INCLUSION, DIVERSITY, AND EQUITY AT HARVARD OPHTHALMOLOGY

- Retina Lab Renamed in Honor of Ines and Fredrick Yeatts
- Champions of Retina Research
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Inclusion, Diversity, and Equity Initiatives Drive Meaningful Change Within and Beyond our Institution

Promoting inclusion, diversity, and equity in our department and institutions is a key guiding principle for Harvard Ophthalmology. We are excited to share some new initiatives and programs that promote these values.

We are committed to an holistic approach to inclusion, diversity, and equity (IDE). The EYE CAN program, a multi-tiered framework created by our IDE leaders, is aimed at increasing diversity within the field of ophthalmology. The program components are focused on increasing opportunities to those under-represented in medicine by encouraging people of all ages to explore and learn about the field of ophthalmology. The EYE CAN program includes initiatives directed at school-aged children, medical students selecting a discipline, and leaders within the specialty of ophthalmology.

One program that we are especially proud of is our Harvard Ophthalmology Research Scholars Program, which provides first-year medical students an opportunity to gain exposure to the specialty of ophthalmology through observing and participating in research and clinical care. We believe that creating a diverse pipeline of incoming ophthalmologists allows us to deliver the best possible care to each patient, and research has shown that patients experience improved outcomes when being treated by clinicians with varied backgrounds.

Essential to providing outstanding patient care is our ability to analyze our patient outcomes. Each year, Mass Eye and Ear publishes the *Ophthalmology Quality and Outcomes* report. This report provides our department with an opportunity to identify areas for improvement and encourages transparency. In an effort to better understand how systemic racial and social inequities affect health outcomes, Mass Eye and Ear analyzes ophthalmology outcomes data by race, ethnicity, and other socio-economic determinants.

At the recent Harvard Ophthalmology faculty retreat, our Saturday program focused on inclusion, diversity, and equity. Guest speaker O’Reese Knight, MD, gave a presentation titled, “Cultivating Mass Eye and Ear Trainee Diversity,” which included an update on the current status of diversity in the field of ophthalmology, workforce diversity policies, and candidate selection bias. Dr. Knight presented compelling data on the role of standardized exams in the candidate selection process. Our faculty leaders also presented lightning talks on the topic, followed by breakout sessions to encourage conversations to identify barriers and propose potential solutions and initiatives to continue our growth. Educating our faculty and staff on IDE topics empowers our team as healthcare providers and as colleagues to be more inclusive and aware of unconscious bias.

We continue to work towards an inclusive and diverse department where we encourage innovation, curiosity, and a sense of team, joined by the mission of transformational research, the best in patient care, and educating the next generation of leaders.
Inclusion, Diversity, and Equity at Harvard Ophthalmology

Harvard Ophthalmology is dedicated to fostering an inclusive, diverse, and equitable community—across our department and institutions, and even more broadly at a national level. Building a diverse department strengthens our ability to provide world-class care to our patients, while also bolstering our education and research efforts.

Inclusion, diversity, and equity (IDE) are core values, central to our mission and culture. We are proud to have a faculty made up of over 50% women, with many serving in leadership roles, and we recognize the need to continue to diversify our department by taking steps to include all demographics underrepresented in medicine (URiM) and science.

Over the past several years, we have launched many new programs with the goal of supporting and providing more opportunities to those underrepresented in medicine. Our IDE leaders, James Chodosh, MD, MPH; Alice Lorch, MD, MPH; Joseph Arboleda-Velasquez, MD, PhD; and Ankoor Shah, MD, PhD, are driving several of our initiatives to increase diversity department-wide.

The EYE CAN Program

The EYE CAN Program, envisioned by Dr. Shah and Dr. Lorch, incorporates initiatives to diversify the pipeline of individuals interested in ophthalmology at every level of the professional development lifecycle—from school-aged children to faculty leaders—creating a feeling of inclusion and encouraging each individual to believe “EYE CAN.” Our vision is to provide:

- School-aged children with the dream that they can succeed in any career
- High school students with the seed that careers in science, technology, engineering, and math (STEM) are achievable
- College students with the belief that medical and graduate school are within reach
- Medical and graduate students with the vision that a career in ophthalmology and visual sciences can be exciting
- Residents and postdoctoral fellows with the sponsorship necessary to launch successful careers in medicine and science
- Junior faculty with the mentorship to become leaders

Why IDE and not DEI?

Our inclusion, diversity, and equity leadership team were inspired by a discussion with alumna Eve Higginbotham, SM, MD, ML, Professor of Ophthalmology and Vice Dean for Inclusion and Diversity at Perelman School of Medicine at the University of Pennsylvania.

Dr. Higginbotham approaches IDE by first placing an emphasis on an inclusive environment, which embraces people of all ethnicities, genders, religions, abilities, sexual orientation, historical traditions (like first-time college graduates); and socioeconomic, veteran, and immigrant statuses. This method then allows diversity and equity to flourish by fostering a sense of belonging and value. This concept resonated with our leaders and is at the core of our latest initiatives.

DIVERSITY AS DEFINED BY THE NATIONAL INSTITUTES OF HEALTH

The NIH’s ability to help ensure that the nation remains a global leader in scientific discovery and innovation is dependent upon a pool of highly talented scientists from diverse backgrounds...

1. **Racial and ethnic groups** underrepresented in medicine and biomedical sciences;
2. Individuals identifying as part of the lesbian, gay, bisexual, transgender, queer, intersex, asexual (LGBTQIA+) community; and,
3. Individuals with life paths that are **socially or economically disadvantaged**.¹

**EYE CAN do Anything**

Early on, we encourage school-aged children to be curious about the world around them, including the field of ophthalmology. At this age, the mantra should be supportive and expansive, allowing each child to dream big and to have champions who encourage their ideas of becoming a writer, an astronaut, a doctor, or a scientist.

**VISION SCREENING TOUCHPOINTS WITH CHILDREN**

During regularly scheduled visits, our pediatric ophthalmologists foster fun, open discussions with their patients about their accomplishments; asking them about school and how they are doing; and allowing curious children to play with equipment, ask questions, and learn.

In the local community, our clinicians provide free vision screenings to hundreds of middle-school youths at Camp Harborview in Boston and at the Neighborhood House Charter School. These vision screenings provide yet another opportunity for our clinicians to encourage children and pre-teens to “think big” and to instill curiosity in STEM.

**EYE CAN do STEM**

In high school, adolescents start thinking about careers, and it is our responsibility to ensure that they know about careers in STEM. Preeti Mokka, OD; and Benjamin Jastrzemsbski, MD, serve as mentors in Community Opportunities Advancement at Children’s Hospital (COACH). The COACH program introduces local high school students to careers in the health sciences through opportunities to interact and to work with healthcare professionals.

Additionally, Harvard Medical School graduate and incoming resident Sameen Meshkin, MD, has served as a youth advocate within the Chelsea community, and he is spearheading a new opportunity allowing Chelsea High School students to explore health-related careers through tours and talks with staff at Mass Eye and Ear. Other faculty engage with high school students, offering observerships and research opportunities.

**HARVARD RETINAL IMAGING LABORATORY UNDERGRADUATE MINORITY MENTORSHIP PROGRAM**

In 2021, the Harvard Retinal Imaging Laboratory, led by John Miller, MD, launched an innovative, semester-long mentoring program, which offers premedical students at Harvard College who identify as underrepresented in medicine and science the opportunity to gain early exposure to ophthalmology. Edward Lu, MD, a Harvard Medical School graduate and now PGY1 resident, and Augustine Bannerman, a 2021 graduate of Harvard College and retinal imaging laboratory research associate, developed didactic and experiential program that pairs each student with a formal mentor.

Program participants are given an opportunity to contribute to a research project, participate in laboratory meetings, critically analyze data, and write scientifically—all while continuing their undergraduate education. In addition, students attend virtual shadowing sessions with faculty, who present patient cases and discuss their career paths.
To date, three members of this program have continued research at Mass Eye and Ear and one student was invited to present at the 2021 Association for Research in Vision and Ophthalmology Annual Meeting. Most recently, Dr. Lu presented Creating a Mentorship, Research, and Virtual Shadowing Program for Underrepresented Minority Undergraduates During Covid-19, a paper co-authored by Augustine Bannerman, at the annual Association for University Professors of Ophthalmology meeting. The program has now expanded to include undergraduate students from Massachusetts Institute of Technology.

**EYE CAN do Eyes**

For medical and graduate school students, the EYE CAN program focuses on introducing underrepresented students to ophthalmology and the visual sciences as a career path.

**HARVARD OPHTHALMOLOGY RESEARCH SCHOLARS PROGRAM**

Launched in 2021, the Harvard Ophthalmology Research Scholars program provides rising second-year medical students from underrepresented and disadvantaged groups an immersive, eight-week experience in ophthalmology and vision research at Mass Eye and Ear. Developed and overseen by Drs. Arboleda-Velasquez and Chodosh, the program pairs students with a Harvard Ophthalmology vision scientist, who mentors the student in research skills. Scholars also participate in weekly half-day clinical sessions with a physician in ophthalmology, receive career coaching, community building, and networking during weekly dinner sessions with rotating faculty, and gain wet lab experience with resident teachers. A case study repository provides an opportunity for the Scholars to publish a clinical ophthalmology manuscript, mentored by residents and faculty.

At the end of the program, Scholars continue to receive support and guidance as they prepare their applications for ophthalmology residency programs. For an additional opportunity to network and gain inspiration from alumni and faculty presentations, the Scholars from the prior year attended the 2022 Harvard Ophthalmology Annual Meeting and Alumni Reunion.

“The experience was transformative for my professional growth and motivated me to explore my interest in ophthalmic genetics further. I now feel there is a place for me in ophthalmology, and I am grateful for that!” Cherrell Price, Doctor of Medicine Candidate, Morehouse School of Medicine.

**MINORITY OPHTHALMOLOGY MENTORING PROGRAM**

To help increase diversity in ophthalmology, the American Academy of Ophthalmology (AAO) and Association of University Professors of Ophthalmology (AUPO) developed the Minority Ophthalmology Mentoring (MOM) Program. Dr. Chodosh served as a founding partner of the program, and numerous Harvard Ophthalmology faculty serve as mentors within the program. Medical students accepted to the program are paired with a faculty mentor for ongoing support, attend quarterly career building webinars, and are provided an expense-free trip to attend AAO Annual Meeting to learn about ophthalmology through hands-on experience, presentations, and networking. The MOM program has reached 206 students across over 85 medical schools and 24 participants have matched in ophthalmology residencies. To date, five Harvard Medical School students, one Harvard College student, and one Harvard Ophthalmology research associate (now a University of Chicago medical student) have completed the MOM program.

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**EYE WONDER**

Dr. Chodosh, our department’s Ophthalmology Champion for Diversity, collaborated with Dr. Lorch, Program Director of the Harvard Ophthalmology Residency Training Program, and with Dr. Shah, Director of Medical Student Education at Harvard Medical School, to develop the EYE Wonder Program in 2019. This yearly dinner event brings together Harvard Ophthalmology faculty and residents with first- and second-year Harvard medical students from underrepresented backgrounds, and it highlights opportunities within the field with a pictorial tour highlighting the diversity of patients cared for by ophthalmologists, an opportunity to network, and an awareness of the MOM program opportunity.

**PROGRAM FOR UNDERREPRESENTED MINORITY PEER MENTORSHIP**

Sila Bal, MD, MPH; and Nakul Singh, MD, MSc—both Harvard Ophthalmology Residency Program 2022 graduates—worked with Drs. Chodosh and Shah to form the Program for Underrepresented Minority Peer Mentorship (PUMP). PUMP is a near-peer mentorship program implemented in January 2021, where Harvard Ophthalmology residents serve as mentors, guiding Harvard medical students from underrepresented backgrounds through monthly meetings, attending grand rounds, clinical shadowing opportunities, wet lab sessions, and career development sessions. To date, 16 mentees have participated in the program, and survey results showed a marked increase towards considering an ophthalmology career, as well as more confidence in performing ophthalmic examinations in patients. For the 2022-23 academic year, two of our stellar PGY-4 residents, Alexandra Castillejos Ellenthal, MD; and Luis Martinez-Velazquez, MD, PhD, are leading the PUMP program.

**EYE CAN do Academia**

At the level of resident, fellow, graduate student, and postdoctoral fellow, the EYE CAN program focuses on giving trainees the tools necessary to succeed in academia.

Programs such as PUMP allow our trainees to become mentors to students from underrepresented backgrounds. The mentorship role promotes their development into academics, and it gives them an appreciation for collaboration and promotion among academia to build a stronger department. For clinical and scientific postdoctoral trainees—including those underrepresented—assigned faculty mentors, in addition to the education leadership, meet with trainees regularly to review progress in training, encourage scientific inquiry, and discuss career trajectories. Our faculty mentors’ intentional goal is to act as a sponsor for trainees who are underrepresented, opening doors and creating opportunities for growth within academic ophthalmology and vision sciences.
**EYE CAN Lead**

EYE CAN Lead promotes the development of our faculty who are underrepresented into the next generation of leaders in ophthalmology and vision sciences.

**FACULTY MENTORSHIP AND PROMOTIONS COMMITTEE**

The Faculty Mentorship Oversight Board and the Promotions and Reappointments Subcommittee at Harvard Ophthalmology play important roles in ensuring that each faculty member progresses through the academic ladder.

The Harvard Ophthalmology Mentoring Program, established in 2014 and led by David Hunter, MD, PhD; Patricia D’Amore, PhD, MBA; and Joan W. Miller, MD, pairs each junior faculty member with two mentors within the department. Mentors and mentees meet at least twice yearly to define clinical, investigative, educational, and leadership goals. Faculty mentors are also charged with providing clarity on the promotion process and helping junior faculty members feel supported and valued. Faculty mentors work with mentees to increase and to expand the reach of scholarly activity and to identify teaching opportunities and peer mentorship. In 2019, the Harvard Ophthalmology Mentoring Program received a Program Award for Culture of Excellence in Mentoring from Harvard Medical School.

As we continue to improve our faculty mentorship program, the Harvard Ophthalmology Mentoring Oversight Board will now initiate a new program to support underrepresented faculty in their development. It will perform periodic reviews of mentorship and of promotion afforded to underrepresented faculty to ensure equitable opportunities. With this intentional approach, similar to what was done for women almost 30 years ago, we envision building a change in leadership demographics in our department and across the nation. Harvard Ophthalmology has also been strategic about sponsoring underrepresented faculty to attend AAO and AUPO leadership development courses.
With time, and intentional efforts, we expect to build an inclusive and diverse community of colleagues and leaders within ophthalmology and vision sciences.

Other Efforts

One Class of Care

Our department is committed to providing equal care to all patients. More than four decades ago, Mass Eye and Ear introduced faculty supervision for previous resident-only clinics, integrated trainees into faculty practices, and adopted one class of care for all patients in outpatient clinics and the OR. This model ensures that each patient is seen by an attending faculty clinician and receives world-class treatment. Today, many ophthalmology departments have widely adopted this same model, which also reflects the AUPO’s mission to eliminate disparities in access to quality care that exists because of social status, race, or insurance type.

Quality and Outcomes Data and IDE Research

Many of our trainees are researching the role that healthcare inequities, including disparities based on race, ethnicity, gender, sexual orientation, disability or socioeconomic status, plays in patient care and clinical outcomes. Harvard Ophthalmology graduating residents Drs. Bal and Singh used our own data from the Quality and Outcomes report, which provides clinical outcomes statistics for all subspecialities at Mass Eye and Ear, to show that Asian patients are most commonly undercorrected during refractive surgery and have an increased risk for intra-operative complications during cataract surgery. These contributions develop their careers in academia and create awareness of inequities that we need to address in providing optimal care for our patients.

LGBTQIA+ in Ophthalmology

In a recent survey of graduating medical students who identified as LGBTQIA+, researchers assessed their intended medical specialty areas. The authors found that ophthalmology ranked second-to-last. Harvard Ophthalmology recognizes the LGBTQIA+ community as underrepresented in medicine and is working to ensure a public forum exists for discussions on improving representation in the field.

Faculty member, David Sola-Del Valle, MD, is surveying the national landscape of LGBTQIA+ individuals in ophthalmology and recently presented preliminary findings at the 2022 Harvard Ophthalmology Faculty Retreat. His findings show that the ophthalmology LGBTQIA+ community nationwide may not feel included, and his talk highlighted for our department that inclusion again should be the center of our approach to diversifying.

Providing Eye Care to Underserved Communities

Dr. Lorch, Director of the Harvard Ophthalmology Residency Training Program, is leading a pilot program that provides comprehensive ophthalmology care and disease screenings to underserved communities in the Boston area. Screenings are held in Revere at the Mass General Revere Health Center and in Jamaica Plain at the Brookside Community Health Center. Over 20% of patients screened have findings of diabetic retinopathy or other eye pathology that requires follow up and potential treatment.

Not only do these screenings provide an essential service to the community, but they also give Harvard medical students and Harvard Ophthalmology residents an opportunity to volunteer and learn about community health. Diagnosing eye disease at its early stages improves patient outcomes and decreases the costs associated with blindness in our society.

Harvard Ophthalmology is proud of these exciting initiatives created by our faculty, residents, and trainees. We look forward to strengthening the state of diversity in ophthalmology by continuing to invest in our current IDE programs department-wide and encouraging further conversations and innovation in IDE to forge a more diverse and inclusive workforce for all.

Harvard Ophthalmology Faculty Retreat

Harvard Ophthalmology brought together more than 150 faculty and staff from its affiliated hospitals for a Faculty Retreat in Providence, Rhode Island, in April 2022. The two-day event focused on the themes of innovation; and inclusion, diversity, and equity, and provided opportunities for colleagues to reconnect and exchange ideas.

The first day focused on innovation, business, and digital transformation. Michael Gilman, PhD, Chief Executive Officer at Arrakis Therapeutics, shared his experience developing therapeutics throughout his career. Andrew Lo, PhD, Professor of Finance, Sloane School of Management at MIT, discussed the importance of financial engineering in supporting biomedicine advances. Carl Berke, PhD, Partner at Mass General Brigham Ventures, discussed the process of taking an idea, obtaining investors, and bringing a new product to market.

The second day focused on inclusion, diversity, and equity with guest speaker O’Reese Knight, MD. Dr. Knight presented Cultivating Mass Eye and Ear Trainee Diversity, a comprehensive update on the status of diversity in the specialty of ophthalmology both nationally and at our own institution. Dr. Knight presented an analysis of medical student and residency recruitment showing us where we are succeeding and where we need to focus energy to improve. The event also included three-minute lightning presentations from faculty, breakout sessions, team exercises, group meals, walks, yoga, and meditation.

Thank you to our faculty organizers Patricia D’Amore, PhD, MBA; Reza Dana, MD, MSc, MPH; Alice Lorch, MD, MPH; Ankoor Shah, MD, PhD; Joe Arboleda-Velasquez, and Luk Vandenberghe, PhD; and our event planning team Christina Stetson; Ellen Weinraub; and Erica Eaton for putting together such a terrific retreat program.

Excellence in Mentoring Awards Presented at Faculty Retreat

In recognition of her career-long commitment to mentoring, **Janey L. Wiggs, MD, PhD** was awarded the Harvard Ophthalmology Excellence in Mentoring Lifetime Achievement Award.

Throughout her 30-year career at Harvard Ophthalmology, Dr. Wiggs has served as a trusted advisor, role model, and friend to generations of medical students, residents, fellows, and junior faculty. She has been especially successful in helping her mentees secure NIH research funding. Dr. Wiggs goes above and beyond, often working closely with her mentees to assist on specific goals and projects and career development strategies.

**Deeba Husain, MD** was awarded the Harvard Ophthalmology Excellence in Mentoring Award for her dedication to mentoring both clinical and research junior faculty and trainees.

Generous with her time, Dr. Husain is known to be a focused and present mentor, committed to helping her mentees develop their careers and ensure they continue on an upward trajectory. Since joining Harvard Ophthalmology in 2013, she has formally mentored more than 50 medical students, residents, fellows, and junior faculty members.
Ophthalmology Faculty at ARVO 2022

Harvard Ophthalmology and Mass Eye and Ear were well represented at this year’s Association for Research and Vision in Ophthalmology (ARVO) annual meeting, held May 1-4 in Denver, Colorado. Faculty and trainees from across the department participated as course instructors, panelists, lecturers, and presenters, with several faculty and trainees receiving honors and awards.

More than 120 faculty, trainees, alumni, and friends attended the Harvard Ophthalmology Alumni Reception, which provided a great opportunity to reconnect with colleagues in person after nearly two years of virtual events.

Congratulations to all of our faculty who received ARVO awards for their outstanding contributions to vision research.

**Dr. Janey Wiggs Received Mildred Weisenfeld Award**
Janey Wiggs, MD, PhD, Associate Chief of Ophthalmology Clinical Research, presented the 2022 Mildred Weisenfeld Award Lecture, in recognition of her distinguished scholarly contributions to the clinical practice of ophthalmology. Dr. Wiggs presented her work on the discovery of glaucoma-causing genes and genomic loci, the importance of genetic testing, and the use of novel gene-based glaucoma therapies in the future.

**Dr. Paulo Bispo Received Research Fellowship**
Paulo Bispo, PhD, an infectious disease microbiologist at Mass Eye and Ear, received the Mallinckrodt Uveitis Research Fellowship. This $45,000 award will fund his project to develop a rapid and unbiased metagenomic sequencing approach to detect uveitis pathogens.

**Dr. Daisy Shu Recognized with ARVO Emerging Advocacy Award**
Daisy Shu, PhD, a postdoctoral research fellow at Schepens Eye Research Institute of Mass Eye and Ear, received this award in recognition of her advocacy efforts, which includes as an ARVO Members-in-Training Trustee and speaking with congressional staff on the importance of funding vision research.

**Chrys Stevens Wins Members-in-Training Poster Contest**
Chrys, a graduate student in the Alex Bowers Laboratory at Schepens Eye Research Institute of Mass Eye and Ear, is the 2022 Low Vision Cross Sectional Group winner of the ARVO Members-in-Training Outstanding Poster Competition. Chrys is currently in the third year of a dual OD/MS program at New England College of Optometry and presented the results of her master’s project evaluating the use of Advanced Driver Assistance Systems by drivers with reduced visual acuity who are licensed to drive with a bioptic telescope.

**Dr. Patricia D’Amore Named ARVO President-Elect**
Patricia D’Amore, PhD, MBA, Associate Chief for Ophthalmology Basic and Translational Research at Mass Eye and Ear, was named the next President-Elect of ARVO at the annual meeting. Dr. D’Amore has served as an ARVO Trustee since 2019 and will begin her term as President of ARVO in 2024.

**Dr. Eric Pierce to Receive 2023 Proctor Medal**
At the 2022 annual meeting it was announced that Eric Pierce, MD, PhD, Director of the Harvard Ophthalmology Ocular Genomics Institute at Mass Eye and Ear, is the 2023 recipient of the Proctor Medal for his distinguished achievements in ophthalmology research. Dr. Pierce will receive this award and present the Proctor Lecture at next year’s annual meeting in New Orleans.
Nrf2 Protein May Slow RPE Degeneration

A team of researchers at Mass Eye and Ear and Harvard Medical School (HMS), including David Wu, MD, PhD, has reversed degeneration of the retinal pigment epithelium in preclinical models. In this mouse model of retinitis pigmentosa, researchers observed that retinal pigment epithelium (RPE) cells and nearby retina cells died from oxidative stress. Nrf2 AAV therapy has potential implications for the treatment of retinitis pigmentosa, but also for age-related macular degeneration, as oxidative stress is thought to be one of its central disease mechanisms. Although oxygen is necessary for the retina to function, a hyperoxic environment can be harmful. A potential therapeutic strategy for retinitis pigmentosa is to prevent oxidative damage. Previous research in mice has shown that gene therapy with Nrf2, a transcription factor that regulates antioxidant genes, led to longer survival of cones and longer retention of vision. Using adeno-associated viral vector (AAV) gene therapy, researchers overexpressed the Nrf2 in mouse RPE and were able to upregulate the oxidative stress defense in the RPE and prevent RPE loss. This also protects from overlying cone photoreceptors and improved vision.

RUNX1 Inhibition Proposed for Prevention, Treatment of Lung Injury in Severe COVID-19

Scientists at Mass Eye and Ear and Harvard Medical School (HMS) have found evidence that a transcription factor called RUNX1 is involved in the pathobiology of pulmonary fibrosis. In an article published in The American Journal of Pathology, Leo Kim, MD, PhD; and Dr. Joseph Arboleda-Velasquez, MD, PhD, explain why RUNX1 inhibition shows promise as a new approach to treating COVID-19. RUNX1 inhibition reduced the expression of ACE2 and FURIN, two proteins that play critical roles in lung uptake of the SARS-COV-2, in the mouse model and in human lung epithelial and vascular endothelial cells in vitro. Combined with the findings that 78% of 113 genes previously found to be dysregulated in patients with COVID-19 contained binding sites for the RUNX1 modulation, suggesting RUNX1 has an important role in the pathobiology of COVID-19.

Widefield Swept-Source OCTA Predicts Vitreous Hemorrhage in Patients with Proliferative Diabetic Retinopathy

Researchers at Mass Eye and Ear, Mass General Hospital, and Harvard Medical School (HMS) conducted a prospective study in which 45 patients (55 eyes) with proliferative diabetic retinopathy (DR) underwent widefield swept-source optical coherence tomographic angiography (SS OCTA) imaging, patients were then monitored conventionally for vitreous hemorrhage (VH).

The results of this study, presented by John B. Miller, MD and published in Ophthalmology, suggest widefield SS OCTA provides clinically useful information, supplemental to already known systemic risk factors, for predicting development of vision-threatening sequelae like vitreous hemorrhage in eyes with proliferative diabetic retinopathy. Patients with proliferative diabetic retinopathy are typically monitored with color fundus photography and fluorescein angiography. However, these two-dimensional imaging methods can’t capture the morphology of retinal neovascularization and the relationship with surrounding tissues that may signal development of vitreous hemorrhage.
2022 Clinical Graduation

Harvard Ophthalmology celebrated its clinical trainee graduation on Thursday, June 16. The ceremony, held at the Boston Museum of Science, celebrated eight Harvard Ophthalmology residents, the AY2021–2022 Chief Resident, and two optometry residents, as well as 24 clinical fellows from Mass Eye and Ear, Joslin Diabetes Center, and Boston Children’s Hospital. Thank you to Harvard Ophthalmology alumni for presenting each graduate with a Harvard insignia chair.

Congratulations to the faculty and staff honored during the ceremony.

James Chodosh, MD, MPH  
Simmons Lessell Excellence in Education Award

David Wu, MD  
Clinical Teacher of the Year

Jae Young You, MD  
Surgical Teacher of the Year Award

Molly Mullen, Medical Administrative Assistant  
Residency Appreciation Award

Jose Davila, MD  
Fellow of the Year Award

Ines Lains, MD, PhD  
Harvard Ophthalmology Resident Peer Recognition Award.

What’s Next for Our Resident Graduates?

Congratulations to our Chief Resident and PGY-4/Senior Residents who are making plans for the next phase of their ophthalmology careers. Neal Patel will be Chief Resident and Director of the Ophthalmology Trauma Service for AY 2022-23. Current Chief Resident Margot Weinert and our residents matched with top clinical and research fellowship programs.

Sila Bal, MD, MPH  
Cornea Fellowship at Mass Eye and Ear

Carolina Chiou, MD  
Ophthalmic Plastic Surgery Fellowship at Mass Eye and Ear

Jacob Cox, MD, MPhil*  
Vitreoretinal Fellowship at Cole Eye Institute/Cleveland Clinic

Inês Lains, MD, MSc, PhD  
Vitreoretinal Surgery Fellowship at Mass Eye and Ear

Neal Patel, MD  
AY 2022-23 Chief Resident, Director of the Ophthalmology Trauma Service, and Instructor in Ophthalmology, Harvard Ophthalmology/Mass Eye and Ear

Nakul Singh, MD, MS  
Medical/Surgical Retina Fellowship at Wilmer Eye Institute

Karen Wai, MD*  
Vitreoretinal Fellowship at Stanford University

Sarah Wang, MD  
Cornea Fellowship at Wilmer Eye Institute

CHIEF RESIDENT  
Marguerite Weinert, MD  
Pediatric Ophthalmology and Strabismus Fellowship at Boston Children’s Hospital/Mass Eye and Ear

OPTOMETRY RESIDENTS  
Christina Cherny, OD  
Faculty, New York Eye and Ear Infirmary, Ichan School of Medicine at Mount Sinai

Isabel Deakins, OD  
Optometry and Contact Lens Service Mass Eye and Ear

*Graduate is a recipient of a Heed Fellowship
What’s Next for Clinical Fellow Graduates?

ANTERIOR SEGMENT, MASS EYE AND EAR
Kanika Agarwal, MD
Global Ophthalmology Program at Wills Eye Hospital
Joining the Comprehensive Ophthalmology Service at Mass Eye and Ear/Harvard Ophthalmology as an Instructor in 2023

CORNEA, EXTERNAL DISEASE, AND REFRACTIVE SURGERY, MASS EYE AND EAR
Levi N. Kanu, MD
Instructor in Ophthalmology, Harvard Medical School
Member of the Cornea Service at Mass Eye and Ear

Sana S. Qureshi, MD
Member of the Cornea and Refractive Service at Corneal Associates of New Jersey, Fairfield, New Jersey

GLAUCOMA, MASS EYE AND EAR
Karen Willa Hong, MD, Mphil
Glaucoma Specialist, Hawaii Permanente Medical Group

Derek D. Mai, MD
Attending, Glaucoma Service, Madigan Army Medical Center, Tacoma, Washington

Catherine M. Marando, MD
Associate Physician, Glaucoma Specialist, Kaiser Permanente Southern California

Annie M. Wu, MD
Clinical Instructor, Glaucoma, University of Michigan, Ann Arbor, Michigan

INHERITED RETINAL DEGENERATIONS, MASS EYE AND EAR
Sarah Chorfi, MD, FRcsc
Computational Genomics, Computational Genomics Summer Institute, University of California, Los Angeles Attending Physician in Ophthalmology, University of Montreal

NEURO-OPTHALMOLOGY, MASS EYE AND EAR
Jeffrey Gluckstein
Assistant Professor of Ophthalmology/Neurology, University of Southern California, Los Angeles, California

Kiandokht Keyhanian, MD
Multiple Sclerosis Fellowship, Beth Israel Deaconess Hospital, Harvard Medical School

NEURO-OPTHALMOLOGY/STRABISMUS, MASS EYE AND EAR
Mary Tien Labowsky
Neuro-Ophthalmologist, University of Colorado, Aurora, Colorado

OCULAR IMMUNOLOGY AND UVEITIS, MASS EYE AND EAR
Eileen L. Chang, MD
Assistant Professor of Ophthalmology, SUNY Stony Brook, Long Island, New York

OPHTHALMIC GENETICS/PEDIATRIC MEDICAL RETINA, BOSTON CHILDREN’S HOSPITAL/MASS EYE AND EAR
Leyla Yavuz Saricay, MD, FEBO
Instructor in Ophthalmology at Harvard Medical School
Member of the Pediatric Ophthalmology and Strabismus Service, Boston Children’s Hospital

OPHTHALMIC PATHOLOGY, MASS EYE AND EAR
Cynthia K. Harris, MD
Fellowship in Forensic Pathology, New York Medical Examiner’s Office, New York

VAMSEE K. NEERUKONDA, MD
Oculoplastic and Reconstructive Surgery Fellow, UT Southwestern Medical Center, Dallas, Texas

OPHTHALMIC PLASTIC SURGERY, MASS EYE AND EAR
Edith R. Reshef, MD
Instructor in Ophthalmology at Harvard Medical School Member of the Pediatric and Adult Oculoplastics Service, Boston Children’s Hospital

PEDIATRIC OPHTHALMOLOGY AND ADULT STRABISMUS, BOSTON CHILDREN’S HOSPITAL
Jenny Dohlman, MD
ASOPRS Oculoplastics Fellow, Sinai Hospital of Baltimore, Maryland

Lauren Michele Hennein, MD
Faculty, University of California San Diego

Alexander K. Young, MD
Instructor in Ophthalmology at Harvard Medical School
Pedicatric Ophthalmologist, Boston Children’s Hospital

MEDICAL RETINA FELLOW
Aaron M. Fairbanks, MD
Senior Associate Consultant, Medical Retina Specialist, Mayo Clinic Health Systems

VITREORETINAL SURGERY, MASS EYE AND EAR
Cassie A. Ludwig, MD, MS
Assistant Professor of Ophthalmology, Stanford University, California

Marlene Deanne Wang, MD
Vitreoretinal Surgeon, New Jersey Retina, Morristown, New Jersey

Frances Wu, MD
Instructor in Ophthalmology at Harvard Medical School
Member of the Retina Service, Mass Eye and Ear

Trainees Receive Heed Fellowships

The Heed Ophthalmic Foundation promotes advancement of education and research by providing postgraduate fellowship support to outstanding ophthalmologists who will pursue academic careers in ophthalmic patient care, education, and research.

Congratulations to our graduating and incoming trainees who were named 2022-23 Heed Fellows, one of the most prestigious honors for Ophthalmology Trainees. Heed Fellow include Harvard Ophthalmology residents (class of 2022) Jacob Cox, MD, MPhil; and Karen Wai, MD; as well as second-year Mass Eye and Ear vitreoretinal and cornea fellows, Jose Davila, MD; and Aaron Kaufman, MD.
Mass Eye and Ear Quality and Outcomes Report Goes Digital

Mass Eye and Ear/Mass General Hospital leads the medical community in developing and implementing ophthalmology outcomes measures in every subspecialty area. This year’s report is available online and includes interactive charts and data for easy viewing.

Visit masseyandear.org/ophthalmology-outcomes or scan the QR code above to view the report today.

Faculty Updates

DEBORAH K. VANDERVEEN, MD, PROMOTED TO PROFESSOR OF OPHTHALMOLOGY

Deborah K. VanderVeen, MD, an international expert and leader in pediatric cataract and retinopathy of prematurity (ROP), was promoted to Professor of Ophthalmology at Harvard Medical School (HMS), effective March 1, 2022.

An accomplished clinician scientist and Director of the Pediatric Cataract Service at Boston Children’s Hospital, Dr. VanderVeen is nationally known for her expertise in complex pediatric cataracts, as well as the treatment of ROP, attracting referrals from across the country. Cataract surgery in infants is an entirely different procedure than in adults, and she played a critical role in defining and advancing the use of intraocular lenses in infants and young children.

A faculty member at Boston Children’s Hospital for 22 years, Dr. VanderVeen also helped to establish the hospital’s Retinoblastoma Program, currently serves as Treasurer of the Children’s Hospital Ophthalmology Foundation, and previously served as the hospital’s Director of Ophthalmology Fellowship training. She has also led efforts at Boston Children’s Hospital to create the first telemedicine retinopathy of prematurity program in the country that allows clinicians to provide care via a remote reading center.

An exceptional researcher and scholar, Dr. VanderVeen has lectured nationally and internationally on pediatric cataracts and ROP and has co-led a number of National Eye Institute (NIH)-sponsored clinical trials. Recently, she was the site principal investigator for an NIH-supported Infant Aphakia Treatment Study that has set the standard for care of infants with cataracts.

Dr. VanderVeen is also a dedicated teacher, training dozens of emerging leaders in pediatric ophthalmology and organizing numerous educational workshops on pediatric cataracts and ROP. The quality of her teaching at these conferences has led to invited named lectureships at academic institutions around the country, including the 2019 Lorand Johnson Invited Lectureship at the Cleveland Ophthalmological Society University Hospitals Grand Rounds. She has received numerous awards and honors, including Senior Achievement Awards from the American Academy of Ophthalmology and American Association for Pediatric Ophthalmology and Strabismus, and was recently accepted for membership in the prestigious American Ophthalmological Society.
LEO A. KIM, MD, PHD, NEXT INCUMBENT OF THE MONTE J. WALLACE OPTHALMOLOGY CHAIR IN RETINA AT MASS EYE AND EAR

Leo A. Kim, MD, PhD, a clinician scientist with surgical expertise and an innovator in the treatment of retinal diseases associated with neovascularization and fibrosis and an Associate Professor of Ophthalmology at Harvard Medical School, was named as the next incumbent of the Monte J. Wallace Ophthalmology Chair in Retina at Mass Eye and Ear, effective December 1, 2021.

This endowed chair was established by Monte J. and Anne H. Wallace in 2016 to honor the memory of Charles L. Schepens, MD—regarded by many as the “founder of modern retinal surgery.” Mr. Wallace, a longstanding trustee of both Mass Eye and Ear and the Schepens Eye Research Institute, was a great supporter of Dr. Schepens and his research. In addition to honoring Dr. Schepens in perpetuity, the endowed chair empowers the incumbent to advance his or her academic research and teaching pursuits.

In addition to his work as a clinician scientist, Dr. Kim is also a generous and committed mentor to Harvard undergraduate students, medical students, ophthalmology residents, and fellows.

Dr. Kim Receives 2022 Iraty Award

This year’s Iraty Award for Research in Retinal Diseases honors Dr. Leo Kim. The award, which includes a $100,000 prize, was established by former faculty member Francois C. Delori, PhD, and his wife Rosamond Castle Putnam to pay tribute to the life and work of Dr. Charles Schepens.

The award will support Dr. Kim’s investigation of netarsudil and topotecan as new treatments for proliferative vitreoretinopathy.

HMS APPOINTMENTS/PROMOTIONS

To Professor of Ophthalmology:
- Deborah K. VanderVeen, MD

To Associate Professor of Ophthalmology:
- Joseph Arboleda-Velasquez, MD, PhD
- Tobias Elze, PhD, Mass Eye and Ear
- Matthew Gardiner, MD, Mass Eye and Ear
- Gena Heidary, MD, PhD, Mass Eye and Ear
- Leo Kim, MD, PhD, Mass Eye and Ear
- Paulo Antonio Silva, MD, Mass Eye and Ear
- Nurhan Torun, MD, Mass Eye and Ear

To Assistant Professor of Ophthalmology:
- Corinna Bauer, MD, Mass Eye and Ear
- Han-Ying Peggy Chang, MD, Mass Eye and Ear

To Instructor of Ophthalmology:
- Daisy Shu, PhD, Schepens Eye Research Institute of Mass Eye and Ear
- Menglu Yang, MD, Schepens Eye Research Institute of Mass Eye and Ear
LEADERSHIP APPOINTMENTS/TRANSITIONS

Grayson Armstrong, MD, MPH, Medical Director, Ophthalmology Emergency Service, Mass Eye and Ear.

Jason I. Comander, MD, PhD, Director, Inherited Retinal Disorders Service, Mass Eye and Ear.

Patricia D’Amore, PhD, MBA, President-Elect of Association for Research and Vision in Ophthalmology

Ula V. Jurkunas, MD, President of the Eye Staff and President-elect of the Medical Staff at Mass Eye and Ear

Melanie A. Kazlas, MD, Mass Eye and Ear Board of Surgeons

Michael M. Lin, MD, Associate Director of the Glaucoma Fellowship, Mass Eye and Ear

Anna M. Stagner, MD, Frederick A. Jakobiec Director of the David Glendenning Cogan Ophthalmic Pathology Laboratory

Michael K. Yoon, MD, Mass Eye and Ear Board of Surgeons

DEPARTURES

Dr. James Chodosh Named Inaugural Chair of the Department of Ophthalmology and Visual Sciences at the University of Mexico

James Chodosh, MD, MPH, is relocating in September to become the inaugural Chair of the Department of Ophthalmology and Visual Sciences at the University of New Mexico in Albuquerque.

An exceptional clinician scientist and mentor, Dr. Chodosh serves as the Vice Chair of Education and Director of Diversity, Equity, and Inclusion at Harvard Ophthalmology, as well as Associate Chief of Ophthalmology Education, Associate Service Director of the Cornea Service and Director of the Cornea fellowship at Mass Eye and Ear. He also holds the Edith Ives Cogan Professorship of Ophthalmology at Harvard Medical School.

Dr. Chodosh joined the department in 2008, as Dr. Claes Dohlman’s successor for the Boston keratoprosthesis program. The Boston KPro is the most widely used artificial corneal prosthesis, providing sight to patients who are blind from corneal disease. Dr. Chodosh has worked closely with Dr. Dohlman to refine the Boston KPro and extend availability around the world. In addition, he has led a robust research program in corneal infectious disease as an expert in viral molecular biology, genomics, and treatment.

Over the past 14 years, Dr. Chodosh has been a dedicated and generous teacher to many residents and trainees at all levels. He has also developed a passion for addressing the needs of those who are under-represented in medicine. Initially, he represented the department in the national Minority Ophthalmology Mentoring (MOM) program developed by the American Academy of Ophthalmology and the AUPO.

Subsequently, he joined efforts at Mass Eye and Ear, and has led efforts in Harvard Ophthalmology, working with Drs. Ankoor Shah, Alice Lorch, and Joe Arboleda. Last year, Dr. Arboleda and he established the Harvard Ophthalmology Research Scholars Program for underrepresented and underprivileged medical students to spend the summer at Mass Eye and Ear, learning about eye research and ophthalmology.
**Pablo Argüeso, PhD**, a Senior Scientist at Schepens Eye Research Institute of Mass Eye and Ear and Associate Professor of Ophthalmology at Harvard Medical School, left the department in December 2021 to take a position as Director of Research in the Department of Ophthalmology at Tufts University and Director of the Tufts Center for Vision Research at Tufts Medical Center.

**Mohamed Ismail Ashrafali, PhD**, an Instructor in Ophthalmology and Investigator at Mass Eye and Ear, left the department in August 2021 to take a new role as a Senior Scientist at BioMarin Pharmaceuticals.

**Mary K. Daly, MD**, stepped down from her role as Chief after more than 16 years to take an executive leadership role with mePrism, a software company. During her tenure, she oversaw all ophthalmology resident and fellowship training at the VA Boston and served as the 115th President of the New England Ophthalmological Society.

**Eric Ng, PhD**, an Assistant Scientist at Schepens Eye Research Institute of Mass Eye and Ear and Assistant Professor of Ophthalmology, left the department at the end of May to head pre-clinical research at EyeBio. During his time at Harvard Ophthalmology, he was a recipient of the HMS Young Mentor Award, the Alcon Research Institute Young Investigator Award, and attended the HMS Leadership Development Course for Physicians and Scientists.

**Vasiliki Poulaki, MD**, a Lecturer on Ophthalmology, Part-time, and a retina specialist at VA Boston Healthcare System, left the department in January for a private practice opportunity in Maryland.

**Jaya Rajaiya, PhD**, a researcher in the Ophthalmology department at Mass Eye and Ear will be relocating to Albuquerque, New Mexico to join the Department of Molecular Genetics and Microbiology at the University of New Mexico. Jaya has been a productive researcher and also served as Director of the Postdoctoral Training Program at Mass Eye and Ear. In this role, she oversaw the scientific training of postdoctoral research fellows to enable their success as they began their scientific careers. For her generous teaching Jaya received an Excellence in Teaching Award from Harvard Medical School in 2015.

**Magali Saint-Geniez, PhD**, an Associate Scientist at Schepens Eye Research Institute of Mass Eye and Ear, left the department take a director position in the Ophthalmology program at The Novartis Institutes for BioMedical Research, the innovation engine of Novartis.

**Hajirah N. Saeed, MD**, a member of the Cornea Service and Director of the Cornea Fellowship at Mass Eye and Ear and a Pediatric Cornea Specialist at Boston Children’s Hospital, relocated to Chicago to be closer to extended family. She recently joined The University of Illinois College of Medicine as an Assistant Professor of Ophthalmology.

**RETIREMENTS**

**Jan A. Kylstra, MD**, a Lecturer on Ophthalmology at Harvard Medical School and member of the Retina Service at Mass Eye and Ear, retired in October 2021 and relocated with his wife to be closer to their children and families.

Dr. Kylstra earned his medical degree from Duke University School of Medicine. After completing his residency training here at Harvard Ophthalmology, he served as Chief Resident and completed a vitreoretinal fellowship at Mass Eye and Ear. After training, Dr. Kylstra held positions at the University of North Carolina and the Medical University of South Carolina and spent 10 years in private practice. He rejoined Mass Eye and Ear in 2016, where he has been highly regarded by his patients and colleagues. Dr. Kylstra received the Harvard Ophthalmology Clinical Teacher of the Year Award in 2017 and was recognized as one of Boston magazine’s “Top Doctors” in 2017, 2019, 2020, and 2021.
Awards and Grants

FACULTY AWARDS AND HONORS

2021 Harvard Ophthalmology Excellence in Mentoring Award
Matthew Gardiner, MD

2021 Harvard Ophthalmology Lifetime Achievement in Mentoring Award
Darlene Dartt, PhD

2022 Harvard Ophthalmology Excellence in Mentoring Award
Deeba Husain, MD

2022 Harvard Ophthalmology Lifetime Achievement in Mentoring Award
Janey L. Wiggs, MD, PhD

Norman Knight Leadership Development Award in Ophthalmology
Silas Wang, MD

Harvard Medical School Community Service Award
Lotfi Merabet, OD, PhD, MPH

2021 AAO ANNUAL MEETING AWARDS

Outstanding Humanitarian Service Award
John Kempen, MD, MPH, PhD, MHS

Guest of Honor
Paul P. Lee, MD (alumnus)

Senior Achievement Award
Douglas R. Frederick, MD (alumnus)
Victor H. Gonzalez, MD (alumnus)
John E. Kempen, MD, MPH, PhD, MHS
Howard D. Pomeranz, MD, PhD (alumnus)
Rishi P. Singh, MD (alumnus)
Sarkis H. Soukiasian, MD (alumnus)

Achievement Award
Nicholas J. Butler, MD
Peter Hovland, MD, PhD (alumnus)

Carolyn Kloek, MD (alumna)
Mark R. Melson, MD (alumnus)
Bobek S. Modjatahedi, MD (alumnus)
Christina R. Prescott, MD (alumnus)
Ankoor S. Shah, MD, PhD
Lucy Q. Shen, MD
Christopher E. Starr, MD (alumnus)
Michael K. Yoon, MD
Joshua A. Young, MD (alumnus)

Secretariat Award
James Chodosh, MD, MPH
Louis R. Pasquale, MD (former faculty)
Philip J. Rosenfeld, MD, PhD (alumnus)
Hana L. Takusagawa, MD (alumnus)

International Scholar Award
Marc Toeteberg-Harms, MD (alumnus)

Presented the Costenbader Lecture at the American Association for Pediatric Ophthalmology and Strabismus Annual Meeting
David G. Hunter, MD, PhD, Ophthalmologist-in-Chief, Boston Children’s Hospital

2021 American Academy of Optometry William Feinbloom Award
Gang Luo, PhD, Schepens Eye Research Institute of Mass Eye and Ear

Inducted into the American Ophthalmological Society 2022
Ula Jurkunas, MD, Mass Eye and Ear
Deborah K. VanderVeen, MD, Boston Children’s Hospital

2022 ARVO Mallinckrodt Uveitis Research Fellowship
Paulo Bispo, PhD, Mass Eye and Ear

2022 ARVO Mildred Weisenfeld Award
Janey L. Wiggs, MD, PhD
**AWARDS CONTINUED**

Nominated for the 2021 Barbara J. McNeil Faculty Award for Exceptional Institutional Service to Harvard Medical School  
*Demetrios Vavvas, MD, PhD, Mass Eye and Ear*

2021 Claes H. Dohlman, MD, PhD, Fellowship Award  
*Thomas Dohlman, MD, Mass Eye and Ear*

2021 Educator of the Year UMass Residents  
*Benjamin Jastrzembski, MD, Boston Children’s Hospital*

**Eleanor and Miles Shore Faculty Development Awards**

2021 Mass Eye and Ear Alice J. Adler Fellowship  
*Yihe Chen, MD, Schepens Eye Research Institute of Mass Eye and Ear*

2021 Mass Eye and Ear Fellowship Award  
*Courtney Ondeck, MD, Mass Eye and Ear*

Iraty Award for Research in Retinal Diseases  
*Leo Kim, MD, PhD*

2022 Lawrence J. Singerman Medal  
*Lloyd Paul Aiello, MD, PhD, Beetham Eye Institute of Joslin Diabetes Center*

Inducted into the National Academy of Medicine in 2021  
*Zhigang He, PhD, Boston Children’s Hospital*

**MASS GENERAL BRIGHAM PILLARS IN EXCELLENCE AWARDS**

Fostering Community  
*Lotfi Merabet, OD, PhD, MPH, Schepens Eye Research Institute of Mass Eye and Ear*

Integrating Diversity, Equity, and Inclusion  
Team Leader  
*Joseph F. Arboleda-Velasquez, MD, PhD, Schepens Eye Research Institute of Mass Eye and Ear*

Team Members  
*James Chodosh, MD, MPH, Mass Eye and Ear*  
*Alice Lorch, MD, MPH, Mass Eye and Ear*  
*Ankoor Shah, MD, PhD, Boston Children’s Hospital*  
*Aisha Traish, MD, Mass Eye and Ear*
TRAINEE AWARDS

Mass Eye and Ear
2021 Excellence in Patient Care
Marlene Wang, MD

Mass Eye and Ear
2021 Robert Brockhurst Academic Development Award
Frances Wu, MD

Mass Eye and Ear
2021 Thomas J. Madden Fellowship in Retina
Cassie Ludwig, MD

Mass Eye and Ear
2022 Abelson Family Fellowship
Catherine Liu, MD, Cornea Fellow,
Mass Eye and Ear

American Academy of Ophthalmology
Advocacy Ambassador Program
Daniel Liebman, MD, MBA, PGY-3
Ophthalmology Resident

American Academy of Ophthalmology
EyeWiki® Resident and Fellows-in-Training Contest
Cris Jacoba, MD, Chief Retina Fellow, Beetham Eye Institute at Joslin Diabetes Center

American Society of Cataract and Refractive Surgery Foundation 2022 Resident Excellence Award
Yanna Bian, MD, PGY-3 Ophthalmology Resident
Sarah Wang, MD, PGY-3, Ophthalmology Resident

Association for Research in Vision and Ophthalmology (ARVO) 2021 Emerging Advocate Award
Daisy Shu, Research Fellow, Schepens Eye Research Institute of Mass Eye and Ear

American Society for Investigative Pathology
Postdoctoral Award for Outstanding Research
Daisy Shu, Research Fellow, Schepens Eye Research Institute of Mass Eye and Ear

American Society for Investigative Pathology
Monga-Hans Trainee Scholar Award
Zhengping Hu, MD, PhD

American Society for Investigative Pathology
Pathologist-in-Training Award
Daisy Shu, Research Fellow, Schepens Eye Research Institute of Mass Eye and Ear

Boston Children’s Hospital Trainee Research Awards
Yohei Tomita, MD, PhD, Research Fellow
Felix Yemanyi, PhD, OD, Research Fellow
William Allen, Research Assistant

Mass General Brigham Pillars in Excellence Awards
Advancing Innovation & Progress
Nerea Zabaleta Lasarte, PhD, Postdoctoral Research Fellow, Mass Eye and Ear

Metabolomics Society Best Presentation Award
Ines Lains, PGY-4 Ophthalmology Resident

New England Ophthalmological Society Annual Hecht Poster Contest, First Prize
Sila Bai, MD, MPH, PGY-4 Ophthalmology Resident,
Karen Wai, MD, PGY-4 Ophthalmology Resident

VitreoRetinal Surgery Foundation Research Award
Inês Lains, MD, PhD, PGY-4 Ophthalmology Resident

GRANTS (AUGUST 2021- MAY 2022)

ALCON RESEARCH INSTITUTE
$75,000 over one year
Eric Gaier, MD, PhD, Boston Children's Hospital
“Leveraging Pre- and Post-synaptic Timing to Reverse Amblyopia”

ALCON RESEARCH INSTITUTE YOUNG INVESTIGATOR GRANT
$75,000 over one year
Milica Margeta, MD, PhD, Mass Eye and Ear
“Mechanisms of microglial cytotoxicity in glaucoma”
ASSOCIATION FOR RESEARCH IN VISION AND OPHTHALMOLOGY MALLINCKRODT UVEITIS RESEARCH FELLOWSHIP
$45,000 over one year
Paulo Bispo, PhD, Mass Eye and Ear “Metagenomic sequencing approach to detect uveitis pathogens”

BOSTON CHILDREN’S HOSPITAL FACULTY INNOVATED RESEARCH AWARD
$5,000 over one year
Nimesh Patel, MD, Boston Children’s Hospital “Retinopathy of prematurity injection consortium.”

BOSTON CHILDREN’S HOSPITAL TRANSLATIONAL INVESTIGATOR SERVICE GRANT
$607,810 over four years
Mary Whitman, MD, PhD, Boston Children’s Hospital “Translating genetic duplications from strabismus patients into models to better understand development.”

DEPARTMENT OF DEFENSE VISION RESEARCH AWARD
$1,968,846 over 3 years
Sunil K. Chauhan, Schepens Eye Research Institute of Mass Eye and Ear
Reza Dana, MD, MSc, MPH, Mass Eye and Ear “Topical hepatocyte growth factor for corneal regeneration and reversal of scarring.”
$1,468,322 over 3 years
Reza Dana, MD, MSc, MPH, Mass Eye and Ear “Alpha-melanocyte stimulating hormone therapeutic intervention for prevention and reversal of corneal edema following ocular injury.”
$358,319 over two years
Reza Dana, MD, MSc, MPH, Mass Eye and Ear “Eye-targeted sustained delivery of anti-inflammatory and antibiotic drugs to injured eyes.”

EDWARD N. & DELLA L. THOME MEMORIAL FOUNDATION AWARDS PROGRAM IN ALZHEIMER’S DISEASE DRUG DISCOVERY RESEARCH
$500,000 over two years
Joseph Arboleda-Velasquez, MD, PhD “Research involving antibodies that mimic the effect of a rare genetic variation linked to Alzheimer’s protection- APOE3 Christchurch”

ELLISON FOUNDATION
$125,000 over one year
Tatjana Jakobs, MD, Schepens Eye Research Institute of Mass Eye and Ear “Neuroprotection of retinal ganglion cells in glaucoma.”

GILBERT FAMILY FOUNDATION VISION RESTORATION INITIATIVE
$1,300,000 over three years
Michael Young, PhD, Schepens Eye Research Institute of Mass Eye and Ear “Increasing the success of retinal ganglion cell transplantation.”
$984,553 over three years
Petr Baranov, MD, PhD, Schepens Eye Research Institute of Mass Eye and Ear “Vision Restoration in Neurofibromatosis: Donor RGC response to microenvironment.”

JOHN E. FETZER INSTITUTE AT CHAPMAN UNIVERSITY
$150,415 over one year
Gabriel Kreiman, PhD, MSc, Boston Children’s Hospital “Consciousness and Free Will: A joint neuroscientific-philosophical investigation”

KNIGHTS TEMPLAR EYE FOUNDATION CAREER STARTER RESEARCH GRANT
$70,000 over one year
Tianxi Wang, PhD, Boston Children’s Hospital “Inflammatory signals from photoreceptors regulate retinopathy of prematurity via SOCS3”
MASSACHUSETTS LIONS EYE RESEARCH FUND (MLERF)

$105,000
Mohamed Elmasry, MD, PhD, Beetham Eye Institute at Joslin Diabetes Center
“Point-of-care macular spectral domain optical coherence tomography within a diabetic retinopathy ultrawide field retinal imaging telemedicine program.”

$105,000
Paolo S. Silva, MD, Beetham Eye Institute at Joslin Diabetes Center
“Better predicting retinopathy severity and risk of vision loss using retinal imaging data”

$105,000
Jennifer K. Sun, MD, MPH, Beetham Eye Institute at Joslin Diabetes Center
“Evaluate the retinal microvasculature under conditions of normal versus increased oxygenation using adaptive optics scanning laser ophthalmoscopy and optical coherence tomography angiography imaging of the central microcirculation in eyes across the entire range of diabetic retinopathy severity.”

$105,000
Jing Chen, PhD, Boston Children’s Hospital
“Molecular factors of ocular birth defects caused by genetic mutations in WNT2B”

$105,000
Eric Gaier, MD, PhD, Boston Children’s Hospital
“The mechanism of suppression, a key driver of amblyopia development”

$105,000
Mary Whitman, MD, PhD, Boston Children’s Hospital
“The role of interneurons in the development of nystagmus in albinism”

$105,000
Elizabeth Rossin, MD, PhD, Mass Eye and Ear
“Structure-based network analyses of genetic mutations that cause inherited retinal disorders”

$105,000
David Wu, MD, PhD, Mass Eye and Ear
“The role of retinal metabolism on early age-related macular degeneration”

$105,000
Meredith Gregory-Ksander, PhD, Schepens Eye Research Institute
“Restoring microglia homeostasis as a treatment for glaucoma.”

$105,000
Eric Ng, PhD, Schepens Eye Research Institute
“Therapeutic potential of purified recombinant heparin-binding domain protein in treating diabetic retinopathy.”

MYLES AND GERTRUDE HANSON FOUNDATION

$40,000 over one year
Mary Whitman, MD, PhD, Boston Children’s Hospital
“Genetic causes of strabismus.”

NATIONAL EYE INSTITUTE

$510,000 over two years
Paulo Bispo, PhD, and Lucia Sobrin, MD, MPH, Mass Eye and Ear
“Advancing diagnostics of infectious uveitis with metagenomic analysis.”

$2,961,964 over four years
Alex Bowers, PhD, Schepens Eye Research Institute of Mass Eye and Ear
“Scanning and detection at intersections.”

$3,472,430 over 5 years
Dong Feng Chen, PhD, Schepens Eye Research Institute of Mass Eye and Ear
Lucy Shen, MD, Mass Eye and Ear
“Investigate the immune mechanisms underlying neuron loss in glaucoma.”

$541,750 over two years
Dong Feng Chen, PhD, Schepens Eye Research Institute of Mass Eye and Ear
“Histone and DNA methyltransferases in optic nerve regeneration”

$591,000 over two years
Reza Dana, MD, MSc, MPH, Mass Eye and Ear
“Therapeutic function of alpha-melanocyte stimulating hormone in acute injury and chronic degeneration of corneal endothelium.”
$2,408,655 over four years
Meredith Gregory-Ksander, PhD, Schepens Eye Research Institute of Mass Eye and Ear
“Fas Ligand Cleavage regulates ocular homeostasis and glaucoma.”

$212,678 over two years
Mohammed Mirazul Islam, PhD, Schepens Eye Research Institute of Mass Eye and Ear
“Mesenchymal stem cells can restore and maintain corneal endothelial function.”

$12,803 over two years
Aparna Raghuram, OD, PhD, Boston Children’s Hospital
“Vision disorders in adolescents following concussion.”

$1,705,395 over three years
Joseph Rizzo, MD, Mass Eye and Ear, and Tatjana C. Jakobs, MD, Schepens Eye Research Institute of Mass Eye and Ear
“Cross-species vascular anatomy and sensitivity to intraocular pressure in glaucoma.”

$209,046 over three years
Jonathan Soucy, PhD, Schepens Eye Research Institute of Mass Eye and Ear
“Regulating cell-cell interactions to improve donor retinal ganglion cell integration.”

$1,843,815 over five years
Mary Whitman, MD, PhD, Boston Children’s Hospital
“Molecular mechanisms underlying strabismus risk.”

$499,182 over two years
Nazlee Zebardast, MD, Mass Eye and Ear
“Sociodemographic predictors of healthcare utilization and adverse outcomes in Medicare beneficiaries with glaucoma.”

NATIONAL INSTITUTES OF HEALTH/NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASE

$11,409,360 over five years
Michael Gilmore, PhD, Mass Eye and Ear
“Harvard-wide Program on Antibiotic Resistance.”

NATIONAL INSTITUTE OF MENTAL HEALTH

$270,000 over two years
Gabriel Kreiman, PhD, MSc, Boston Children’s Hospital
“Neural circuits for action perception: An integrative approach.”

NATIONAL SCIENCE FOUNDATION

$326,166 over four years
Gabriel Kreiman, PhD, MSc, Boston Children’s Hospital
“Studying language in the brain in the modern machine learning era”

RESEARCH TO PREVENT BLINDNESS

$38,333 over on year
Paulo Bispo, PhD, Mass Eye and Ear
“Unbiased assessment of etiology of periorbital and orbital infection.”

$300,000 over 3 years
Russell Woods, PhD, Schepens Eye Research Institute
“Better understand the responses of the visual system to the loss of foveal vision.”

$300,000 over 4 years
Nazlee Zebardast, MD, Mass Eye and Ear
“Develop novel imaging and genomics-based screening and diagnostics tools for glaucoma.”
Faculty Alumni Team Up to Give Our Residents the Night Off

Harvard Ophthalmology alumni took a trip down memory lane in October 2021 to give our current residents a well-deserved night off. Seven alumni (and current faculty members) Grayson Armstrong, MD, MPH; Mohammad Dahrouj, MD, PhD; Alice Lorch, MD, MPH; Katie Luo, MD, PhD; Elizabeth Rossin, MD, PhD; Aisha Traish, MD, and Chief Resident Margot Weinert took over the Ophthalmology Emergency Service at Mass Eye and Ear and provided consults across multiple Harvard hospitals while our trainees enjoyed an evening off. Thank you to our faculty/alumni volunteers for making the First Residents’ Night Off such a success.

In Memoriam

Alan Adolph, PhD, a former faculty member and accomplished neurophysiologist who specialized in retinal transplants and optic nerve regeneration, passed away on March 28, 2022 at the age of 90. Over the span of his career, Alan was an adjunct Associate Professor of Physiology at Boston University School of Medicine, an Assistant Professor of Ophthalmology at Harvard Medical School, and a visiting scholar at Harvard University Department of Molecular Cellular Biology. He attended Brooklyn Technical High School, Rensselaer Polytechnical Institute, Massachusetts Institute of Technology, and The Rockefeller Institute.

Philip Jerome Harris, MD, an alumnus and Associate Surgeon Emeritus at Mass Eye and Ear, passed away on February 9, 2022. Dr. Harris earned his Bachelor of Science in Environmental Engineering from Washington University in St. Louis and later returned to the campus for graduate work in botany. In 1974 he earned a medical degree from Case Western Reserve University School of Medicine. He then completed an internship at Cleveland Clinic and his residency training at Harvard Ophthalmology. Dr. Harris served in the U. S. Army during the Vietnam War Era as a preventive medicine officer at Fort Ord, California. Prior to his retirement, he practiced ophthalmology in Dedham, Massachusetts, with the Dedham Medical Associates ophthalmology group.

David Lalonde Knox, MD, an alumnus and longtime ophthalmologist at the Wilmer Eye Institute at Johns Hopkins University, passed away on February 1, 2022 at the age of 91. Dr. Knox first joined Johns Hopkins as an intern in 1955, and then spent two years as an Army physician in Korea. He returned to the Wilmer Eye Institute for his ophthalmology residency, and then completed a fellowship at Mass Eye and Ear. Dr. Knox specialized in neuro-ophthalmology and uveitis. He had a particular interest in diagnosing difficult uveitis cases, and patients came from around the world to seek his opinion.

Richard Ruiz, MD, an alumnus and renown ophthalmologist, passed away in September 2021 at the age of 89. Dr. Ruiz completed his residency training at Wayne State University’s Kresge Eye Institute. Despite an eagerness to begin practicing medicine and support his family, his father encouraged another year of study. Dr. Ruiz completed a retina fellowship at Mass Eye and Ear.

Save the Date!

ALUMNI RECEPTION AT AAO ANNUAL MEETING
October 1, 2022
Chicago, Illinois

CORNEA BIENNIAL CONFERENCE
October 21-22, 2022
Boston, Massachusetts
## Philanthropy

### ALUMNI GIVING SOCIETY OF HARVARD OPHTHALMOLOGY AT MASS EYE AND EAR

We extend our grateful thanks to the 2021 fiscal year members:

<table>
<thead>
<tr>
<th>Champion: Gifts of $25,000 and higher</th>
<th>Friend: Gifts of $1,000 to $2,499</th>
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<tr>
<td>Robert J. D’Amato, MD, PhD and Janey L. Wiggs, MD, PhD</td>
<td>Anonymous</td>
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<td>Francois C. Delori, PhD</td>
<td>Christopher M. Andreoli, MD</td>
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<td>C. Stephen Foster, MD</td>
<td>Hasan M. Bahrani, MD</td>
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<td>Frederick A. Jakobiec, MD, DSc.*</td>
<td>Charles K. Beyer-Machule, MD</td>
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<tr>
<td>Michael J. Price, MD, FRCSC</td>
<td>Nancy Canter Weiner, MD and Mark J. Weiner, MD</td>
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<td><strong>Visionary: Gifts of $10,000 to $24,999</strong></td>
<td>Kenneth K. Chang, MD</td>
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<td>Anthony P. Adamis, MD</td>
<td>James Chodosh, MD, MPH and Jayabarathy Rajaiya, PhD</td>
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<td>Mark S. Borchert, MD</td>
<td>Thomas G. Chu, MD, PhD</td>
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<td>Jack V. Greiner, OD, DO, PhD</td>
<td>Steven H. Cobb, MD</td>
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Retina Research Laboratory Renamed in Honor of Ines and Fredrick Yeatts

In 2021, the Angiogenesis Laboratory of Mass Eye and Ear was renamed the Ines and Fredrick Yeatts Retina Research Laboratory in honor of two of Mass Eye and Ear’s most generous donors. Since 2007, Fred and Ines have donated more than $11 million to Mass Eye and Ear scientists.

The laboratory, co-led by Principal Investigators, Joan W. Miller, MD; and Demetrios Vavvas, MD, PhD; focuses on the underlying mechanisms of vascular biology and the discovery of new paradigms for diseases involving neovascularization and angiogenesis.

Shared Love of Science Propels Research

For Fred and Ines, philanthropy is all about partnering with individual scientists to accelerate innovation and discovery. The first scientist who caught their attention was Zheng-Yi Chen, DPhil, Associate Professor of Otology and Laryngology at Harvard Medical School. Ines and Fred read about his hearing research in The Boston Globe. Fascinated, they called him to inquire further and are now big supporters of his research.

In 2010 when Ines began experiencing symptoms of age-related macular degeneration (AMD), the couple became interested in supporting researchers who were working to prevent age-related vision loss. At that time, Drs. Joan W. Miller, MD, and Demetrios Vavvas, MD, PhD, had started working on a highly innovative research program in neuroprotection, which aims to prevent vision loss by rescuing retinal cells before they die. Intrigued by this novel approach, Fred and Ines started supporting their laboratory with significant gifts each year. In 2015, in addition to funding research fellows and laboratory expenses, they underwrote the purchase of state-of-the-art imaging technology that enable researchers to study live cells, accelerating the pace of the laboratory’s research.

“With Fred and Ines on our team, we have been able to drive research forward at an exciting pace. A partnership like this comes once in a lifetime, if you are lucky, and we cannot express our thanks enough,” said Dr. Miller.

“"We really enjoy our visits with Drs. Miller and Vavvas because they are opportunities to ask questions and learn from the best. I must say, we have been very impressed with the productivity that comes out of their laboratory! We are so pleased that we can help out in this small way.” said Ines Yeatts.
Pete and Margie Ankeny – Remembering Champions of Retina Research

In January 2022, long-standing supporters of Harvard Ophthalmology/Mass Eye and Ear Margaret (Margie) Ankeny (88) and DeWalt (Pete) Ankeny (89) passed away peacefully surrounded by their five children, just hours apart from each other. Over the years, the Ankeny family has generously donated over $7.5 million to the department to fund advances in retina research.

The Ankeny family’s support for Schepens Eye Research Institute of Mass Eye and Ear began when Pete Ankeny’s parents, Marie and DeWalt, both experienced retinal detachments in the 1950s. Due to innovative technology developed by Dr. Charles L. Schepens, their sight was restored. From that point forward, Pete’s parents supported research and improved treatment options to prevent and treat blinding eye diseases. Pete, who also experienced retinal detachment later in life, began to support our research initiatives in the 1970s.

Pete began his career serving in marketing and operations roles at Theodore Hamm Brewing Company. He then joined First National Bank of Minneapolis in the trust department, eventually becoming Chair and CEO of First Bank System (now US Bank) until his retirement in 1989. Pete also served as a devoted member of the Schepens Eye Research Institute Board of Directors from 1992 to 2011 and the Mass Eye and Ear Board of Directors from 2011 to 2020.

Margaret was a devoted mother and was involved in many volunteer activities, including serving on the board of the Minnesota Orchestra and chairing the Symphony Ball.

Through the Ankeny Foundation and the Ankeny Family Fund of Minneapolis Foundation, the Ankeny family generously supported critical retina initiatives, including endowing the Ankeny Scholar of Retinal Molecular Biology. The Ankeny family donated more than $1.5 million toward the Harvard Ophthalmology Age-related Macular Degeneration Center of Excellence.

Pete and Margie’s daughter, Sally Ankeny Reiley, continues their legacy of supporting eye research. She serves on the Mass Eye and Ear Board of Trustees and has raised over $260,000 as a member of Mass Eye and Ear’s Boston Marathon Team since 2014.

Their generous and enduring support has advanced retina research and contributed to our ability to bring innovative, sight-saving treatments to our patients each and every day.
EVENTS UPDATE...

Save the date for the
32nd Biennial Cornea Conference

October 21-22, 2022

Registration Now Open!