests
Pediatric glaucoma; Amblyopia; Anterior segment dysgenesis; Strabismus

PART-TIME CLINICAL FACULTY

Javaneh Abbasiyan, MD
Clinical Associate Professor of Ophthalmology
Chief of Ophthalmology at Jesse Brown VA Medical Center

MEDICAL SCHOOL
University of Illinois College of Medicine – Chicago

RESIDENCY IN OPHTHALMOLOGY
Illinois Eye and Ear Infirmary at UIC

CLINICAL FELLOWSHIP
Children’s Hospital of Philadelphia (Pediatric Ophthalmology)

Clinical Interests
Pediatric Glaucoma, Pediatric Cataract, Pediatric anterior segment

Kimberly Curnyn, MD
Clinical Assistant Professor of Ophthalmology

MEDICAL SCHOOL
University of Illinois College of Medicine – Chicago

RESIDENCY IN OPHTHALMOLOGY
Rush University Medical Center

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Pediatric Ophthalmology)

Clinical Interests
Amblyopia Prevention; Childhood ocular trauma treatment and prevention

Research Interests
Global Ophthalmology; Ocular disease patterns identified in community eye care

R.V. Paul Chan, MD, MSc, MBA, FACS
John H. Panton, MD
Professor in Ophthalmology
(Pediatric Retina)

Felix Y. Chau, MD
Professor in Ophthalmology
(Pediatric Retina)

Lawrence Kaufman, MD, PhD
Clinical Assistant Professor of Ophthalmology
(Pediatric Neuro-Oph)

Peter MacIntosh, MD
Associate Professor of Ophthalmology
(Pediatric Neuro-Oph)

Hajirah N. Saeed, MD, MPH
Visiting Associate Professor of Ophthalmology
(Pediatric Cornea)
The Retina Service specializes in treating patients with both medical and surgical retinal vascular, degenerative, congenital, and hereditary conditions as well as vitreoretinal disorders. These disorders include: age-related macular degeneration, vein occlusion, sickle cell eye disease, ocular complications of diabetes, retinal detachment, vitreomacular adhesion, retinopathy of prematurity, retinitis pigmentosa, intraocular tumors, and severe eye trauma. The doctors in this service are skilled specialists in laser, intravitreal injections, and other medical treatment of the retina, and vitreoretinal surgery including complex retinal detachment repair. The doctors are involved in the latest cutting-edge medical and surgical clinical trials to advance the treatment spectrum of retinal conditions.
R. V. Paul Chan, MD, MSc, MBA, FACS
John H. Panton, MD Professor in Ophthalmology
Chair, Department of Ophthalmology and Visual Sciences
Director, Pediatric Retina and ROP Service
MEDICAL SCHOOL
Temple University
RESIDENCY IN OPHTHALMOLOGY
New York-Presbyterian Hospital, Cornell University
CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary (Retina)
GRADUATE SCHOOL
Weill Cornell Graduate School of Medical Sciences (MSc in Clinical Investigation)
GRADUATE SCHOOL
The University of Chicago Booth School of Business (MBA)
Clinical Interests
Adult and pediatric retinal disease including retinopathy of prematurity (ROP); Retinal vascular diseases; Eye trauma; Eye infections/endophthalmitis; Diabetic retinopathy; Age-related macular degeneration
Research Interests
Global ophthalmology; Telemedicine and tele-education; New methods of diagnosing and managing pediatric retinal disease

Felix Y. Chau, MD
Associate Professor of Ophthalmology
Director, Retinal Bioengineering Laboratory
MEDICAL SCHOOL
University of Iowa
RESIDENCY IN OPHTHALMOLOGY
Duke University Eye Center
CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Retina)
Clinical Interests
Pediatric and adult retinal diseases; Retinopathy of prematurity (ROP); Retinoblastoma; Rare congenital and inherited retinal diseases; Proliferative vitreoretinopathy (PVR); Diabetic retinopathy; Macular degeneration; Cystoid macular edema; Retinal detachment
Research Interests
Medical and surgical treatments; Experimental models and risk factors for retinal diseases; Engineering applications in ophthalmology

Michael J. Heiferman, MD
Assistant Professor of Ophthalmology
Associate Residency Program Director
MEDICAL SCHOOL
Northwestern University Feinberg School of Medicine
RESIDENCY IN OPHTHALMOLOGY
Northwestern University McGaw Medical Center
CLINICAL FELLOWSHIPS
Illinois Eye and Ear Infirmary at UIC (Vitreoretinal Surgery)
Stanford University, Byers Eye Institute (Ocular Oncology)
Clinical Interests
Ocular oncology, including uveal melanoma and ocular manifestations of systemic malignancy; Vitreoretinal surgery, including complex retinal detachments, diabetic retinopathy, and eye trauma; Medical retina including macular degeneration, vascular occlusions, drug toxicity, and endophthalmitis
Research Interests
Translational cancer research including tumor immunology and tissue biorepositing; Retinal imaging to identify biomarkers for prognosis and treatment guidance; Medical education

Robert A. Hyde, MD, PhD
Assistant Professor of Ophthalmology
Director, Inherited Retinal Disease Service
MEDICAL SCHOOL
Case Western Reserve University School of Medicine
GRADUATE SCHOOL
Case Western Reserve University School of Medicine
RESIDENCY IN OPHTHALMOLOGY
Illinois Eye and Ear Infirmary at UIC
CLINICAL FELLOWSHIPS
Kellogg Eye Center, University of Michigan (Vitreoretinal Surgery and Retinal Dystrophy)
Clinical Interests
Inherited retinal diseases; Vitreoretinal disorders; Gene therapy
Research Interests
Development of novel markers of visual function in patients with inherited retinal diseases; Preclinical studies and clinical trials
Yannek I. Leiderman, MD, PhD
Professor of Ophthalmology
Co-Director, Vitreoretinal Fellowship Program
Director, Vitreoretinal Microsurgery Laboratory

MEDICAL SCHOOL
George Washington University
National Institutes of Health Partnership (PhD, Molecular Pathobiology)

RESIDENCY IN OPHTHALMOLOGY
Massachusetts Eye and Ear Infirmary

CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary (Vitreoretinal Surgery)

Clinical Interests
Vitreoretinal surgical diseases; Diabetic eye disease; Complex retinal detachment; Proliferative vitreoretinopathy (PVR); Macular surgery; Treatment of aphakia and placement of secondary intraocular lenses

Research Interests
Effectiveness of ophthalmic surgical interventions in diseases of the retina and vitreous; High-fidelity modeling of novel surgical devices and experimental techniques in microsurgery

William F. Mieler, MD, FARVO
Cless Family Professor in Ophthalmology
UIC Distinguished Professor of Ophthalmology
Vice-Chair for Faculty Affairs
Director, Ocular Oncology Clinic
Director, Vitreoretinal Fellowship Program

MEDICAL SCHOOL
University of Wisconsin-Madison

RESIDENCY IN OPHTHALMOLOGY
Bascom Palmer Eye Institute

CLINICAL FELLOWSHIP
The Eye Institute, Medical College of Wisconsin (Retina-Vitreous)

CLINICAL FELLOWSHIP
Wills Eye Hospital (Ocular Oncology)

Clinical Interests
Diseases of the macula, retina and vitreous; Age-related macular degeneration; Diabetic macular edema; Venous occlusive diseases; Vitreoretinal interface disorders; Ocular oncology

Research Interests
Ocular pharmacology; Ocular drug delivery; Intraocular tumors; Ocular imaging; Biomarkers for diabetic macular edema (DME)

Lawrence J. Ulanski, MD
Clinical Associate Professor of Ophthalmology
Chief of Ophthalmology and Vitreoretinal Surgeon, Captain James Lovell Federal Health Care Center

MEDICAL SCHOOL
University of Michigan

RESIDENCY IN OPHTHALMOLOGY
William Beaumont Eye Institute

CLINICAL FELLOWSHIPS
University of Toronto, (Vitreo-Retina and Ocular Oncology)
Illinois Eye and Ear Infirmary at UIC (Uveitis)

Clinical Interests
Age-related macular degeneration; Uveitis; Ocular oncology and intraocular tumors; Surgical management of diabetic retinopathy, retinal detachment, proliferative vitreoretinopathy, and proliferative diabetic retinopathy; Surgical management of secondary intraocular lenses; Complex cataract surgery

Research Interests
Clinical trials in medical management of non-exudative & exudative macular degeneration; Novel treatments & clinical trials for diabetic retinopathy; Diabetic macular edema; Microvascular injury

Norman P. Blair, MD, FARVO
Professor of Ophthalmology

MEDICAL SCHOOL
Indiana University

RESIDENCY IN OPHTHALMOLOGY
Massachusetts Eye & Ear Infirmary

CLINICAL FELLOWSHIP
Retina Associates/Massachusetts Eye & Ear Infirmary (Retina)

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Ophthalmic Pathology)

RESEARCH FELLOWSHIP
Schepens Eye Research Institute

PART-TIME CLINICAL FACULTY
UVEITIS

Uveitis causes up to 20 percent of blindness in the United States. The Uveitis Service treats patients with inflammation of the uveal tract: the middle vascular layers of the eye critical to its normal function. Because of the rich circulation of blood throughout this area and its proximity to other important parts of the eye, the uvea is susceptible to immune disorders. Patients are referred to this service for the diagnosis and management of infectious and non-infectious ocular inflammatory conditions such as scleritis and anterior, intermediate, posterior and panuveitis. Treatment with steroid-sparing systemic immunomodulatory therapy is offered when appropriate. The service also performs procedures for its uveitis patients such as the insertion of steroid eluting implants as well as surgical management of complex uveitic cataracts. The service participates in clinical trials for novel therapeutics in uveitis and has established a uveitis research registry to conduct further clinical research studies in uveitis.

CO-DIRECTOR
Pooja Bhat, MD
Associate Professor of Ophthalmology
Co-Director, Uveitis Service
Associate Residency Program Director
Director, Medical Student Education
MEDICAL SCHOOL
Lokmanya Tilak Municipal Medical College and Hospital, India
RESIDENCY IN OPHTHALMOLOGY
Northwestern University
CLINICAL FELLOWSHIPS
Northwestern University (Uveitis)
Massachusetts Eye and Ear Infirmary (Ophthalmic Pathology)
RESEARCH FELLOWSHIP
Massachusetts Eye Research and Surgery Institution (Uveitis)
Clinical Interests
Scleritis; Anterior, intermediate and posterior uveitis; Infectious retinopathies; White dot syndromes
Research Interests
Systemic and local immunosuppression for ocular inflammatory conditions; Herpetic eye disease; Anti-retinal antibodies in autoimmune retinopathy; Imaging modalities in anterior and posterior uveitis

CO-DIRECTOR
Ann-Marie Lobo-Chan, MD, MS
Associate Professor of Ophthalmology
Co-Director, Uveitis Service
Director, Uveitis/Medical Retina Fellowship
MEDICAL SCHOOL
Louisiana State University New Orleans
RESIDENCY IN OPHTHALMOLOGY
Massachusetts Eye and Ear Infirmary
CLINICAL FELLOWSHIP
Massachusetts Eye and Ear Infirmary (Ocular Immunology/Uveitis)
GRADUATE SCHOOL
University of Illinois Chicago School of Public Health (MS in Epidemiology)
Clinical Interests
Diagnosis and management of ocular inflammatory disease, including infectious and non-infectious uveitis and scleritis
Research Interests
Diagnostic testing in infectious and non-infectious uveitis; Clinical trials for novel treatments of uveitis; Biomarkers in herpetic eye disease; Systemic infections and eye disease
LOW VISION

This specialized service introduces patients with low vision to technology and techniques to enhance their remaining sight and facilitate their independence. A low-vision optometrist and a certified low-vision therapist work as a team to provide clinical examination and visual skills assessment. Therapies include special optical and electronic devices, ergonomic equipment and new visual skills training to address routine daily tasks such as reading, writing, managing medication, cooking, and sign reading.

PATHOLOGY

The Ophthalmic Pathology Laboratory is a joint program of the Departments of Pathology and Ophthalmology that provides diagnostic services to patients and physicians within and outside Illinois. The laboratory is integrated with the other clinical laboratories in the University of Illinois Hospital and Health Sciences System, making it possible to utilize the latest cutting-edge diagnostic techniques in immunopathology and molecular pathology available in the diagnosis of ocular disorders.

DIRECTOR

Joan A. Stelmack, OD, MPH
Clinical Associate Professor of Ophthalmology
Director, Low Vision Service

OPTOMETRY SCHOOL
Illinois College of Optometry

GRADUATE SCHOOL
Johns Hopkins University (MPH)

Clinical Interests
Rehabilitation of patients with vision loss

Research Interests
Creating multicenter clinical trials and observational studies to evaluate rehabilitation strategies and devices to restore or enhance vision

DIRECTOR

Amy Y. Lin, MD
Associate Professor of Ophthalmology and Pathology
Assistant Dean for Curriculum
Director, Ophthalmic Pathology Laboratory

MEDICAL SCHOOL
Johns Hopkins University

RESIDENCY
Illinois Eye and Ear Infirmary at UIC (in Ophthalmology)
University of Illinois College of Medicine – Chicago (in Pathology)

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Ophthalmic Pathology)

CLINICAL INTERESTS
Eye pathology; Pathologic basis of ophthalmic disease

RESEARCH INTERESTS
Ocular oncology; Pathology education; Virtual microscopy for learning pathology; Team-based learning
The General Eye Clinic (GEC) is the heart of our Department and serves as the first point of contact for many of the Infirmary’s neediest patients, as well as a primary location for ophthalmic graduate medical education. Our dedicated residents and world-class faculty provide a wide spectrum of collaborative ophthalmic care ranging from managing common eye diseases and delivering routine eye exams to performing complex medical and surgical cases including cataract, glaucoma and retinal procedures. Special emphasis is placed on providing strong continuity of patient care. The GEC sees emergent referrals from outside providers from throughout the region and accepts “walk-in” patients with acute eye disease.
COMPREHENSIVE OPHTHALMOLOGY
FACULTY PRACTICE (COFP)

The Comprehensive Eye Clinic is a premiere ophthalmology practice run by Board Certified ophthalmologists. The clinic provides comprehensive eye exams, eyeglass prescriptions and contact lens fitting. More extensive services include: state-of-the-art cataract surgery, femtosecond laser assisted cataract surgery, premium intraocular lenses and the management of common and complex eye diseases. Same-day or next-day appointments are available.

MILES SQUARE FACULTY

Charles Kinnaird, OD
Clinical Assistant Professor of Ophthalmology
Chief, Optometry Section, Jesse Brown VA Medical Center

OPTOMETRY SCHOOL
Nova Southwestern University College of Optometry

RESIDENCY IN HOSPITAL BASED AND REHABILITATIVE OPTOMETRY
West Side Veterans Administration Medical Center, Chicago

CLINICAL VOLUNTEER FACULTY

Taylor Starnes, MD, PhD
Assistant Professor of Ophthalmology

MEDICAL SCHOOL
University of Wisconsin Madison

GRADUATE SCHOOL
University of Wisconsin Madison (PhD)

RESIDENCY IN OPHTHALMOLOGY
Illinois Eye and Ear Infirmary at UIC

CLINICAL FELLOWSHIP
Illinois Eye and Ear Infirmary at UIC (Cornea)

Clinical Interests
Routine and complex cataract surgery; Corneal transplantation; Ocular surface disease

Research Interests
Inflammatory ocular surface disease; Surgical techniques in cataract surgery; Surgical education

AFFILIATED & JOINT COURTESY

Daniel Alter, MD, PhD
Vandana Badlani, MD
Adrienne Berman, MD
Harit Bhatt, MD
Michael Blair, MD
Victoria Butcko, OD
Craig Foster, PhD
Ken-ichiro Fukuchi, MD, PhD
Richard A. Gemeinhart, PhD
Patricia Grant, PhD
John R. Hetling, PhD
David Hillman, MD

Jie Liang, PhD
Asrar B. Malik, PhD
Bellur S. Prabhakar, PhD
Daniel K. Roberts, OD, PhD
Steven Roth, MD, FARVO
Michael Shapiro, PhD
Veeral Sheth, MD
Matthew Thompson, MD
Lihheth Wu, MD
Kaori Yamada, PhD
Xiaojing Yang, PhD
Xincheng Yao, PhD
MILLENNIUM PARK EYE CENTER (MPEC)

The Millennium Park Eye Center (MPEC), conveniently located in the heart of downtown Chicago, is the city-center clinic of the Illinois Eye and Ear Infirmary. Ophthalmologists and Optometrists seeing patients at the MPEC are all members of the Department of Ophthalmology and Visual Sciences faculty. They diagnose and treat a wide range of eye conditions, from common eye problems to the most complex and rare ophthalmic issues. The Center offers the most advanced technology in vision and eye care available, utilizing state-of-the-art diagnostic imaging, surgical instrumentation, and laser vision correction services.

PHOTOGRAPHER: James Pharaon at iStock

IMAGE: Cloud Gate sculpture in Chicago’s Millennium Park
#9 in US Ophthalmology Departments for NIH Funding

*2022 data: The Blue Ridge Institute for Medical Research

Over $81 Million in funding

*Over FY22 & FY23

2nd-longest continually funded NEI Core Grant in the US

(Core Grant for Vision Research – first awarded in 1978)
VICE-CHAIR FOR RESEARCH

Deepak Shukla, PhD
Marion H. Schenk Esq. Professor in Ophthalmology for Research of the Aging Eye
Vice-Chair for Research
Professor of Ophthalmology, Microbiology and Immunology
Director, Ocular Virology Laboratory

GRADUATE SCHOOL
University of Illinois Chicago (PhD, Microbiology and Immunology)

RESEARCH FELLOWSHIP
Northwestern University (Virology and Immunology)

Research Interests
Ocular herpes virus infection mechanisms; Development of new therapeutic strategies against viral diseases of the aging eye; Herpes virus vaccine development

RESEARCH FACULTY

The Department of Ophthalmology and Visual Sciences has a history of dedicated commitment and record of prominent contributions to vision science research. The overarching goal for the research program is to address the significant challenges central to understanding, treating and preventing blinding eye disease. The program encompasses exemplary and pioneering research in the most critical areas of vision research, including investigations to understand the mechanisms of potentially blinding eye infections and diseases, the development of innovative techniques and instruments for diagnosing and monitoring the progression of eye diseases, the development of new therapeutics to control blinding eye diseases, genome-wide association studies, visual psychophysics, retinal processing, and visual neurophysiology. The Department maintains a tradition of excellence in collaborative and interdisciplinary research that has advanced knowledge in basic vision science and facilitated translation of findings to improve clinical care of patients with eye diseases.

RENEWAL: The Department's National Eye Institute Center Core Grant for Vision Research has been renewed. This is the second-longest, continually funded NEI core grant in the nation – first awarded in 1978.

RENEWAL: The Department's RPB Unrestricted Research Grant from Research to Prevent Blindness has been renewed.
Jin-Hong [Robert] Chang, PhD
Research Associate Professor of Ophthalmology
Director, Angiogenesis Research Laboratory
GRADUATE SCHOOL
University of Mississippi (PhD, Biochemistry)
RESEARCH FELLOWSHIP
University of Virginia (Microbiology)
Schepps Eye Research Institute, Harvard Medical School (Ophthalmology)
Research Interests
The role of VEGFR1, R2 and R3 activity in vitro and in vivo with the broader goal of characterizing the intrinsic factors of lymphatic cells that regulate corneal angiogenesis and lymphangiogenesis; Development of targeted therapies for corneal injury and disease

Michael A. Grassi, MD
Associate Professor of Ophthalmology
Director, Retinal Chemical Genomics Laboratory
MEDICAL SCHOOL
Northwestern University
RESIDENCY IN OPHTHALMOLOGY
University of Iowa
CLINICAL FELLOWSHIP
University of Iowa (Medical Retina)
RESEARCH FELLOWSHIP
University of Iowa (Molecular Ophthalmology)
Research Interests
Improving the treatment of retinal disease; Using cell-based models of retinal disease in genomic and chemical high throughput studies to identify key pathways and novel therapeutic targets

Joelle A. Hallak, MS, PhD
Adjunct Associate Professor of Ophthalmology
GRADUATE SCHOOL
University of Illinois Chicago (MS, PhD, Epidemiology)
Research Interests
Comparative effectiveness research; Statistical analysis of complex data; Computational models combining structured and unstructured data in order to develop personalized disease prediction scores

Kyu Yeon Han, PhD
Research Assistant Professor of Ophthalmology
Metalloproteinases Research Laboratory
GRADUATE SCHOOL
Suwon University, Korea (MS, Genetic Engineering) Kyung Hee University, Korea (PhD, Oncology)
RESEARCH FELLOWSHIP
University of Illinois College of Medicine – Chicago (Ophthalmology)
Research Interests
The mechanisms of membrane type I metalloproteinase in corneal neovascularization; Molecular and cellular aspects of extracellular vesicles in corneal angiogenesis and wound healing

Elmira Jalilian, MSc, PhD
Assistant Professor of Ophthalmology
GRADUATE SCHOOL
Newcastle University, UK (MSc in Medical Genetics)University College London (UCL), UK (PhD in Stem Cell and Developmental Biology)
VISITING SCHOLAR
Harvard Medical School (Stem Cell Bioengineering)
POSTDOCTORAL RESEARCH FELLOWSHIP
University of Michigan (Developmental Neurology)
Research Interests
Therapeutics for corneal nerve regeneration, including novel stem cell and tissue engineering approaches
Andrius Kazlauskas, PhD  
Professor of Ophthalmology and Physiology and Biophysics  

GRADUATE SCHOOL  
Cleveland State University (PhD, Chemistry)  
Fred Hutchinson Cancer Research Center, Seattle, WA (Postdoctoral Research Associate, Cancer Biology)  

Research Interests  
Improving current therapeutic options for patients with diabetic retinopathy; Developing new approaches to prevent diabetic retinopathy

J. Jason McAnany, PhD  
Professor of Ophthalmology  
Director, Clinical Psychophysics and Electrophysiology Laboratory  

GRADUATE SCHOOL  
University of Illinois Chicago (MA, PhD, Behavioral Neuroscience)  

RESEARCH FELLOWSHIP  
University of Illinois College of Medicine – Chicago (Psychophysics and Electrophysiology)  

Research Interests  
Electroretinography; Psychophysics; Pupillometry; Retinal imaging; Acquired and inherited retinal disease

Joy Sarkar, PhD  
Research Assistant Professor of Ophthalmology  
Corneal Neurobiology and Regenerative Medicine Laboratory  
Associate Director, Cell and Molecular Biology Core Module  

GRADUATE SCHOOL  
University of Mumbai (MS, Microbiology)  
H.N. Reliance Foundation Hospital Research Center (PhD, Biochemistry)  

RESEARCH FELLOWSHIPS  
Northwestern University (Cellular and Molecular Biology)  
Tata Institute of Fundamental Research TIFR (Cellular and Molecular Biology)  

Research Interests  
Cellular & molecular aspects of Dry Eye disease; Corneal nerve regeneration after injury; Angiogenesis, neurogenesis & regenerative medicine; Innate immune regulatory mechanisms in eye disease

Anna L. Vlasits, PhD  
Assistant Professor of Ophthalmology  

GRADUATE SCHOOL  
University of California Berkeley (PhD, Neuroscience)  

RESEARCH FELLOWSHIPS  
University of Tübingen, Germany (Ophthalmology and Neuroscience)  
Northwestern University (Neurobiology)  

Research Interests  
Neural function in healthy and diseased retina using advanced microscopy methods

Tejabhiram Yadavalli, PhD  
Research Assistant Professor of Ophthalmology  
Ocular Virology Lab  

GRADUATE SCHOOL  
SRM University (PhD, Nanotechnology)  

RESEARCH FELLOWSHIP  
University of Illinois College of Medicine – Chicago (Ophthalmology)  

Research Interests  
Electrophysiology; Pupillometry; Psychophysics; OCT image processing

Jason Changbum Park, PhD  
Research Assistant Professor of Ophthalmology  
Clinical Psychophysics and Electrophysiology Laboratory  

GRADUATE SCHOOL  
Columbia University (Psychology)  

RESEARCH FELLOWSHIP  
University of Illinois College of Medicine – Chicago (Ophthalmology)  

Research Interests  
Ocular disease; Nano materials science for development of advanced drug delivery systems
VISITING RESEARCH FACULTY

Xincheng Yao, PhD
Richard & Loan Hill Professor of Biomedical Engineering and Ophthalmology
Director, Biomedical Optics and Functional Imaging Laboratory

Graduate School
Harbin Institute of Technology (MEng, Optical Instrumentation)
Institute of Physics, Chinese Academy of Sciences (PhD, Optics)

Research Fellowship
Los Alamos National Laboratory (Biomedical Optics)

Research Interests
Biomedical optics instrumentation; Ultra-wide field fundus photography; Functional optical coherence tomography (OCT); OCT angiography; Super-resolution ophthalmoscopy; Machine learning based image classification

Darvin Yi, PhD
Assistant Professor of Ophthalmology and Bioengineering (by courtesy)
Co-Executive Director, Artificial Intelligence in Ophthalmology (AI-O) Center
Director, Medical Computer Vision (MCV) Group

Graduate School
Stanford University (PhD, Biomedical Informatics)

Research Interests
Biomedical Computer Vision for Ophthalmology/Radiology/Pathology: Semantic Segmentation, Pathology Detection, Explainable AI, Racial Equity, AI Education

VISITING RESEARCH FACULTY

Seungwon An, PhD
Visiting Research Assistant Professor

Michael T. Flavin, PhD
Visiting Research Professor

Paul Knepper, MD, PhD, FARVO
Visiting Professor

Qiang (Jack) Zhou, MD, PhD
Visiting Research Assistant Professor
The UIC Artificial Intelligence in Ophthalmology (Ai-O) is a center of excellence for Artificial Intelligence research, theory, applications, and education in ophthalmology. Below are current and recent projects from the Ai-O Center.

Validating the Generalizability of Ophthalmic AI Models on Real-World Clinical Data

Authors: Homa Rashidi, R.V. Paul Chan, Yannek I. Leiderman, Thasarat Sutabutr Vajaranant, Darvin Yi

This study investigated the performance of deep learning models trained on the union of commonly used public fundus data to real-world data (RWD) for glaucoma classification and Optic Disc (OD) segmentation tasks. Results showed that models trained on public data performed well on public data but had decreased accuracy when tested on RWD. This performance degradation was higher for the glaucoma classification than the OD segmentation task. This suggests that commonly used public fundus images have a limited ability to maintain performance on RWD, indicating public data is not sufficient for deployment in a clinical setting.

Method pipeline flowchart. (A) Optic Disc (OD) segmentation pipeline. (B) Glaucoma classification pipeline. (C) Fundus image cropping pipeline.

Continued on next page...
Comparison of Segment Anything Model and Mediapipe for Periorbital and Craniofacial Mapping

Authors: Georgie Nahass, Ann Q. Tran, Chad Purnell, Darvin Yi

Facial mapping is the process of indexing anatomic structures on the face and eyes to facilitate the analysis of the relationships of key structures. Accurate numeric representation of the face and eyes allows for improved postoperative assessment in oculoplastic and plastic surgeries, objective assessment of treatment outcomes, as well as facilitates novel research goals.

In this study the Ai-O team is assessing the capabilities of the Segment Anything Model (SAM) from Meta and the Mediapipe FaceMesh and Iris models from Google in their ability to accurately identify exterior ocular and facial anatomy. This successful identification of this anatomy (determined by comparison to manually annotated images) can be used to facilitate the measurement of 37 curvilinear measurements of the face including superior and inferior scleral show, vertical dystopia, brow heights at various points, canthal tilt, and many more. The team is assessing patients with normal eyes, as well as patients suffering from a range of diseases that cause ocular pathology.

Subtle Diabetic Retinopathy

Authors: Simon Ma, Yanliang Li, Andrius Kazlauskas, Darvin Yi

The intent of the study is to search for evidence of a diabetic retinopathy (DR) “protection period” unique to patients that have diabetes mellitus (DM), but have not yet developed DR. The Ai-O Center is comparing ophthalmic images of the retina from protected patients with two other types of patients who are not protected: patients who do not have DM (and therefore the protective system has not been engaged) and patients who have DM and have developed DR (the protective system has failed).

The results of this project (an AI-based system to evaluate the status of endogenous protection from DR) will be of enormous benefit to patients at risk for developing DR. For instance, knowing that protection from DR is a warning is likely to powerfully motivate an individual to embrace available preventative approaches (diet and lifestyle).
**Uveal Melanoma**

Authors: Simon Ma, Sabrina Iddir, John Michael Bryan, Michael Heiferman, Darvin Yi

Uveal melanoma (UM) is the most common intraocular malignancy in adults, with a high rate of metastasis and a poor prognosis. The accurate diagnosis of small UM is challenging due to similar clinical characteristics to benign choroidal nevi.

This study aims to assess a machine learning (ML) algorithm using multimodal imaging (ultra-widefield fundus and B-scan ultrasonography) to accurately identify risk factors for uveal melanoma (UM) and aid in the diagnosis of melanocytic choroidal tumors. Convolutional neural networks (CNNs) provide doctors helpful tools to assist with Uveal Melanoma (UM) diagnosis and progress our understanding of what is possible to extract from various imaging techniques.

### Table: Parameter Categories

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Categories</th>
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<tr>
<td>Image Modality</td>
<td>US</td>
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<tr>
<td>Original Image</td>
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<td>Ground Truth</td>
<td>Uveal Melanoma</td>
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<td>Prediction</td>
<td>Uveal Melanoma</td>
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<td>Confidence Score</td>
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</tbody>
</table>

**Surgical guidance for cataract and vitreoretinal procedures**

Authors: Rogerio Nespolo, Emily Cole, Nita Valikodath, Daniel Wang, Alexis Warren, Darvin Yi, Yannek Leiderman

With the help of neural networks and computer vision tools to track and segment instruments and tissues with real-time performance, the Ai-O team is investigating how surgeons can benefit from guidance tools such as rhexis guidance, image enhancement in the pupil area during cataract surgery, and collision avoidance between instruments and the retina.

Image enhancement and turbulence detection during phacoemulsification via pupil tracking (top); Tracking and segmentation of instruments and tissues for vitreoretinal procedures (middle & bottom figures).
The Department of Ophthalmology and Visual Sciences (DOVS) at the Illinois Eye and Ear Infirmary works closely with the Institute for Healthcare Delivery Design (IHDD) at UIC. Established in 2017, the IHDD employs the methods of human-centered design, public health, and delivery science in collaboration with stakeholders to improve the quality, safety, and value of care.

Health equity is a fundamental principle that underpins the UIC Department of Ophthalmology and Visual Science's pursuit to ensure that every individual, regardless of their background, socioeconomic status, or demographic characteristics, can attain their highest level of health. Through a partnership with UI Health’s Health Equity Pilot Program (HEPP), the Institute for Healthcare Delivery Design (IHDD), and the Department of Family and Community Medicine (FM), the Department has devised an AI-driven diabetic retinopathy (DR) screening program with the goal of reducing health inequities.

“Diabetic retinopathy is the most common cause of preventable vision loss in the U.S.,” explains Angelica Scanzera, OD, MPH, one of the project leads, “and the prevalence of diabetes has been found to be higher in the population served within our health system compared to city-wide estimates.”

The rate of diabetes in Chicago is approximately 10%, but in areas surrounding UIC, the rate ranges from 20-37%, with a greater prevalence of diabetic retinopathy in Latinx and Black individuals over age 40.

Though early detection and treatment can prevent visual impairment by as much as 90%, fewer than half of Americans with diabetes receive a recommended yearly screening for eye disease. Using data from the UIC Department of Family and Community Medicine (FM), the team found that 56% of UIC FM patients with diabetes were overdue for diabetic retinopathy screening. “While we offer eye exams for patients with diabetes, we continue to work toward solutions for patients who have typically been hard to reach. One example is this artificial intelligence-based screening for diabetic retinopathy,” says Dr. Scanzera.

Cameron Beversluis, MDes, a project lead from UIC’s IHDD, agrees. “Many patients with diabetes at UI Health don’t get the eye care they need to prevent vision loss. [Our] approach to care delivery seeks to overcome this challenge by bringing AI-driven DR screening technology into primary care and Endocrinology settings, where many patients with diabetes routinely go for care.”

Beginning in late 2022, the project team began integrating EyeArt® AI Eye Screening System (Eyenuk, Inc.) into patient care in the Department of Family & Community Medicine. The artificial intelligence system has allowed the team to detect diabetic retinopathy earlier in patients who do not normally visit an eye specialist and proceed to get them in for evaluation and treatment. The project team utilized the practice of human-centered design (HCD), a problem-solving approach that seeks to understand real-world contexts; identify and engage stakeholders throughout the process; and rapidly generate, evaluate, and iterate on potential solutions. Observations of and interviews with stakeholders in DOVS and FM led to needs identification, which in turn informed solution iteration. The project resulted in the development of clinic screening workflows, patient and provider education materials, and scripts and protocols for clinical staff to carry out the screening service and support patient follow-up visits in Ophthalmology for comprehensive treatment and care. This project is ongoing and is expanding to the Diabetes and Endocrinology Center at UI Health.

“This intervention...reflects the kind of human-centered approach to care delivery that can help UI Health meet the needs of its patient population and advance health equity.”

Cameron Beversluis, MDes
Senior Design Strategist, IHDD

“During these regular visits, patients can be screened for DR, introduced to the importance of eye care, and scheduled directly into Ophthalmology for comprehensive exams and treatment,” Beversluis explains. “This intervention, while still in its early stages, reflects the kind of human-centered approach to care delivery that can help UI Health meet the needs of its patient population and advance health equity.”

“We’ve learned that a multidisciplinary approach, working with colleagues throughout the health system, during the design and implementation process is critical,” Dr. Scanzera adds, “and we look forward to a continued partnership while we modify and expand this program to meet the needs of our patients.”
The Department of Ophthalmology and Visual Sciences at Illinois Eye and Ear has been a leader in ophthalmic innovation and discovery. As part of its continuing dedication to advancing the field of ophthalmology, the Department works in partnership with the University of Illinois at Chicago Innovation Center. Labs at the Innovation Center provide interdisciplinary teams with a dedicated environment for project research and development. Along with the institutional support received through the Innovation Center, the Department’s projects are generously supported by philanthropic efforts and nonprofit organizations.

ORBIT Lab

The Ophthalmic Research in Bioengineering, Innovation, and Technology (ORBIT) Lab is an interdisciplinary cohort of faculty and students specializing in the research and development of ophthalmic devices.

The ORBIT Lab is currently working on a pioneering approach to addressing eyelid dysfunction, a prevalent issue faced by patients with facial paralysis.

Mechanical eyelid dysfunction secondary to facial paralysis is a condition that causes issues with eyelid movement. Since the eyelid protects the cornea of the eye, this condition often leads to severe eye dryness, corneal scarring, and, in some cases, even infections or vision loss. By enlisting researchers such as Pete Setabutr, MD, Michael Sun, MD, PhD, and other collaborators, ORBIT Lab has fostered ongoing research efforts in understanding and tackling the challenges associated with eyelid dysfunction. Their exploration and refinement of a device designed to reanimate blinking aims to address these challenges.

Thanks to the Innovation Center and related philanthropic efforts, the ORBIT Lab team is “exploring pioneering solutions, such as the dynamic blink reanimation device, that hold tremendous promise in addressing eyelid dysfunction and its devastating consequences,” explains Dr. Setabutr. “We’re making remarkable strides in overcoming the challenges faced by patients with facial paralysis, ensuring improved eye health, and safeguarding vision for those in need.”

The ORBIT Lab team looks forward to continued success as they strive for effective and life-changing solutions for patients.
OPHTHALMIC CLINICAL TRIALS AND TRANSLATIONAL CENTER

The Ophthalmic Clinical Trials and Translational Center (OCTTC), under the direction of Bhavana Kolli, MHA, provides a model for dedicated clinical trial support services, including personalized clinical trial patient care, certified ophthalmic lanes with cutting-edge equipment, and a platform for clinicians to launch new trials and studies. The main objective of the OCTTC is to streamline research operations and enhance the implementation of clinical trials in order to provide promising new treatments to patients who have been diagnosed with the most difficult and complex ophthalmic diseases.

The OCTTC employs six full-time clinical research coordinators (CRC), with at least one CRC assigned to each trial or research study. The CRC is responsible for running day-to-day research services including budget and contract negotiations; Institutional Review Board (IRB) preparation and submission; coverage analysis; patient recruitment strategies, examinations, and data collection; intellectual property and commercialization consulting; and regulatory and oversight support in human studies.

From the start of a clinical trial to final closeout, the OCTTC provides professional-level support to investigators. This is especially critical for investigator-initiated studies. New treatments and medical devices are first developed in the laboratory and in clinics before obtaining sponsorship. The OCTTC provides the framework and personnel to support these initial developments. Furthermore, with the UI Hospital & Health Sciences System transition to the Epic EHR platform, the CRCs provide daily support by implementing new research workflows and proposing enhancements to existing processes and Epic integration.

This enhanced research coordination model allows the OCTTC to provide patients with a higher quality experience, while maintaining attention to detail and compliance, which are critical to favorable study results. Since its inception in 2015, the OCTTC has been successful in providing support to hundreds of trials and investigator-initiated research studies. As of July 2023, the OCTTC has already provided support for over 56 active clinical trials and over 48 active investigator-initiated research studies.

With its high level of dedicated services, the OCTTC provides an innovative environment where clinical and translational scientists are fully supported in their quest to provide the very best treatments to patients who are suffering from the most serious ophthalmic diseases.

| active research studies | 48+ |
| active clinical trials | 56+ |
# CLINICAL INVESTIGATIONS AND TRIALS

**July 1, 2021 - June 30, 2023**

## CONTACT LENS

<table>
<thead>
<tr>
<th>Contact Lens Investigator</th>
<th>Clinical Trial Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timothy McMahon, OD, FAAO</td>
<td>Clinical Trial to Determine Whether Senofilcon A Lenses Provide Relief of Symptoms and Signs in Patients with Moderate to Severe Dry Eye Disease</td>
</tr>
</tbody>
</table>

## CORNEA

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Clinical Trial Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maria Soledad Cortina, MD</td>
<td>Efficacy and Pharmacokinetics of 3 Doses of REC 0/0559 Eye Drops for the Treatment of Stage 2 (Moderate) and 3 (Severe) Neurotrophic Keratitis in Adult Patients</td>
</tr>
<tr>
<td>Jose de la Cruz, MD</td>
<td>A Phase I/II Prospective, Randomized, Multicenter, Double-Masked, Double-Masked, Vehicle-Controlled Clinical Trial to Evaluate the Safety and Efficacy of Corneal Collagen Cross-Linking of Keratoprote*</td>
</tr>
<tr>
<td>Ali Djalilian, MD</td>
<td>A Prospective Limbal Stem Cell Deficiency Natural History Study to Develop Optimized Endpoints</td>
</tr>
</tbody>
</table>

## GLAUCOMA

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Clinical Trial Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmad Aref, MD, MBA</td>
<td>A Comparison of Bimatoprost SR to Selective Laser Trabeculoplasty in Patients with Open-angle Glaucoma or Ocular Hypertension</td>
</tr>
<tr>
<td>Ahmad Aref, MD, MBA</td>
<td>Prospective Multicenter Non-Interventional Study of Canaloplasty for Glaucoma-iTrackTM Global Data Registry</td>
</tr>
<tr>
<td>Ahmad Aref, MD, MBA</td>
<td>An Extension Trial to Evaluate the Long-term Safety and Efficacy of Bimatoprost SR in Patients with Open Angle Glaucoma or Ocular Hypertension</td>
</tr>
</tbody>
</table>

## PEDIATRIC

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Clinical Trial Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mehmet Cem Mocan, MD</td>
<td>Investigation of a Virtual Reality VR device for Monitoring of Strabismus Protocol Number CPR 01003</td>
</tr>
<tr>
<td>Mehmet Cem Mocan, MD</td>
<td>Pediatric Eye Disease Investigator Group</td>
</tr>
<tr>
<td>Mehmet Cem Mocan, MD</td>
<td>Pediatric Cataract Surgery Outcomes Registry (C02)</td>
</tr>
</tbody>
</table>

## RETINA

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Clinical Trial Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. V. Paul Chan, MD, MSc, MBA, FACS</td>
<td>CTA Randomized Controlled Multi-Center Study to Assess the Efficacy Safety and Tolerability of Intravitreal Aflibercept Compared to Laser Photocoagulation in Patients with Retinopathy</td>
</tr>
<tr>
<td>Felix Chau, MD</td>
<td>RAINBOW Extension Study - An Extension Study to Evaluate the Long Term Efficacy and Safety of Ranibizumab Compared with Laser Therapy for the Treatment of Infants Born Prematurely with Retinopathy of Prematurity</td>
</tr>
<tr>
<td>Robert Hyde, MD, PhD</td>
<td>A Phase 1/2 Study to Assess the Safety and Efficacy of OCU400 for Retinitis Pigmentosa Associated with NR2E3 and RHO Mutations</td>
</tr>
<tr>
<td>Robert Hyde, MD, PhD</td>
<td>Evaluation of an Electroretinogram Sensor</td>
</tr>
<tr>
<td>Yannek I. Leiderman, MD, PhD</td>
<td>A Randomized Partially Masked Controlled Phase 2b 3 Clinical Study to Evaluate the Efficacy and Safety of RGX314 Gene Therapy in Participants with nAMD ATMOSPHERE RGX 314 2104</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Diabetic Retinopathy Clinical Research Network - Protocol J</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Genes In Diabetic Retinopathy Project</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Peripheral DR Lesions on Ultrawide-field Fundus Images and Risk of Diabetic Retinopathy Worsening Over Time - Diabetic Retinopathy Clinical Research Network</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Multicenter Double-Masked Randomized Dose-Ranging Trial to Evaluate the Efficacy and Safety of Conbercept Intravitreal Injection in Subjects with Neovascular Age-Related Macular Degeneration</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Phase II Multicenter Randomized Single-Masked Sham-Controlled Study to Assess Safety Tolerability and Efficacy of Intravitreal Injections of FHTR2163 in Patients with Geographic Atrophy</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Multicenter Open-Label Extension Study to Evaluate the Long-Term Safety and Tolerability of Tolerability of Intravitreal Injections of FHTR2163 In Patients With Geographic Atrophy Secondary To Age-Related Macular</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>AMD Ryan Initiative Study (ARIS) - Longitudinal Study of Early AMD and Reticular Pseudodrusen</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>The Guard Trial: A Multicenter, Randomized, Controlled, Prospective, Adaptive Phase 3 Clinical Trial of Repeated Intravitreal Injections of ADX-2191 Versus Standard-of-Care for the Prevention of Proliferative Vitreoretinopathy</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Phase 2 Multicenter, Randomized, Double-Masked, Sham-Controlled Study of the Safety and Efficacy of Intravitreal Injections of NGM621 in Subjects with Geographic Atrophy (GA) Secondary to Age-Related Macular Degeneration (AMD)</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Randomized Clinical Trial Evaluating Fenofibrate for Prevention of Diabetic Retinopathy Worsening (Protocol AF)</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Randomized Trial Comparing Immediate versus Deferred Surgery for Symptomatic Epiretinal Membranes (Protocol AM)</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Metformin Administration for the Minimization of Geographic Atrophy Progression in Patients with Dry Age-Related Macular Degeneration</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Prospective Multicenter Clinical Study of the Implantable Miniature Telescope Model SING in Patients with Central Vision Impairment Associated with End Stage Age Related Macular Degeneration AMD</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Prospective Observational Post-marketing Surveillance Study to Monitor the Safety of the Port Delivery System with Ranibizumab in Patients with Neovascular Age Related Macular Degeneration VILLA</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Phase 2/3, Randomized, Double-masked, Multicenter, Dose-ranging, Sham-controlled Clinical Trial to Evaluate Intravitreal JNJ-81201887 (AAVCAGsCD59) Compared to Sham Procedure for the Treatment of Geographic Atrophy (GA) Secondary to Age-related Macular Degeneration (AMD)</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Multicenter Prospective Observational Study of The Progression of Intermediate Age-Related Macular Degeneration (GE43220)</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Long-Term Efficacy and Safety of Intravitreal Aflibercept Injections for the Treatment of Diabetic Retinopathy for Subjects who Completed the 2-Year PANORAMA Trial VOYAGE</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>NAC Attack A Phase 3 Multicenter Randomized Parallel Double Masked Placebo Controlled Study Evaluating the Efficacy and Safety of Oral N Acetylcysteine in Patients with Retinitis Pigmentosa</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Prominent-Eye Ancillary Study: Diabetic Retinopathy (Protocol AD)</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>A Phase 2, Randomized Double- Masked, Placebo-Controlled Clinical Study to Evaluate the Safety, Efficacy, and Pharmacokinetics of Subcutaneous Injections of Elamipretide in Subjects with Age-Related Macular Degeneration with Geographic Atrophy</td>
</tr>
<tr>
<td>Jennifer Lim, MD</td>
<td>Intravitreous Anti-VEGF Treatment for Prevention of Vision Threatening Diabetic Retinopathy in Eyes at High Risk</td>
</tr>
<tr>
<td>Daniel Maidana, MD, PhD</td>
<td>A Randomized Trial of Low-dose Bevacizumab versus Laser for Type 1 Retinopathy of Prematurity ROP3</td>
</tr>
<tr>
<td>Daniel Maidana, MD, PhD</td>
<td>Bevacizumab Treatment for Posterior Type 1 Retinopathy of Prematurity (ROP4)</td>
</tr>
<tr>
<td>William Mieler, MD</td>
<td>A Phase 2 trial of AU 011 via Suprachoroidal Administration with a Dose-Escalation Phase Open-label Ascending Single and Repeat Dose and a Randomized Masked Dose-Expansion Phase</td>
</tr>
</tbody>
</table>

**UVEITIS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann-Marie Lobo, MD, MS</td>
<td>Zoster Eye Disease Study (ZEDS)</td>
</tr>
</tbody>
</table>

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## FEDERALLY SPONSORED GRANTS

<table>
<thead>
<tr>
<th>INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>Histatin Peptides as a Treatment for Ocular Surface Injury and Prevention of Corneal Neo-Vascularization</td>
<td>US Department of Defense</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>Novel Treatment for Ocular Surface Diseases</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>I- Corps: Development of Wound Healing Agent</td>
<td>US National Science Foundation</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Dhara Shah FY 23</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Sang Min Lee FY 23</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Kyung No Son FY 23</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Dhara Shah FY 22</td>
<td>US Department of Veterans Affairs</td>
</tr>
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<td>US Department of Veterans Affairs</td>
</tr>
<tr>
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<td>VA IPA for Kyung No Son FY 22</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Dhara Shah FY 21</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Sang Min Lee FY 21</td>
<td>US Department of Veterans Affairs</td>
</tr>
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<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Kyung No Son FY 21</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>VA IPA for Arun Balasubramaniam FY 21</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Alexander Agelidis (Shukla)</td>
<td>Heparanase in Herpetic Keratitis</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Dingcai Cao, PhD</td>
<td>Melanopsin Activation and Human Visual Electrophysiological Responses</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Dingcai Cao, PhD</td>
<td>Second Generation E Cigarette Cue Reactivity</td>
<td>National Institute on Drug Abuse *</td>
</tr>
<tr>
<td>Dingcai Cao, PhD</td>
<td>Alcohol Stimulation and Sedation in Binge Drinkers</td>
<td>National Institute of Alcohol Abuse and Alcoholism *</td>
</tr>
<tr>
<td>R. V. Paul Chan, MD, MSc, MBA, FACS</td>
<td>Clinical and Genetic Analysis of Retinopathy of Prematurity</td>
<td>National Eye Institute *</td>
</tr>
<tr>
<td>R. V. Paul Chan, MD, MSc, MBA, FACS and Xincheng Yao, PhD</td>
<td>Nonmydriatic Ultra Widefield Fundus Photography Employing Trans pars planar Illumination</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Jin-Hong Robert Chang, PhD</td>
<td>VA IPA for Dr. Kai Guo FY 22</td>
<td>US Department of Veterans Affairs</td>
</tr>
<tr>
<td>Ali Djallilian, MD</td>
<td>Mechanisms of Conneal Epithelial Disease and Repair</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Ali Djallilian, MD</td>
<td>Mechanisms of Conneal Epithelial Disease and Repair (R01 Supplement)</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Ali Djallilian, MD</td>
<td>Phase I II Multicenter Randomized Controlled Clinical Trial of Mesenchymal Stem Cell Therapy for Severe Ocular Surface Chemical Injuries</td>
<td>US Department of Defense</td>
</tr>
<tr>
<td>Ali Djallilian, MD</td>
<td>Phase I Study of Mesenchymal Stromal Cell Secretome for Promoting Corneal Regeneration</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Michael Grassi, MD</td>
<td>Role of Leukocyte-Endothelial Adhesion in Diabetic Retinopathy</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Kyuyeon Han, PhD</td>
<td>Identification of a New Role of Membrane-type 1 Matrix Metalloproteinases in Conneal Neovascularization</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Kyuyeon Han, PhD</td>
<td>COVID19 - Development of MMP14-laden Exosomes as a Novel Anti-SARS-CoV-2 Therapy</td>
<td>National Institute of Allergy &amp; Infectious Diseases</td>
</tr>
<tr>
<td>Robert Hyde, MD, PhD</td>
<td>Inner Retinal Dysfunction in Retinitis Pigmentosa</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Evgenia Ivakhnitskaia</td>
<td>Correlations of Structure and Function in Regenerating Conneal Nerves</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Sandeep Jain, MD</td>
<td>Immunotherapy for Ocular Surface Diseases</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Sandeep Jain, MD</td>
<td>The Chicago Chronic GVHD Meeting</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Sandeep Jain, MD</td>
<td>Innate Immune Aspects of Ocular Surface Disease</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Elmira Jalilian, PhD</td>
<td>Mesenchymal Stem Cells and their Secreted Factors “Exosomes” for Treatment of Diabetic Conneal Neuropathy</td>
<td>National Center for Advancing Translational Sciences</td>
</tr>
<tr>
<td>Charlotte Joslin, OD, PhD</td>
<td>Study of Latinos (SOL) Ojos</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Charlotte Joslin, OD, PhD</td>
<td>Exploring Factors Related to Racial Disparities in Ovarian Cancer Incidence and Survival: the OCWAA Consortium</td>
<td>National Institutes of Health (National Cancer Institute) *</td>
</tr>
<tr>
<td>Andrius Kazlauskas, PhD</td>
<td>Anti-VEGF-mediated barrier closure</td>
<td>National Eye Institute</td>
</tr>
</tbody>
</table>

* Subcontracts
* Figures are reported based on total amount of the federal award including approved cost
<table>
<thead>
<tr>
<th>INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lulia Koujah</td>
<td>The Role of Heparanase and Beta-catenin in Ocular Herpes Infection</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Jennifer Lim, MD and</td>
<td>Differential Artery-Vein Analysis in OCT Angiography for Objective Classification of</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Xincheng Yao, PhD</td>
<td>Diabetic Retinopathy</td>
<td></td>
</tr>
<tr>
<td>Daniel Maidana, MD, PhD</td>
<td>Defining the Role of Retinal Microglia and Infiltrating Monocytes on Photoreceptor Cell Death in Retinal Detachment</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>J. Jason McAnany, PhD</td>
<td>Mechanisms of Early Functional Loss in Diabetic Eye Disease</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>J. Jason McAnany, PhD</td>
<td>Mechanisms of Early Functional Loss in Diabetic Eye Disease (R01 Supplement)</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>J. Jason McAnany, PhD</td>
<td>Mechanisms of Vision Loss in X-Linked Juvenile Retinoschisis</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>William Mieler, MD</td>
<td>Dynamic Tracer Kinetic Model to Detect Preclinical Diabetic Retinopathy (DR)</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Mark Rosenblatt, MD, PhD, MBA</td>
<td>UIC K12 Independent Clinical Vision Scientist Development Program</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Mark Rosenblatt, MD, PhD, MBA</td>
<td>Mechanisms of Corneal Nerve Repair</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Mark Rosenblatt, MD, PhD, MBA</td>
<td>Medical Scientist Training Program</td>
<td>National Institute of General Medical Sciences</td>
</tr>
<tr>
<td>Hajirah Saeed, MD</td>
<td>Identification of Genetic Polymorphisms in Stevens Johnson Syndrome and Toxic Epidermal Necrosis</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Deepak Shukla, PhD</td>
<td>P30 Core Grant for Vision Research</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Deepak Shukla, PhD</td>
<td>Allievation of ER Stress as a Translational Strategy to Curb Ocular Viral Infections</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Deepak Shukla, PhD</td>
<td>A New Molecular Therapy Against Ocular Herpes</td>
<td>National Eye Institute</td>
</tr>
<tr>
<td>Deepak Shukla, PhD</td>
<td>HSV 1 Encoded MicroRNAs in the Pathogenesis and Treatment of Ocular Herpes</td>
<td>National Eye Institute</td>
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<td>Deepak Shukla, PhD</td>
<td>A Small Molecule Inhibitor Of HSV Genital Infections</td>
<td>National Institute of Allergy and Infectious Diseases</td>
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<td>Deepak Shukla, PhD</td>
<td>HPSE in Ocular Herpes Infection</td>
<td>National Eye Institute</td>
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<td>Deepak Shukla, PhD</td>
<td>Innate and Adaptive Responses to HSV-2 Conjugated ZOTEN</td>
<td>National Institute of Allergy and Infectious Diseases</td>
</tr>
</tbody>
</table>

**FOUNDATION SPONSORED RESEARCH**

<table>
<thead>
<tr>
<th>INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinay Aakalu, MD, MPH</td>
<td>Corneal Wound Healing Eye Drops</td>
<td>Chicago Biomedical Consortium</td>
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<tr>
<td>Luis A. Acaba-Berrocal, MD</td>
<td>Novel Visible-light Curable Natural Hydrogel for the Efficient Closure of Sclerotomy Wounds</td>
<td>VitreoRetinal Surgery Foundation</td>
</tr>
<tr>
<td>Tala Al-Khaled, MD</td>
<td>“Uveitis App as a Patient Education and Self-Care Tool” – A Uveitis Smartphone Application</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
<td>Andrea Arteaga, MD</td>
<td>Biofilm in Boston type 1 keratoprosthesis: Effect on Ocular Surface and Antibiotic Susceptibility</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
<td>Dara Baker, MD</td>
<td>3D Visualization of the Human Iris: A Key to Understanding Disease Pathogenesis</td>
<td>Illinois Society for the Prevention of Blindness</td>
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<tr>
<td>Ilina Bhattacharya,</td>
<td>Understanding Role of OPTN in HSV-1 Associated Ocular Etiologies</td>
<td>Illinois Society for the Prevention of Blindness</td>
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<td>R. V. Paul Chan, MD, MSc, MBA, FACS</td>
<td>RPB Unrestricted Research Grant</td>
<td>Research To Prevent Blindness</td>
</tr>
<tr>
<td>Arthur Chang, PhD</td>
<td>Risk Factors for Subsequent Retinal Detachment After Open Globe Injury: A Case-Control Study</td>
<td>VitreoRetinal Surgery Foundation</td>
</tr>
<tr>
<td>Ali Djalilian, MD</td>
<td>Exosomes for Ocular Regenerative Medicine</td>
<td>Research To Prevent Blindness</td>
</tr>
<tr>
<td>Ali Djalilian, MD</td>
<td>Stimulating the Normal Copy of PAX6</td>
<td>Vision for Tomorrow Foundation</td>
</tr>
<tr>
<td>Victor Guaiquil, PhD</td>
<td>Role of Axon Guidance Proteins in the Injured Cornea</td>
<td>Eversight</td>
</tr>
<tr>
<td>Chunyu Guo, PhD</td>
<td>Comparison of detecting power and artifacts between different OCTA scan sizes in AMD and DR</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
<td>Joelle Hallak, PhD</td>
<td>A Novel Approach to Personalized Prediction of Progression of Age-Related Macular Degeneration</td>
<td>BrightFocus Foundation (American Health Assistance Foundation)</td>
</tr>
</tbody>
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* Subcontracts
* Figures are reported based on total amount of the federal award including approved cost
<table>
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<th>FUNDING SOURCE</th>
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<td>A Novel Approach to Personalized Prediction of Progression of Age-Related</td>
<td>Carl Zeiss Meditec Inc</td>
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<tr>
<td></td>
<td>Macular Degeneration</td>
<td></td>
</tr>
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<td>Kyuyeon Han, PhD</td>
<td>Identification and Development of Small Molecule Inhibitors Against the</td>
<td>Eversight</td>
</tr>
<tr>
<td></td>
<td>Corneal Neovascularization via MMP14</td>
<td></td>
</tr>
<tr>
<td>Robert Hyde, MD, PhD</td>
<td>Functional Remodeling of the Inner Retina in Inherited Retinal Degeneration</td>
<td>Research To Prevent Blindness</td>
</tr>
<tr>
<td>Robert Hyde, MD, PhD</td>
<td>Multi-wavelength Perimetry in Patients with Rod and Cone-pathway Dysfunction</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
<td>Andrius Kazlauskas, PhD</td>
<td>Hyperglycemia-induced Mitochondrial Adaptation</td>
<td>Retina Research Foundation</td>
</tr>
<tr>
<td>Nikhila Khandwala, MD</td>
<td>Analysis of Clinical and Genotypic Presentation of Axenfeld-Rieger Syndrome</td>
<td>Illinois Society for the Prevention of Blindness</td>
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<tr>
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<td>at LV Prasad Eye Institute</td>
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<tr>
<td>Yanliang Li, MD, PhD</td>
<td>Investigate the Endogenous System that Protects the Retinal Vasculature from</td>
<td>Illinois Society for the Prevention of Blindness</td>
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<tr>
<td></td>
<td>DM-Driven Damage</td>
<td></td>
</tr>
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<td>Daniel Maidana, MD, PhD</td>
<td>Role of Retinal Microglia and Infiltrating Monocytes in Retinal Detachment</td>
<td>Research To Prevent Blindness</td>
</tr>
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<td>J. Jason McAnany, PhD</td>
<td>Uncovering the Genetic Basis for A Cryptic Pan Sensory Disorder</td>
<td>Chicago Biomedical Consortium</td>
</tr>
<tr>
<td>Rajvi Mehta, MD</td>
<td>Effect of Oral Curcumin Supplementation on Choriocapillaris and Drusen</td>
<td>VitreoRetinal Surgery Foundation</td>
</tr>
<tr>
<td></td>
<td>Characteristics Measured by multimodal Retinal Imaging in Dry Age-related</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Macular Degeneration (AMD) Patients Personnel</td>
<td></td>
</tr>
<tr>
<td>Mehmet Cem Mocan, MD</td>
<td>Identification of Demographic and Family Related Factors That Impede</td>
<td>Greek Orthodox Ladies Philoptochos Society Inc</td>
</tr>
<tr>
<td></td>
<td>Successful Implementation of Amblyopia Treatment in Chicago-Area Children</td>
<td></td>
</tr>
<tr>
<td>Tochukwu Ndukwe, MD</td>
<td>Understanding and Improving the Healthcare Experience for Spanish Speaking</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
<td></td>
<td>Patients with Limited English Proficiency in Ophthalmology</td>
<td></td>
</tr>
<tr>
<td>Paul Parker, MD, MS</td>
<td>Changes in Retinal Blood Flow and Vascular Permeability Using a Novel</td>
<td>VitreoRetinal Surgery Foundation</td>
</tr>
<tr>
<td></td>
<td>Dynamic Kinetic Tracer Model as Biomarkers of Diabetic Retinopathy</td>
<td></td>
</tr>
<tr>
<td>Chandrashekhar Devidas Patil, PhD</td>
<td>Understanding the HSV1 Corneal Infection Latency and Reactivation Through</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
<td></td>
<td>Metabolomics</td>
<td></td>
</tr>
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<td>Anara Serikbaeva, PhD</td>
<td>Hyperglycemia Induced Mitochondria Adaptation</td>
<td>Illinois Society for the Prevention of Blindness</td>
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<tr>
<td>Deepak Shukla, PhD</td>
<td>Drug Encapsulated Carbon testing of Ingevity Carbons</td>
<td>Ingevity Corporation</td>
</tr>
<tr>
<td>Michael G. Sun, MD, PhD</td>
<td>Investigation of an Electromagnetic Device for Blink Reanimation in Facial</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
<td>Van Ann Tran, MD</td>
<td>Nerve Palsy</td>
<td></td>
</tr>
<tr>
<td>Daniel Wang, MD</td>
<td>Quantitative Characteristics of Sickle Cell Maculopathy in Post Hematopoietic</td>
<td>VitreoRetinal Surgery Foundation</td>
</tr>
<tr>
<td></td>
<td>Stem Cell Transplantation Patients Using Multimodal Imaging</td>
<td></td>
</tr>
<tr>
<td>David Wu</td>
<td>Profiling the Loading and Release Efficacy of Dexamethasone Loaded Drug</td>
<td>Illinois Society for the Prevention of Blindness</td>
</tr>
<tr>
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<td>Encapsulated Carbon (DECON)</td>
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<tr>
<td>Ivy Zhu, MD</td>
<td>A Study investigating Aqueous as A Prognostic Mediator in Uveal Melanoma</td>
<td>Illinois Society for the Prevention of Blindness</td>
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<tr>
<td>Ivy Zhu, MD</td>
<td>Aqueous Humor as Potential Liquid Biopsy in Uveal Melanoma</td>
<td>VitreoRetinal Surgery Foundation</td>
</tr>
<tr>
<td>YEAR</td>
<td>LECTURER/AWARD RECIPIENT</td>
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</tr>
<tr>
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<td>Norman P. Blair, MD Research Award</td>
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<td>Illinois Eye and Ear Infirmary at UIC - Resident</td>
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<td>Guy H. Chan, Jr., MD Fellow Education Award</td>
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<td>Gerhard Cless Endowed Lecture</td>
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<td>Mary Elizabeth Hartnett MD, FACS, FARVO</td>
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<td>Paul Sternberg, Jr., MD</td>
<td>Vanderbilt Eye Institute, Vanderbilt University Medical Center</td>
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<td>Morton F. Goldberg, MD, FACS Lecture</td>
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</tr>
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<td>Jules Stein Eye Institute, UCLA</td>
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<td>American Academy of Ophthalmology</td>
</tr>
<tr>
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<td>Mark W. Lunde, MD Memorial Lecture</td>
<td>Wilmer Eye Institute, Johns Hopkins Medicine</td>
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<td>Fasika Ambachew Woreta, MD, MPH</td>
<td>Wilmer Eye Institute, Johns Hopkins Medicine</td>
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<td>Nicholas J. Volpe, MD</td>
<td>Northwestern University</td>
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<td>Anjali M. Bhorade, MD</td>
<td>Washington University in St. Louis</td>
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<td>Jose S. Pulido, MD, MS Endowed Lecture</td>
<td>Yale Eye Center</td>
</tr>
<tr>
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<td>Kristen Nwanyanvu, MD, MBA, MHS</td>
<td>Yale Eye Center</td>
</tr>
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<td>2022</td>
<td>Emily Chew, MD</td>
<td>National Institutes of Health</td>
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<td>Samuel Schoenberger Memorial Glaucoma Lecture</td>
<td>Massachusetts Eye and Ear, Harvard Medical School</td>
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<td>Janey L. Wiggs, MD, PhD</td>
<td>Massachusetts Eye and Ear, Harvard Medical School</td>
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<td>Tin Aung, MBBS, Mmed, FRCS, FRCOphth, FAMS, PhD</td>
<td>Singapore Eye Research Institute; Singapore National Eye Centre (SNEC); National University of Singapore</td>
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<td>2021</td>
<td>Cynthia Mattox, MD, FACS</td>
<td>Tufts University School of Medicine</td>
</tr>
<tr>
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<td>Howard H. Tessler, MD Lecture</td>
<td>Wilmer Eye Institute, Johns Hopkins Medicine</td>
</tr>
<tr>
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<td>Jennifer Thorne, MD, PhD</td>
<td>Wilmer Eye Institute, Johns Hopkins Medicine</td>
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<tr>
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<td>Gary N. Holland, MD</td>
<td>Jules Stein Eye Institute, UCLA</td>
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<td>Janet L. Davis, MD</td>
<td>Bascom Palmer Eye Institute, UMiami Miller School of Medicine</td>
</tr>
<tr>
<td></td>
<td>Jacob T. Wilensky, MD Lecture</td>
<td>John A. Moran Eye Center, University of Utah</td>
</tr>
<tr>
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<td>Craig Chaya, MD</td>
<td>John A. Moran Eye Center, University of Utah</td>
</tr>
<tr>
<td>2022</td>
<td>Pradeep Ramulu, MD, MHS, PhD</td>
<td>Wilmer Eye Institute, Johns Hopkins Medicine</td>
</tr>
<tr>
<td>2021</td>
<td>Joshua Stein, MD, MS</td>
<td>Kellogg Eye Center, University of Michigan</td>
</tr>
</tbody>
</table>
BUILDING A LEGACY OF LIFE-CHANGING EYE CARE

The Cless Family Foundation

Since its formation in 1991 in Northbrook, Illinois, the Cless Family Foundation has been dedicated to improving and supporting education in the sciences, technology, and engineering, mainly focused in the Illinois region. Initially founded by Ruth and Gerhard Cless, the Foundation today is directed by the Cless children and grandchildren, who believe passionately in living by the golden rule, supporting causes they believe in, and helping the underserved. “Our Foundation’s support has evolved to include promising advancements in the medical field as our family, like many others, has faced life threatening illnesses and want to do whatever we can to improve future outcomes,” states the foundation’s leadership.

The Foundation’s generous and game-changing support has played a significant role in the Department of Ophthalmology and Visual Sciences’ Innovation Fund, which enables many of our researchers to pursue cutting-edge research and develop new technologies through the Ai-O Center, ORBIT Lab, ophthalmic health equity program, and ophthalmic healthcare app development fields.

By partnering with researchers such as Pete Setabutr, MD, Michael Sun, MD, PhD, and other accomplished members of the multidisciplinary ORBIT Lab team, funding from the Cless Family Foundation has fostered ongoing research efforts in understanding and tackling eyelid dysfunction, a condition that often leads to severe eye dryness, corneal scarring, infections, and vision loss. Thanks to the foundation’s support, the ORBIT Lab team has made significant strides in preserving and restoring sight through the development of an innovative electromagnetic device designed to dynamically reanimate blinking, a prevalent issue faced by patients with facial paralysis.

“The Cless Family Foundation’s commitment to advancing the frontiers of medical innovation and transforming lives has allowed us to explore pioneering solutions that hold tremendous promise in addressing eyelid dysfunction and its devastating consequences. Through the Foundation’s support, we are making remarkable strides in overcoming the challenges faced by patients with facial paralysis, ensuring improved eye health, and safeguarding vision for those in need,” said Dr. Pete Setabutr, Director of the Oculoplastic & Reconstructive Surgery Service.

Additionally, Cless Family Foundation contributions have further enabled our researchers to continue to refine a patient-centered app for learning about and managing Uveitis, or inflammation of the eye. Together with team members from the Ai-O Center, our Uveitis research team has developed a prototype website and app, currently in Phase 2 of development, which include understandable educational content, reminders for appointments and medications, and a customizable interface to accommodate vision changes. The team is currently recruiting patients for pilot testing and feedback on various functions, including readability, accessibility, and ease of use, which will allow them to then expand testing to a larger number of patients.

Ann-Marie Lobo-Chan, MD, MS, Co-Director of the Department’s Uveitis Service credits the Foundation with the remarkable progress made by the Uveitis team. “We have been able to move to the next phase of development of our Uveitis app and have submitted a manuscript on the needs assessment survey data we obtained from our uveitis patients regarding their attitudes towards use of the uveitis educational materials and app.” These tools have great potential to improve health outcomes and change the lives of our patients.

Cless Surgical Innovation Lab faculty member Yannek Leiderman, MD, PhD, and Biomedical Engineering graduate student Rogerio Nespolo, have created a surgical guidance tool using AI technology to help cataract surgeons track regions of interest in real-time, identify which stage of surgery is happening, and automatically deploy enhancements with the aim of improving surgical outcomes. Their invention can be run on a commercial-grade laptop, serving as an invaluable resource for surgeons during cataract surgery.
“Support from the Cless Family Foundation has fueled our mission at the Al in Ophthalmology Center (Ai-O Center), allowing us to foster a new generation of AI Scientists,” says Darvin Yi, PhD, Technical Director, Ai-O Center; Director, Medical Computer Vision (MCV) Group. “We’ve made strides in ophthalmology research, exploring new terrains in retinopathy, glaucoma, surgical data science, and beyond. The impact of their funding is evident in every progress we make.”

Additionally, thanks to the Cless Family Foundation funding, the Ai-O Center continues to look at new ways to utilize AI to improve disease detection, treatment effectiveness, and technological accuracy. Using large data sets to advance glaucoma prediction among local high-risk, underserved communities, the Ai-O Center incorporates real world patient data from historically marginalized communities into their AI algorithms, reducing bias and bridging gaps in health disparities. Additionally, the Center is exploring how AI can use different diagnosis modalities related to cancer, specifically uveal melanoma to predict disease stage—to help identify and treat patients sooner and more effectively.

Similarly, through a partnership with UI Health’s Health Equity Pilot Program (HEPP), the Department of Ophthalmology and Visual Sciences began late last year integrating AI technology systems in non-eye care patient settings to discover new ways to prevent diabetic patients from developing diabetic retinopathy. Implementation of EyeArt® AI Eye Screening Systems (Eyenuk, Inc.) in the Department of Family & Community Medicine and soon the Diabetes Center and Endocrinology Clinic, has allowed our team to isolate anatomical features and detect early pre-onset of retinopathy in patients who do not normally visit an eye specialist or take the necessary steps to manage their eye care—leading to better patient access to critical care and improved patient outcomes for patients with diabetes in our community, and around the world.

“Funding provided by the Cless Family Foundation served as the spark to help us acquire additional funding for HEPP to promote access to care in underserved communities in our service area,” says R.V. Paul Chan, MD, MSc, MBA, Chair, Department of Ophthalmology and Visual Sciences.

Moreover, the Cless Family Foundation’s long-term dedication to advancing the critical work of the department has fueled our efforts to play a key role in the development and rollout of UI Health’s Center for Health Equity using Machine Learning and Artificial Intelligence (CHEMA), a cross-collaborative initiative interested in bringing advanced AI/ML (Artificial Intelligence/Machine Learning) into the health equity space to improve patient outcomes in underrepresented populations and to directly address bias in technological innovation. Several of the Department of Ophthalmology and Visual Science’s brightest and boldest faculty have been selected to serve on CHEMA’s internal advisory committee to help build the center’s infrastructure, assist in recruitment, and identify education initiatives with the greatest potential to transform medical education curriculum and better incorporate AI/ML knowledge and technologies as they emerge into practice.

“Thanks to The Cless Family Foundation’s passion for inspiring and helping others, the historically marginalized communities we serve are receiving better treatments and care through the use of AI technology, supported by a community of experts in vision sciences who are deeply committed to advancing research, education, and patient care now and into the future,” stated Dr. Chan. “We remain ever grateful for the extraordinary resources they have provided that have enriched our department and the future of eye care in countless ways.”

HONOR ROLL OF DONORS
July 1, 2021 - June 30, 2023
Website: https://go.uic.edu/donors
Or scan below:
RECOGNIZING DR. JOEL SUGAR AND DR. JACOB WILENSKY

JOEL SUGAR, MD

"Your quiet, uncompromising discipline and the high standards to which you held yourself and those around you, have served as an example that has stayed with us and has been an ideal that we aspire to. **I hold you in the highest esteem** for all that you have accomplished and the many lives you have touched in your career."

Harvinder Atluri, MD
R’01

"His complete dedication to education, to caring for patients, was very clear to me. Joel has really been an incredible role model for me over the years and I absolutely owe a lot of my career and my focus in cornea to what I learned from Joel Sugar."

Reza Dana, MD, MSc, MPH
R’93

"Thank you so much for educating multiple generations of eye doctors. Because of you there are so many people in this world that have wonderful vision, and that’s a debt that the world simply cannot repay."

Saba Kadlec, MD amd R. Krishna Sanka, MD
Cornea Fellows ’11

"I’m a better physician and surgeon because of Dr. Sugar’s influence."

Kavitha Sivaraman, MD, R’14

"As residents we learned a lot from Joel, but first and foremost we learned to be doctors. Before patient-centered care was fashionable, there was Joel, who taught us that our first responsibility was the best interest of our patients."

Stephen McLeod, MD
R’93

"It was a privilege having been your fellow and I want to thank you for all that you have taught me. I have become a far better clinician because of you."

Praba Reddy, MD
Cornea Fellow ’01

"I really learned a lot from you, not only medical cornea and surgical cornea, but also compassion for people. **I always remember your passion for doing what’s right for the patient** in every circumstance."

Samuel H. Lee, MD
Cornea Fellow ‘13

1965 - 69
MD, University of Michigan

1970 - 72
Residency, Washington University, St. Louis, MO

1972 - 73
Cornea and External Disease Fellowship with Dr. H. E. Kaufman, University of Florida

1974 - 75
Chief Resident, Washington University, St.

1975
Dr. Sugar joins the IEEI

1976
Director, Cornea Service through 2004

1979
Golden Apple Award for Outstanding Teaching (also won: ’89, ’95, ’08, ’13, ’17)

1985
Medical Director, Illinois Eye Bank/Eversight Illinois, through 2019

1986 - 2005
Board of Directors, Midwest Eye Banks and Transplantation Center

1999 - 2004

2000 - 01
President, The Cornea Society

2004 - 05
Interim Head, Dept. of Ophthalmology (and from 2011-2012)

2008
Life Achievement Honor Award, AAO

2010
Joel Sugar, MD Professorship in Ophthalmology established at UIC
“Your unwavering dedication to the IEEI, your profound passion for patient care, and your invaluable scientific contributions have left an indelible mark. Your legacy continues to inspire and guide us, your grateful trainees.”

Thasarat Sutabutr Vajaranant, MD, MHA
Glaucoma Fellow ’07

“I think what best describes my time spent with Dr. Wilensky is his composure. I never saw him with even a hint of anxiety. Even if there were dozens of patients waiting, the resident clinic calling, and the Goldman field machine backing up, he would always maintain his calm.”

Aaron Cohn, MD
Glaucoma Fellow ’10

“The Samuel Schoenberg, JD Memorial Glaucoma Lectureship fund is established in gratitude to Dr. Wilensky.”

J. Patrick Rhode, MD
Glaucoma Fellow ’95

“Your gentle teaching style is tremendous.”

Anjali Hawkins, MD, Glaucoma Fellow ’01

“Dr. Wilensky’s years of experience, kind way of teaching, and dedication to his patients were a great foundation and model of the kind of physician I hope to be. The fellowship was by far my most memorable and formative year of my training.”

Amy Mehta, MD
Glaucoma Fellow ’19

“Jake’s greatest attribute - and influence - has always been that he is just such a good person. He cares deeply for his patients, and always treated people with compassion and respect.”

J. Patrick Rhode, MD
Glaucoma Fellow ’95

“Dr. Wilensky is a skilled and patient clinician and teacher...A memorable part of fellowship was the informal sessions where we reviewed the recent papers in the Glaucoma literature. With his vast clinical and research experience, Dr. Wilensky emphasized the importance of interpreting the latest findings in a historical context.”

Kara Schultz, MD
Glaucoma Fellow ’09

“I think what best describes my time spent with Dr. Wilensky is his composure. I never saw him with even a hint of anxiety. Even if there were dozens of patients waiting, the resident clinic calling, and the Goldman field machine backing up, he would always maintain his calm.”

Aaron Cohn, MD
Glaucoma Fellow ’10

“Your gentle teaching style is tremendous.”

Anjali Hawkins, MD, Glaucoma Fellow ’01

“Your gentle teaching style is tremendous.”

Anjali Hawkins, MD, Glaucoma Fellow ’01
WHAT WAS THE IEEI LIKE WHILE YOU WERE IN TRAINING?

During residency, every Wednesday evening, Dr Goldberg ran grand rounds, which were attended by ophthalmologists from around the Chicago area. Prior to the rounds, several patients, who had been asked and agreed to participate, were brought back to the GEC (general eye clinic) to be examined by all attendees. As residents, we were expected to examine all patients and be prepared to be called upon (randomly) to describe the findings and formulate a treatment plan. These experiences helped hone our keen observation skills and quick thinking. There were no Power Point presentations, no cellphones and no internet. You had to rely on your memory and fund of knowledge; you either knew it or not. Faculty were fair game too. I can recall many times when my pulse raced. Yet, these moments ultimately inspired us to improve our observation skills, to learn the literature and to be expeditious in our ocular examination. Looking back, I fully see the value of such a Socratic teaching method.

WHAT IS YOUR CURRENT TITLE/JOB? WHAT OTHER ENDEAVORS ARE YOU WORKING ON?

I have been back to UIC since July 2007 as the Director of the Retina Service. I love that I have come full circle, back to where my ophthalmology career began. After residency I went to John Hopkins, The Wilmer Eye Institute for my retina fellowship training. Then, I embarked on my academic retina faculty career - working at Emory Eye Center at Emory University, UCSF part-time and then at Doheny Eye Institute of USC.

I serve on JAMA Ophthalmology as an Associate Editor, on the AAO EyeWiki as Deputy Editor-in-Chief, as President of The Retina Society, and on the AAO Preferred Practice Pattern Committee. On the education side, I am editing a Case Studies in Medical Retina book (due to be published in 2024) and am in leadership roles for multiple online and in-person CME events, including: Moderator of the Retina Cafe for the AAO Annual Meeting, Course Director of the Annual Retina Symposium (March 15, 2024), Program Chair of the Retina Society Meeting 2023, and Program Chair of the American Ophthalmological Society 2024. I published my Age-related Macular Degeneration book a while ago and it is in the 3rd Edition. I also serve as Associate Examiner of the American Board of Ophthalmology (ABO) and have served on the Maintenance of Certification Committee of the AAO.

Dr. Lim is a co-founder of Women in Retina (WinR) and a past-President of Women in Ophthalmology (WIO), the Chinese Ophthalmology Society (CAOS), and the Chicago Ophthalmology Society. Her awards include the AAO Life Achievement Honor Award & Secretariat Award, ASRS Hall of Fame, ASRS Presidential Honor Award, WIO Suzanne-Veronneau Troutman Award, ARVO Gold Fellow, Macula Society Paul Henkind Award, WIO Scientific Contribution Award, Top Doctors, Best Doctors and Mother McAuley Liberal Arts HS Hall of Honor.

DO YOU HAVE ANY WORDS OF WISDOM FOR OUR FUTURE TRAINEES?

Take advantage of all opportunities, be inquisitive and curious and delve into all subspecialities and aspects of ophthalmology during your training. Your UIC experiences will provide an outstanding foundation on which to build your future career.
WHAT WAS THE IEEI LIKE WHILE YOU WERE IN TRAINING?

My fellowship occurred during an exciting time for retinal diseases. We were involved in the Macular Hole study, the Silicone Oil study, and Perfluoro Octane Study. All of these studies represented a significant advancement in the treatment of patients with complex retinal diseases and I had the privilege of having a front row seat.

The fellowship Director was Dr. Norman Blair, who always stressed learning the fundamentals. My surgical mentors included Drs. Shapiro, Resnick, and Territo. I also had the privilege of spending considerable time with Drs. Fishman and Dr. Tessler. However, the mentor who had the greatest influence on me was Dr. Maurice Rabb. He was quite the humble giant, who always kept me on my toes!

There was a particular patient encounter that made a lifelong impression on me. We had a 30 year old monocular patient with sticklers who suffered an irreparable retinal detachment. I remember Dr. Blair speaking with that patient promptly, directly and compassionately. He stated that it was important to promptly let the patient know that we had given it our best effort yet failed to repair her retina, but that we would continue to do everything we could to provide her with assistance. It was an awesome display of what it means to be a humble and caring physician!

There are world class faculty in every subspecialty which made for Grand Rounds that were always enlightening and many times entertaining. However, one of my favorite memories of the Infirmary was of Connie’s pizza, across from Dr. Blair’s lab, in the basement cafeteria!

WHAT IS YOUR CURRENT TITLE/JOB? WHAT OTHER ENDEAVORS ARE YOU WORKING ON?

I am the founder of Warren Retina Associates, a private practice located in Overland Park, Kansas, where I am a solo practitioner. I am also Clinical Professor and the former Chair of Ophthalmology at the University of Kansas.

After leaving the infirmary, I joined the faculty at the University of Kansas. I initially served as Assistant Professor and Residency Program Director. I was ultimately promoted to Professor and Chairman of the department and I served in that role for 6 years. During that time we expanded our faculty, experienced a modest increase in research productivity and developed a retinal fellowship program. After years of wrestling with the politics of academia, I decided to leave full-time academics and pursue clinical practice. I founded Warren Retina Associates but I have continued to interact with the residents and faculty at KU. I also took the opportunity to engage the retina Subspecialty community. I have served on committees for multiple ophthalmic organizations including, The American Academy of Ophthalmology, The Retina Society, the American Society of Retinal Specialist, the American Society of Cataract and Refractive Surgeons, and the American Board of Ophthalmology.

In what is likely my greatest professional accomplishment, I was invited to join the Board of Directors for the American Board of Ophthalmology in 2020. Finally, I am overwhelmed with pride that my youngest daughter just completed her Fellowship in Retinal Diseases and Surgery at the Infirmary. Almost 30 years later, and the legacy continues!!

DO YOU HAVE ANY WORDS OF WISDOM FOR OUR FUTURE TRAINEES?

The Illinois Eye and Ear Infirmary provides a wonderful opportunity for professional growth that accompanied with hard work and dedication will result in many years of both professional and personal satisfaction. But….You better eat your Wheaties!!
Kirk H. Packo, MD, FACS, FASRS
IEEI Alumnus

Kirk H. Packo, MD, Chairman Emeritus and Director of the Retina Section of the Department of Ophthalmology at Rush University Medical Center and Senior Partner with Illinois Retina Associates, passed away on September 1, 2023 at the age of 70. An eminent figure in the world of retina, Dr. Packo will be remembered not only for his pioneering work in vitreoretinal surgery, but also for his extraordinary ability to educate, inspire, and captivate audiences around the globe.

Dr. Packo’s journey into the field of ophthalmology was marked by an early appreciation for the visual field, spending many hours as a child learning from his photographer father. This interest eventually led him to a distinguished career in ophthalmology that spanned over four decades. He pursued his undergraduate education at the University of Notre Dame, where he majored in pre-medicine and speech and drama. After receiving his medical degree at St. Louis University, Dr. Packo completed his residency in ophthalmology at the University of Illinois Chicago and fellowship at Emory University.

A fastidious surgeon, Dr. Packo’s research interests focused on complex retinal surgery and instrument development. He invented over 25 surgical instruments, was the holder of two U.S. patents, and was a co-developer of the artificial silicon retina. He also served as an advisor on multiple medical instrument manufacturer boards.

Dr. Packo was one of the most celebrated lecturers in retina, having delivered over 1,200 presentations in 20 countries. His lectures and presentations were a masterclass in the art of engaging an audience. With a unique blend of humor, storytelling, and profound medical knowledge, he could turn complex retina topics into captivating narratives that left his audiences spellbound. His presentations were a testament to his passion for teaching and his ability to make even the most intricate concepts accessible.

Not one to teach solely from the stage, Dr. Packo was an engaging teacher and mentor to generations of aspiring ophthalmologists. While at Rush, he co-founded the fellowship in vitreoretinal surgery and trained many fellows over the years. He received numerous national and international teaching awards, including the American Academy of Ophthalmology (AAO) Senior Honor Award and the Illinois Eye & Ear Infirmary’s own Golden Apple award. He also held leadership roles in numerous national and international societies and organizations. Dr. Packo was a past president of the American Society of Retina Specialists (ASRS) and had served as a board member since 1992. The Packo Service Award was founded by the ASRS in 2019 to recognize a member for exceptional service to the Society. In addition to writing more than 100 journal articles, he produced over 20 award-winning surgical films.

Dr. Packo was a man who celebrated life and brought joy to others. In honoring Dr. Packo’s memory, we remember not only a brilliant innovator and caring clinician, but a warm and compassionate individual who possessed an infectious sense of humor and an unwavering commitment to his family and friends.

Dr. Packo is survived by his wife Margarita “Maggie” Packo, son Robert (Heather) Packo, step-daughters Melissa De Alba and Amanda (Andre) Anderson, several grandchildren, and a vast community of colleagues and friends who will carry forward his teachings.
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