



SPECIAL ISSUE: Women in Ophthalmology



- Closing the gender gap
- Harvard Ophthalmology women rise to leadership
- Ophthalmology education expands at VA Boston
- Are non-surgical treatments for thyroid eye disease in our future?
- Trainees receive top awards from Alcon, New England Ophthalmological Society, and more



HARVARD MEDICAL SCHOOL

DEPARTMENT OF

Ophthalmology

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NOTES FROM THE CHAIR

Closing the Gender Gap: Women in Ophthalmology



Harvard Ophthalmology has come a long way since Deborah Pavan-Langston, MD, became the first female Harvard Ophthalmology resident in 1966. Dr. Langston paved the way for many women—including me—to train, pursue careers in academic medicine, and lead the field.

To borrow one of Dr. Langston's phrases, the number of women in our department has gone "from one to some to many." In the past 10 years, more than half of our residents (46 out of 80) have been women and many more have pursued clinical and research fellowships within the department.



Watch Dr. Langston's 2015 Alumni Talk "From None to One to Many"
eye.hms.harvard.edu/langston

Claes Dohlman, MD, PhD, former Chair of Harvard Ophthalmology, was among the first to advocate for women at Harvard. During his tenure (1974-1989), 22 percent of Harvard Ophthalmology residents were women. That number rose to 35 percent (37 out of 105) under the leadership of Frederick Jakobiec, MD, DSc, who became Chair in 1989. That same year, Mariana D. Meade, MD, was the first woman to serve as Chief Resident at Mass. Eye and Ear, an initial step for many who later became leaders in ophthalmology. Since 2010, the majority of our Chief Residents have been women.

Today, I am pleased to note that 46 percent of our full-time faculty, 40 percent of our full professors, and more than half of our clinical fellows and postdoctoral research fellows are women. Additionally, more women are rising to leadership positions in clinical care, research, and education (see page 3).

In the United States and Canada, 36 percent of women ophthalmology department chairs are Harvard Ophthalmology alumni.

We have made substantial progress in the last 50 years, and the number of female Harvard Ophthalmology trainees, faculty, researchers, and leaders in our field continues to steadily increase. I am grateful to Dr. Langston and all the women who pursued their passions (while braving the inevitable loneliness that pioneers often face). They created more opportunities for women, and our department remains dedicated to the recruitment, retention, and advancement of women leaders at Harvard Ophthalmology. ■

Joan W. Miller, MD
Chief and Chair

Harvard Ophthalmology Women Rise to Leadership

Since becoming the first woman Chair of Harvard Ophthalmology in 2003, **Joan W. Miller, MD**, has advanced the department by seizing new opportunities related to its three key mission areas: clinical care, research, and education. In turn, these initiatives have provided unique opportunities for faculty, including women, at all levels to lead the department to its full potential.

Research

In 2008, Dr. Miller created a new Vice Chair leadership structure to develop, strengthen, and grow core Harvard Ophthalmology services and programs. As the department's first Vice Chair for Basic and Translational Research, **Patricia A. D'Amore, PhD, MBA**, develops department-wide programs in basic science, enhances mentoring programs for postdoctoral fellows and junior faculty, and encourages Harvard Ophthalmology interactions with Harvard Medical School and Harvard University graduate school programs. **Janey Wiggs, MD, PhD**, the first Vice Chair for Clinical Research, guides the department's clinical research program, which includes strategic planning and development of the biobank.

Clinical Care

With predictions of more patients needing ophthalmic care in the coming years, **Carolyn Kloek, MD**, works closely with ophthalmology leadership to implement and coordinate Mass. Eye and Ear's strategy for growth in her role as Associate Chief for Practice Management at Mass. Eye and Ear. As part of this effort, **Suzanne Freitag, MD**, helps to lead practice acquisitions and improve referral relations to expand the hospital's clinical network in her role as Director of Network Development for Mass. Eye and Ear Ophthalmology.

In December 2012, Mass. Eye and Ear opened a new full-service ambulatory care center in the Longwood Medical Area, where Dr. Kloek serves as Clinical Director of Ophthalmology. At Brigham and Women's Hospital, she also oversees comprehensive and subspecialty ophthalmology services and emergency eye trauma coverage to BWH patients in her role as Chief of the Division

of Ophthalmology in BWH's Department of Surgery. At the VA Boston Health-care System, **Mary Daly, MD**, Chief of Ophthalmology, has dramatically improved ophthalmic care for veterans during her 11 year tenure.

In 2014, Mass. Eye and Ear expanded its clinical footprint to the west and south of Boston by acquiring practices in Waltham; Plainville; and Providence, RI. **Kathryn Hatch, MD**, and **Magdalena Krzystolik, MD**, were appointed as Site Directors for these outpatient offices. In addition **Deeba Husain, MD**, and **Angela Turalba, MD**, provide similar leadership for the Mass. Eye and Ear offices in Stoneham (Retina Consultants) and East Bridgewater.

With comprehensive and subspecialty eye care available at a growing number of locations, clinical leaders are essential in unifying and streamlining the clinical and administrative operations within the services. In particular, as Service Director of the Comprehensive Ophthalmology and Cataract Consultation Service, Mass. Eye and Ear, **Sherleen Chen, MD**, oversees 14 physicians, who practice at four Mass. Eye and Ear outpatient offices. As Medical Director of the Pediatric Ophthalmology and Strabismus Service, Boston Children's Hospital, **Melanie Kazlas, MD**, also oversees the BCH and Mass. Eye and Ear physicians who provide collaborative services at Mass. Eye and Ear. Other clinical leaders include: Dr. Freitag, Director, Ophthalmic Plastic Surgery Service, Mass. Eye and Ear; **Amy Watts, OD**, Director, Vision Rehabilitation, and Optometry and Contact Lens Services, Mass. Eye and Ear; and Dr. Turalba, Associate Director of the Glaucoma Service, Mass. Eye and Ear.

Continued on page 9



Left column, from top: Patricia A. D'Amore, PhD, MBA; Carolyn Kloek, MD; Mary Daly, MD; Magdalena Krzystolik, MD; Angela Turalba, MD; Melanie Kazlas, MD; Teresa Chen, MD

Right column, from top: Janey Wiggs, MD, PhD; Suzanne Freitag, MD; Kathryn Hatch, MD; Deeba Husain, MD; Sherleen Chen, MD; Amy Watts, OD; Gena Heidary, MD, PhD



Read Mass. Eye and Ear's 2015 Quality and Outcomes Report
masseyeandear.org/quality-book

2016 Annual Meeting and Alumni Reunion



More than 330 alumni, faculty, and trainees, attended the Harvard Ophthalmology Annual Meeting and Alumni Reunion June 10-11, which offered an array of continuing medical education events, as well as opportunities for reconnecting with former classmates.



Deborah Pavan-Langston, MD (left), the first female Harvard Ophthalmology resident, and Kathryn Colby, MD, PhD (right)

Co-chaired by **Ula Jurkunas, MD**, and **Gena Heidary, MD, PhD**, the Annual Meeting on June 10 featured faculty presentations on scientific and clinical topics related to diabetic macular edema, age-related macular degeneration, glaucoma, ocular inflammatory disease, cataracts, and more.

Alumna **Kathryn Colby, MD, PhD**, presented the 2016 Mariana Mead Lecture, in which she described the past, present, and future of Fuchs' dystrophy treatment for corneal disease.

More than 50 trainees participated in the Annual Trainee Poster Contest. Winners included **Sharad Mittal, PhD**, and **Li Wang, MD, PhD**, for Basic and Translational Research, and **Aubrey Gilbert, MD, PhD**, and **Ines Laines, MD**, for Clinical Research.



Timothy Peirism, MD (left), with Peter Veldman, MD (right) at the Annual Trainee Poster Contest



Left to right: Anne Simmons and her husband Richard Simmons, MD (Harvard Ophthalmology alumnus); and Claudia Richter, MD, Ophthalmic Consultants of Boston (Harvard Ophthalmology/Mass. Eye and Ear alumna).

Trainee Awards

Gragoudas Prize for Best Paper by
a Mass. Eye and Ear trainee

Rosaria Fernandez-Godino, PhD
(Basic and Translational)

Avni Patel, MD
(Clinical)

Cornea Center of Excellence Best Resident Research
Award in Cornea and Refractive Surgery
Emma Davies, MD

On June 11, Chair **Joan W. Miller, MD**, opened the Alumni Reunion by introducing its newest members – the class of 2016. Director of Harvard Ophthalmology Alumni, **Joseph Rizzo III, MD**, followed with a tribute honoring **Simmons Lessell, MD**, who passed away in May 2016. Dr. Lessell was one of the department's most esteemed teachers, mentors, and leaders in medical education, and the 2016 Alumni Reunion was dedicated in his honor.



Watch Dr. Rizzo's Tribute to Dr. Lessell
eye.hms.harvard.edu/simmonslessell

Throughout the day on Saturday, alumni representatives from classes ending in years 1 and 6 shared pearls of wisdom and memories of their time at Mass. Eye and Ear/Harvard Ophthalmology. **Richard Masland, PhD**, presented the 2016 Distinguished Research Achievement Award Lecture, "Optogenetic Therapies for Blindness: Problems and Prospects."



Roger Steinert, MD, presented the 2016 Distinguished Clinical Achievement Award Lecture via video conference, in which he shared memories from his time as a Harvard Ophthalmology resident. Colleague **Ann Bajart, MD**, accepted the award on his

behalf (middle, with **Joseph Rizzo III, MD**, left).

The event was sponsored by Harvard Ophthalmology, Genentech, Bausch & Lomb, Mass. Eye and Ear Alumni Association, Mass. Eye and Ear, Schepens Eye Research Institute of Mass. Eye and Ear, Boston Children's Hospital, Joslin Diabetes Center, and Beth Israel Deaconess Medical Center. ■



Simmons Lessell (center, seated) surrounded by more than 30 fellows whom he trained. This photo was taken at a Festschrift, held in Dr. Lessell's honor at Mass. Eye and Ear on May 25, 2013, the day of his 80th birthday. Seated to his right is wife Irma who passed away in 2014.

Mass. Eye and Ear Alumni Lead Campaign for Simmons Lessell Fellowship

Simmons Lessell, MD, (1934 – 2016) was one of Mass. Eye and Ear's most well-known and beloved faculty members. Ranked among the top neuro-ophthalmologists in the world, Dr. Lessell was a gifted diagnostician and a revered educator and mentor who trained 39 neuro-ophthalmology fellows during the course of his career.

The Simmons Lessell Fellowship in Neuro-Ophthalmology was established in 2016 to recognize Dr. Lessell's extraordinary contributions to Mass. Eye and Ear, Harvard Ophthalmology, and the neuro-ophthalmology field over the course of his career.

Long-time Mass. Eye and Ear friends Diane and Al Kaneb have committed a very generous \$200,000 to this effort. In addition, five former trainees of Dr. Lessell – **Mark Borchert, MD** (Mass.

Eye and Ear); **Dean Cestari, MD** (Mass. Eye and Ear); **Robert Gise, MD** (Boston University); **Glenville March, MD** (Mass. Eye and Ear); and **Joseph Rizzo III, MD** (Mass. Eye and Ear) – have taken leadership roles by pledging \$50,000 each. Thanks in large part to this generosity, the fellowship is over 50 percent funded, with commitments totaling \$510,000. ■

Help Us Reach Our \$1 Million Goal

With your support, the endowment will enable us to provide vital funding for a clinical or research fellow in neuro-ophthalmology. Call Julie Dutcher in the Development Office at 617-573-3350 to support this initiative.

New Clinical Fellowships



The Mass. Eye and Ear Fellowship Training Programs, overseen by **Dean Cestari, MD**, offer unrivaled opportunities for trainees to evaluate and manage the most difficult clinical cases in an atmosphere that fosters professional development through teaching and research. As of July 2017, Mass. and Ear will offer two additional training opportunities:

New, One-year Anterior Segment Fellowship at Mass. Eye and Ear

Program Director: Kathryn Hatch, MD

Focus: Comprehensive training in the surgical and medical management of diseases of the anterior segment, including complex and laser-assisted refractive cataracts, anterior segment reconstruction, complex intraocular lens cases, corneal disorders, refractive surgery, and glaucoma (including minimally invasive glaucoma surgery)

New, One-year Medical Retina Fellowship at Mass. Eye and Ear Plainville/Providence/Boston

Note: This fellowship is in addition to the existing Medical Retina Fellowship at Mass. Eye and Ear, directed by Deeba Husain, MD.

Program Director: Magdalena Krzystolik, MD

Focus: Diagnosis and treatment of non-surgical retinal diseases, with emphasis on age-related macular degeneration, diabetic retinopathy, retinal vein occlusion, tumors, inflammatory diseases, and inherited retinal degenerations; limited exposure to surgical retina

Oculoplastics Fellowship Accredited by ASOPRS

The ACGME-accredited Oculoplastics Surgery Fellowship, directed by **Michael Yoon, MD**, received accreditation from the American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS). This two-year fellowship accepts fellows in the odd year cycle. **Suzanne Freitag, MD**, directs the second ASOPRS-accredited Oculoplastics fellowship at Mass. Eye and Ear.

Mary Daly Expands Training Opportunities at VA Boston

Mary Daly, MD, Associate Director for the Harvard Ophthalmology Residency Training Program at the Veterans Affairs Boston Healthcare System (VA Boston), has significantly enhanced training opportunities for Harvard and Boston University ophthalmology residents, Boston University (BU) retina and oculoplastics fellows, Harvard glaucoma fellows, and BU medical students during the last decade. As Chief of Ophthalmology, she recruited top-notch faculty, spearheaded approvals for capital improvements, and introduced new, cutting-edge technologies to the department. In turn, these patient-centered advances led to more educational opportunities for trainees in clinical care and research.

Dr. Daly is an important leader in medical education beyond the Boston area, as well. An appointed member of several committees, she helps to promote patient care, research, and training in ophthalmology; ensure that board exams for cataract are of the highest quality; and improve the external disease and cornea curriculum for trainees across the nation. Since 2012, she also has served as Chair of the Annual New England Ophthalmological Society Hecht Awards for Best Resident, Fellow, and Trainee Posters.

Major Achievements:

-
- 2005** Implements new surgical complications conference, a journal club, and a retinal imaging conference
-
- 2006** Establishes first ophthalmic simulation laboratory in the VA system nationally at VA Boston, enhancing trainee participation in quality, outcomes, and education
-
- 2007** VA Boston joins Ophthalmic Surgical Outcomes Program, opening the door for outcomes research and new research training opportunities (see page 8)
-
- 2007** Establishes the Annual Boston International Visiting Professorship in Cataract, Cornea and External Eye Diseases
-
- 2014** Collaborates with **Angela Turalba, MD**, Mass. Eye and Ear/Harvard Ophthalmology, to incorporate VA Boston into the Harvard Glaucoma Fellowship Program
-
- 2015** Introduces femtosecond laser-assisted cataract surgery to VA Boston, further expanding the exposure of trainees to new technology



Alumni Giving Society

OF HARVARD OPHTHALMOLOGY @ MASS. EYE AND EAR

We extend our grateful thanks to the 2015-2016 Alumni Giving Society members:

CHAMPION Gifts of \$25,000 or more

Robert J. D'Amato, MD, PhD	George N. Papaliodis, MD
Claes H. Dohlman, MD, PhD	Samir C. Patel, MD
Evangelos S. Gragoudas, MD	Janey L. Wiggs, MD, PhD
Joan W. Miller, MD	

VISIONARY Gifts of \$10,000 - \$24,999

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Byron S. Lingeman, MD	

INNOVATOR Gifts of \$5,000 - \$9,999

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Thaddeus P. Dryja, MD	Ronald E. Frenkel, MD	John H. Niffenegger, MD
Deborah S. Eappen, MD	Simmons Lessell, MD*	Demetrios Vavvas, MD, PhD

PIONEER Gifts of \$2,500 - \$4,999

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FRIEND Gifts of \$1,000 - \$2,499

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Elizabeth Daher Fasse, MD	Nahyoung Grace Lee, MD	Felix N. Sabates, Sr., MD
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Bradley S. Foster, MD	James McMillan, MD	Bradford J. Shingleton, MD
Suzanne K. Freitag, MD	David G. Miller, MD	Jonathan H. Talamo, MD
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Your philanthropic support drives our mission forward, providing critical support for education and research. To make a gift or explore other giving options, contact:

Julie Dutcher
Development Office

617-573-3350

Zoster Eye Disease Study Comes to Mass. Eye and Ear in 2017



With one of the largest herpes zoster ophthalmicus patient populations in the country, Mass. Eye and Ear is a participating site for the National Eye Institute-funded Zoster Eye Disease Study (ZEDS). This clinical trial will evaluate whether prolonged suppressive oral antiviral treatment with valacyclovir reduces complications of herpes zoster ophthalmicus (HZO).

James Chodosh, MD, MPH,

is the lead investigator at Mass. Eye and Ear, and patient enrollment is expected to begin in 2017. For more information, contact Xiao-Hong (Iris) Wen at Xiao-Hong_Wen@meei.harvard.edu.

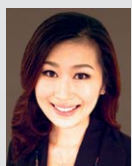


Learn More about Infectious Eye Diseases in *Eye Insights*, Mass. Eye and Ear's Clinical Newsletter

eye.hms.harvard.edu/eye-insights/5

New Insights into Thyroid Eye Disease Treatments

Researchers from Mass. Eye and Ear—including Schepens Eye Research Institute of Mass. Eye and Ear—and Boston Children's Hospital identified new mechanisms of proptosis, or bulging of the eyes, in patients with acute thyroid eye disease. The report, published online in the journal *Ophthalmology*, describes vascular growth factors that cause an abnormal proliferation of blood vessels, as well as the rare formation of lymphatic vessels, which may contribute to the dangerous swelling and inflammation that occurs in the orbits of these patients. This study opens a path to exploring non-surgical treatments for thyroid eye disease.



"Currently, oral or IV steroids and major surgery (to break the bones behind the eyes) are the only viable option to prevent severe and permanent vision loss in patients with thyroid eye disease," commented **Grace Lee, MD**, co-first author

and an oculoplastics specialist at Mass. Eye and Ear.

According to corresponding author **Leo Kim, MD, PhD**, "Our results suggest that it might be possible to treat the inflammation and swelling by stopping the blood vessels from forming and leaking fluid, or, alternatively, by finding a way to promote lymphatic vessel formation and enhance drainage of fluid."

Drug-dispensing Contact Lens Lowers Eye Pressure in Preclinical Study



In a preclinical model for glaucoma, **Joseph Ciolino, MD**, and colleagues demonstrated that a novel drug-dispensing contact lens is at least as effective, and possibly more so, as daily latanoprost eye drops

(*Ophthalmology*, September 2016). Contact lenses have been studied as a means of ocular drug delivery for nearly 50 years, yet many such lenses are ineffective because they dispense the drug too quickly. The contact lenses used in this study released the drug gradually because a thin film of drug-encapsulated polymers was added to the periphery of the lens. Previously, the researchers showed that the lens is capable of delivering medication *in vivo* continuously for one month (*Biomaterials*, 2014). Because the drug film is confined to the lens periphery, the center remains clear, allowing for normal visual acuity, breathability, and hydration. The lenses can be made with or without refractive power.

UPDATE:

VA Boston and the Ophthalmic Surgical Outcomes Program



In 2007, the Veterans Affairs Boston Healthcare System was recognized as a top VA site and was invited to participate in the Ophthalmic Surgical Outcomes Program, a national VA initiative that sought to develop pro-

protocols that could prospectively measure ophthalmic surgery outcomes in terms of safety and quality. In 2009, **Mary Daly, MD**, was one of the "clinical champions" invited to lead a pilot study on cataract surgery outcomes. Since then, surgical outcomes research at the VA Boston has exponentially grown, creating more opportunities for trainee involvement and enhanced clinical care.

Dr. Daly, **Angela Turalba, MD**, **Abhishek Payal, MD, PhD**, and other colleagues and Harvard Ophthalmology trainees have published numerous studies on cataract surgery outcomes across the VA as part of the Ophthalmic Surgical Outcomes Database (OSOD) Program. Recent studies from the OSOD include cataract surgery in patients with glaucoma (*American Journal of Ophthalmology*, 2015), age-related macular degeneration (*Invest Ophthalmol Vis Sci*, 2015), intraoperative floppy iris (*American Journal of Ophthalmology*, 2014); as well as outcomes of surgeries performed by residents as primary surgeons (*Journal of Cataract and Refractive Surgery*, 2016) and the relationship of the American Society of Anesthesiologists (ASA) classification with cataract surgery outcomes (*Journal of Cataract and Refractive Surgery*, 2016).



THE ACADEMY AT HARVARD MEDICAL SCHOOL

Every two years, a select group of physicians and scientists are accepted into The Academy at Harvard Medical School. Established to advance the education of physicians and scientists throughout the Harvard community, this prestigious educational organization fosters medical educators' career development, provides programming support, encourages innovations in curriculum, and promotes research that emphasizes teaching, learning, and assessment.

As a testament to The Academy's ability to positively transform its membership into effective leaders, former members **John Loewenstein, MD**, and **Patricia A. D'Amore, PhD, MBA**, are now senior leaders in the department (Vice Chairs for Medical Education and Basic and Translational Research, respectively). Current Academy members include **Carolyn Kloeck, MD**; **Deborah Jacobs, MD**; **Dean Cestari, MD**; **Ankoor Shah, MD, PhD**; and **Nurhan Torun, MD**.

CONTINUED FROM PAGE 3, HARVARD OPHTHALMOLOGY WOMEN RISE TO LEADERSHIP

To ensure premier clinical care for patients, **Teresa Chen, MD**, works with Dr. Miller and hospital leaders in her role as Chief Quality Officer of Ophthalmology, Mass. Eye and Ear, to develop best practices. Since 2009, she has led a team of faculty, administrators, and trainees to publish Mass. Eye and Ear's annual *Quality and Outcomes Report*, which aims to provide transparency in outcomes and raise clinical care standards across the nation.

Education

Providing a world-class education to future leaders in Ophthalmology and vision science is integral to Harvard Ophthalmology's mission. As Program Director for the Harvard Ophthalmology Residency Training Program since 2014 and Associate Director prior to that, Dr. Kloeck develops innovative tools, technologies, and training methods to raise the standards of ophthalmic education—both at Harvard Ophthalmology and around the world. Dr. Watts directs the Optometry Residency program, which is now in its sixth year.

Leaders at Harvard Ophthalmology's affiliate hospitals ensure that residents receive broad exposure to comprehensive ophthalmology and subspecialties services. Notably, **Gena Heidary, MD, PhD**, who founded and directs the BCH Pediatric Neuro-Ophthalmology Service, oversees the BCH rotation for second-year residents. Additionally, Dr. Daly, Chief of Ophthalmology and Associate Director for the Harvard Ophthalmology Residency Training Program at VA Boston, has bolstered ophthalmic training opportunities at VA Boston (see page 6).

Of the 14 clinical fellowships offered at Mass. Eye and Ear, five are directed by women. At Mass. Eye and Ear's main campus, Dr. Freitag directs the two-year ASOPRS-accredited oculoplastics fellowship; **Ambika Hoguet, MD**, serves as Associate Director for the glaucoma fellowship; and **Deeba Husain, MD**, directs the medical retina fellowship. Come July 2017, Dr. Krzystolik will direct a second medical retina fellowship, primarily at Mass. Eye and Ear, Plainville and Providence; and Dr. Hatch will direct the anterior segment fellowship at Mass. Eye and Ear, Waltham (see page 6). ■

Heartfelt Thank You to Madden Fellowship Campaign Leaders

In the 10 months since the Thomas J. Madden Fellowship in Retina at Mass. Eye and Ear was established, the campaign has raised 80 percent of its \$1 million fundraising goal.

The fellowship honors Thomas J. Madden, who passed away in December 2015, and his extraordinary commitment to Mass. Eye and Ear. Mr. Madden played a critical role in helping Mass. Eye and Ear win a patent-related case in 2009, which resulted in the landmark \$126 million judgment for Mass. Eye and Ear.

Joan W. Miller, MD; **Diane and Al Kaneb**; **Evangelos Gragoudas, MD**; and **Demetrios Vavvas, MD, PhD**, initiated the fundraising with an outpouring of generous support. Soon after, faculty in the Mass. Eye and Ear Retina Service showed their unified support, with commitments made by 100 percent of the service members (19 full-time and two part-time). The department is deeply grateful to those who have led the campaign thus far, and hope that others will be inspired to show their support as well.

Make a Gift Today

The endowment from the Thomas J. Madden Fellowship in Retina at Mass. Eye and Ear will provide critical support for a clinical or research fellow studying retinal disease. To honor Mr. Madden's memory with this long-lasting tribute, **call Julie Dutcher in the Development Office at 617-573-3350.**

Welcome New and Returning* Clinical Fellows

Cornea



Emma Davies, MD



Charisma Evangelista, MD



Reena Gupta, MD



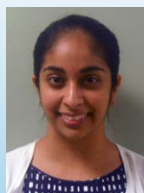
Jia Yin, MD, PhD*

Eye Pathology



Yufei Tu, MD

Glaucoma



Upneet Bains, MD



Shiraaz Rahman, MD

Inherited Retinal Degenerations



Mauricio Vargas, MD, PhD

Medical Retina



Shivani Reddy, MD



Scott Peterson, DO



Gary Yau, MD



Aditi Gupta, MBBS, MD*

Neuro-ophthalmology



Marc A. Bouffard, MD



Bart K. Chwalisz, MD



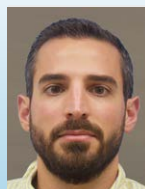
Aubrey Gilbert, MD, PhD

Ocular Immunology & Uveitis



Stephanie Llop Santiago, MD

Oculoplastics

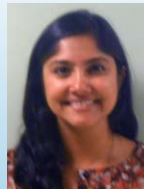


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Victoria Starks, MD

Pediatric Ophthalmology & Strabismus



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Medha Sharma, MD

Vitreoretinal



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Papakostas, MD



Safa Rahmani, MS, MD



Miin (Irene) Roh, MD, PhD



Meet the Residents

eye.hms.harvard.edu/classof2019

Elizabeth Rossin Receives Gragoudas-Folkman Award

Second-year resident **Elizabeth Rossin, MD**, received the inaugural Gragoudas-Folkman Award, which provides up to \$20,000 to support a resident research project. With this award, Dr. Rossin will work under the mentorship of **James Chodosh, MD, MPH**, to develop a novel, network-based algorithm to identify viral vaccine targets that may lead to improved vaccines. She, along with collaborators, has already developed a novel network-based algorithm to guide the rational design of vaccines against organisms, such as HIV and herpes simplex virus (HSV). Anthony Adamis, MD, a Mass. Eye and Ear alumnus and Global Head of Ophthalmology, Immunology and Infectious Diseases at Genentech/Roche, established the Gragoudas-Folkman Award in 2016, using his portion of the proceeds from the 2014 António Champalimaud Vision Award.

Miin Roh Named Alcon Research Scholar

Mass. Eye and Ear vitreoretinal fellow **Miin (Irene) Roh, MD, PhD**, was selected as the 2016 Alcon Research Scholar. Dr. Roh will work under the mentorship of **Deeba Husain, MD**, to assess the functional outcomes of patients with various stages of age-related macular degeneration (AMD). Using microperimetry, she will evaluate the visual function of a specific area of the retina and fovea and create a retinal sensitivity map. This map will provide a quantifiable way to measure the regression or progression of retinal visual function in patients with AMD. Dr. Roh hopes that this work will add to our understanding of the severity and extent of AMD and help to determine if functional testing can be used to evaluate the effectiveness of new therapeutic agents in patients with AMD.



NEOS Poster Contest Winners

Trainees at Mass. Eye and Ear and Schepens Eye Research Institute of Mass. Eye and Ear placed first, second, and third in the New England Ophthalmological Society's annual poster contest held June 2016. Congratulations to:

FIRST

Sarah Wassmer, PhD

Postdoctoral Research Fellow,
Schepens Eye Research Institute
of Mass. Eye and Ear

SECOND

Courtney Bovee, MD

Clinical Fellow, Mass. Eye and Ear

THIRD

Jonathan Lam, MD

Research Fellow, Schepens Eye Research Institute
of Mass. Eye and Ear

HONORABLE MENTION (ONE OF THREE)

Athanasios Papakostas, MD

Clinical Fellow, Mass. Eye and Ear

Grants, Awards, and Honors

The Department of Defense awarded **Joseph Arboleda-Velasquez, MD, PhD**, and co-PI **Leo Kim, MD, PhD**, a \$1.5 million grant to test the preclinical efficacy of therapies for proliferative vitreoretinopathy. **Dean Elliott, MD**; **Eleftherios Paschalis, PhD**; and **Tomasz Stryjowski, MD**, are also collaborating on this project.

Michael Gilmore, PhD, received a \$10 million grant from the National Institute of Allergy and Infectious Diseases, NIH, to lead and develop the Harvard-wide Program on Antibiotic Resistance through 2021. An important component of the Harvard Ophthalmology Infectious Disease Institute, this program has elevated Mass. Eye and Ear's reputation as a leading center for research on antibiotic resistance and development of new treatments for infectious diseases.

The National Institutes of Health granted nearly \$1.8 million over three years to **Joseph Rizzo III, MD**, to conduct preclinical research on the Boston Retinal Prosthesis with penetrating electrodes.

Teaching and Service Awards

During the Mass. Eye and Ear/Harvard Ophthalmology Residents' and Fellows' graduation ceremony held June 16, 2016, **Joan W. Miller, MD**, announced a new teaching award, and Harvard Ophthalmology residents and fellows honored four individuals for their teaching and service contributions.

New for 2016 is the Simmons Lessell Excellence in Education Award, which honors the late Simmons Lessell, MD—an extraordinary teacher and educational leader of the department for more than 30 years—and celebrates those individuals who have made profound and sustained contributions to education. The inaugural award was presented to **Robert Petersen, DMSC, MD** (pictured left), Boston Children's Hospital. According to Dr. Miller's introductory remarks, Dr. Peterson is "a man of integrity with a deep commitment to the community and society at large... well-known for his encyclopedic knowledge of ophthalmology... and for shaping the careers of innumerable students, residents, and fellows."



The ophthalmology residents also presented teaching and service awards. **Lucia Sobrin, MD, MPH**, was selected as Clinical Teacher of the Year, and **Daniel Lefebvre, MD**, as Surgical Teacher of the Year.



The residents also honored **Derek Sartanowicz, RN**, with the 2016 Resident Appreciation Award. Lastly, the Mass. Eye and Ear fellows announced **Ivana Vodopivec, MD, PhD**, as the 2016 Fellow of the Year.



Left to right: John B. Miller, MD; Karen Kinnaman, MD; Joan W. Miller, MD; Mary Miller, JD; Grace Miller; and John B. Miller, JD, LLM, PhD

Joan W. Miller, MD, Inducted into the National Academy of Medicine

Joan W. Miller, MD, the Henry Willard Williams Professor of Ophthalmology and Chair of Ophthalmology at Harvard Medical School, and Chief of Ophthalmology at Massachusetts Eye and Ear and Massachusetts General Hospital, was inducted into the National Academy of Medicine (NAM) on October 15, 2016 in Washington, D.C. Dr. Miller is an internationally recognized expert on retinal disorders, including age-related macular degeneration (AMD), retinal degenerations, and diabetic retinopathy.

The NAM is a national resource for independent, scientifically informed analysis and recommendations on issues of health. NAM serves alongside the National Academy of Sciences and the National Academy of Engineering to "address critical issues in health, medicine and related policy and to inspire positive action across sectors."

Over the last two decades, Dr. Miller and her colleagues at Harvard Medical School/Mass. Eye and Ear pioneered the development of photodynamic therapy using verteporfin (Visudyne®), the first pharmacologic therapy for AMD able to reduce and slow vision loss. The group also identified the importance of vascular endothelial growth factor (VEGF) in ocular neovascularization, forming the scientific basis of current antiangiogenic therapies for neovascular AMD. Today, these treatments are saving the sight of millions of people worldwide.

"Election to the National Academy of Medicine is one of the highest honors in medicine," said John Fernandez, President and CEO of Mass. Eye and Ear. "This underscores the tremendous contributions that Dr. Miller has made to ophthalmic medicine and science during her exceptional career."

With a current membership of over 2,000, the NAM elects no more than 70 national and 10 international members each year. New members are elected by current active members through a selective process that recognizes eminent professionals who have made major contributions to the advancement of the medical sciences, health care, and public health and who are committed to volunteer service in activities of the National Academies of Sciences, Engineering, and Medicine.

Deborah Pavan-Langston Becomes First to Receive Three Highest Honors in the Field of Cornea



Deborah Pavan-Langston, MD, FACS—Harvard Ophthalmology alumna and Professor Emeritus—received the Claes Dohlman Society Award at the Cornea Society/Eye Bank Association of America 2016 Fall Educational Symposium. This lifetime achievement award recognizes her excellence in teaching and contributions to the field of cornea and external disease.

Dr. Pavan-Langston is the first person to receive all three of the highest honors in

cornea: the Castroviejo Medal for Outstanding Contributions to the Field of Corneal and Anterior Segment Disease (American Academy of Ophthalmology), the Phillips Thygeson Plaque and Lecture (Ocular Microbiology & Immunology Group), and now the Claes Dohlman Society Award.

Before retiring in 2015, Dr. Pavan-Langston spent nearly 50 years—first as a trainee and later as a clinician scientist and faculty member—working and studying at Mass. Eye and Ear/Harvard Ophthalmology. She was the first woman to complete Harvard Ophthalmology residency training, and the first woman to complete a Cornea Fellowship at Mass. Eye and Ear, working under the mentorship of Claes Dohlman, MD, PhD. After additional training in ocular virology and uveitis, she joined Harvard Ophthalmology in 1971, and two years later, was appointed the first woman director of Mass. Eye and Ear's Cornea and External Disease Service. She attained the rank of Professor in 2009.

Internationally renowned as an authority in ocular herpetic disease, she has made seminal contributions to the department and to the broader field of ophthalmology through clinical care, research, and teaching. Her clinical and laboratory research deepened our understanding of herpetic diseases of the anterior segment and greatly improved patient care. Notably, her research helped pave the way for three FDA-approved drugs now used to treat blinding corneal herpetic disease.

A dedicated teacher for more than four decades, Dr. Pavan-Langston played a vital role teaching and mentoring trainees at all levels.

Two Harvard Ophthalmology Alumni Receive Prestigious Michels Fellowship



Following a competitive application and review process, **Athanasios Papakostas, MD**; **Aristomenis Thanos, MD**; and two other second-year vitreoretinal fellows received a 2016 Ronald G. Michels

Fellowship at the 26th annual Michaels Foundation meeting on October 14, 2016. Drs. Papakostas and Thanos are both graduates of the Harvard Ophthalmology Residency Training Program.

Dr. Papakostas (class of 2014) is a vitreoretinal fellow at Mass. Eye and Ear on the Retina Service and conducts research on the genetics of radiation vasculopathy and outcomes of proton beam irradiation for large choroidal melanomas. Prior to this fellowship, he completed a one-year medical retina clinical/research fellowship, also at Mass. Eye and Ear. Dr. Thanos (class of 2015) is a vitreoretinal fellow at William Beaumont-Associated Retinal Consultants, Royal Oak, MI. In 2012, he was awarded the Gragoudas Prize for best basic/translational paper by a Mass. Eye and Ear trainee. Dr. Thanos also is a scientific illustrator, who has designed logos for the New England Ophthalmological Society and other organizations.

Personnel Updates

FACULTY APPOINTMENTS/PROMOTIONS

Associate Professor of Ophthalmology

- **Alexandra Bowers, PhD**, Schepens Eye Research Institute of Mass. Eye and Ear
- **Suzanne Freitag, MD**, Mass. Eye and Ear

Assistant Professor of Ophthalmology

- **Kathryn Hatch, MD**, Mass. Eye and Ear

Instructor in Ophthalmology

- **Maan Alkharashi, MD**, Boston Children's Hospital
- **Corinna Bauer, PhD**, Schepens Eye Research Institute of Mass. Eye and Ear
- **Francois Lebreton, PhD**, Mass. Eye and Ear
- **Rosario Gondino-Fernandez, PhD, MSc**, Mass. Eye and Ear
- **Shrinivas Pundlik, PhD**, Schepens Eye Research Institute of Mass. Eye and Ear
- **Francesco Tecilazich, MD**, Schepens Eye Research Institute of Mass. Eye and Ear

PERSONNEL CHANGES



An Instructor in Ophthalmology at Harvard Medical School since 2013, **Xiaohong Zhou, PhD, OD**, joined the Optometry and Contact Lens Service at Mass. Eye and Ear in September 2016 after earning her OD from the New England College of Optometry with high distinction. Prior to joining the department, Dr. Zhou completed medical training and an ophthalmology

residency in China, and earned her PhD in vision science from West China University of Medical Sciences. After conducting postdoctoral research on glaucoma and retinal neovascularization at the Dean McGee Eye Institute, Dr. Zhou joined the laboratory of **James Chodosh, MD, PhD**, Mass. Eye and Ear, as a Research Associate in 2009, and was promoted to Investigator in 2013 in addition to her faculty appointment as Instructor. A member of the Harvard Ophthalmology Cornea Center of Excellence, Dr. Zhou continues to conduct research on the immunopathogenesis of adenovirus keratitis.

NEW RECRUITS



Silas Wang, MD, joined the Comprehensive Ophthalmology and Cataract Consultation Service at Mass. Eye and Ear in September 2016. A graduate of Yale School of Medicine, Dr. Wang completed his ophthalmology residency at New York University and the Manhattan Eye, Ear, and Throat Institute. Before joining Mass. Eye and Ear, he worked in private practice in New York

City and was Clinical Instructor in Ophthalmology at New York University. In addition to providing comprehensive ophthalmic care, Dr. Wang enjoys teaching and mentoring medical students and residents at Mass. Eye and Ear. He is a diplomate of the American Board of Ophthalmology, a fellow of the American Academy of Ophthalmology and a member of the American Society of Cataract and Refractive Surgery.

DEPARTURES (JUNE - SEPTEMBER 2016)

- Maggie Hymowitz, MD
- Katherine Talcott, MD
- Michael Farkas, PhD
- Jie Ma, PhD
- Xiang Werdich, MD, PhD
- Qi Zhang, MD, PhD

In Memoriam

Elliot M. Finkelstein, MD

A former Harvard Ophthalmology faculty member (1971-2006), Elliot M. Finkelstein, MD, passed away June 5, 2016. Dr. Finkelstein, a resident of Chestnut Hill, Mass., had a private practice with his daughter Macie Ellen Finkelstein in nearby

Brookline. He also saw patients at Mass. Eye and Ear, Beth Israel Deaconess Medical Center, Massachusetts General Hospital, and New England Baptist Hospital. An active member of the American Academy of Ophthalmology, Dr. Finkelstein served as President from 1998 until 1999. During his tenure, he wrote a monthly column on eye health that was distributed by the *Medical Tribune News*. He served on the Academy's Ad Hoc Committee on Eye Care, the Glaucoma 2001 National Coordinating Committee, the Council's Executive Committee and the Awards Committee. He also served as a member of the Refractive Surgery Interest Group and Membership Advisory Committee.



Mass. Eye and Ear Provides Vision Screenings for Inner-City Youth

In July and August, two teams from Mass. Eye and Ear provided vision screenings at Camp Harbor View—a summer camp for inner-city youth. **Ankoor Shah, MD, MS, PhD**, and **Kimberley Chan, OD**, led the two teams of clinicians and volunteers, which together screened more than 340 campers. These vision screenings are an important part of Mass. Eye and Ear's commitment to the community and to Harvard Ophthalmology's three-tiered mission.



Donald J. Doughman, MD



Donald J. Doughman, MD, a former Cornea Fellow at Mass. Eye and Ear (class of 1972), passed away on May 2, 2016. Dr. Doughman grew up in the small town of Bussey, Iowa, and taught music for two years before pursuing a career in medicine. After completing his ophthalmology residency, he served his military obligation as Chief Ophthalmologist at the U.S. Public Health Service Hospital in Boston, during which time he met his future wife, Carol. He then subspecialized in cornea, thus beginning his long and distinguished career in academic medicine. A leader in the field, Dr. Doughman chaired the Minnesota Department of Ophthalmology from 1979 to 1990. His passion for teaching and mentoring generations of ophthalmologists was equaled only by his passion for patient care. He performed countless surgeries and restored vision in thousands of patients. A pioneer in research with respect to corneal preservation and transplantation techniques, he became internationally known for developing a new technique for storing corneas for transplants, which is now widely used, especially in Europe. Due to Dr. Doughman's contributions, there is no longer a waiting list for patients who are candidates for corneal transplants.

Miguel Refojo, MD

Miguel Refojo, MD, a renowned and innovative scientist at Schepens Eye Research Institute of Mass Eye and Ear, passed away on July 14, 2016 after a prolonged illness. Originally from Spain, Dr. Refojo spent 40 years conducting cutting-edge research to develop sight-saving treatments. He collaborated with two renowned ophthalmologists—Charles Schepens, MD, and Claes Dohlman, MD, PhD—to develop polymer and silicone materials for retinal detachment surgery, vitreous substitutes, and drug delivery methods. A pioneer in his field, he innovated a new contact lens material that revolutionized contact lens design by allowing the manufacture of a thin optical membrane. He also developed an instrument that measures tear film evaporation from the eye, which ultimately led to our current understanding of dry eye treatments.

Upcoming Events



For upcoming events and registration information, visit

eye.hms.harvard.edu/calendar

2017

CME Ophthalmology Research Format Grand Rounds: Lotfi Merabet, PhD, OD, MPH, Mass. Eye and Ear, with Deborah Jacobs, MD, Mass. Eye and Ear, “Non-invasive brain stimulation and corneal pain”
January 5, 2017 | 8:00 - 9:00 am

CME Mass. Eye and Ear-Mass General Hospital Joint Neuroscience Grand Rounds: Michael Young, PhD, Schepens Eye Research Institute of Mass. Eye and Ear, “Translating Retinal Stem Cells”
February 2, 2017 | 8:30 - 9:30am

COE Cornea Center of Excellence Visiting Professor: Robert L. Hendricks, PhD, University of Pittsburgh School of Medicine
March 9-10, 2017 | 5:30 - 6:30pm

CME Quality Humanism and Professionalism Ophthalmology Grand Rounds: Douglas E. Brandoff, MD, Dana-Farber Cancer Institute, discusses the opioid crisis and pain
February 23, 2017 | 8:00 - 9:00am

COE Ruthanne B. Simmons Lecture: Claude F. Burgoyne, MD, Devers Eye Institute
February 28, 2017 | 5:00 - 6:00pm

CME Ophthalmology Research Format Grand Rounds: Magali Saint-Geniez, PhD, Mass. Eye and Ear, Schepens Eye Research Institute
March 2, 2017 | 8:00-9:00 am

CME Continuing Medical Education

COE Harvard Ophthalmology Centers of Excellence

eye Witness

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- Transformational research that eliminates blinding diseases
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Save the Date



**6th Military Vision Symposium on
Ocular & Vision Injury**

March 30-31, 2017 | Boston

Eye injuries sustained in war have changed and increased in number, as weapons, tactics, technology, and strategies have evolved. During this symposium, military experts, vision researchers, and ophthalmologists will discuss the public health aspects of eye injuries, as well as the physics, consequences, rehabilitation, and restoration of blast injuries.

Registration is required.

eye.hms.harvard.edu/military



**Annual Meeting
and Alumni Reunion**

June 23-24, 2017 | Boston

This two-day event—designed for Harvard Ophthalmology faculty, alumni, and trainees—showcases the latest advances in ophthalmology research and clinical care, and features the Mariana Mead Lecture and the Distinguished Achievement Award Lectures.

eye.hms.harvard.edu/annualmeeting