

# EyeWitness

Newsletter of the Harvard Medical School Department of Ophthalmology



HARVARD  
MEDICAL SCHOOL

DEPARTMENT OF  
Ophthalmology

Fall 2012/Winter 2013 #21



Joan W. Miller, MD, FARVO  
Chief and Chair

## NOTES FROM THE CHAIR

### Mass. Eye and Ear Brings World Class Eye Care to Longwood Medical Area

Our department reached an exciting clinical milestone on December 10, 2012 when we officially opened our new Mass. Eye and Ear, Longwood ambulatory care center at 800 Huntington Avenue. This full-service, state-of-the-art facility offers patients and referring physicians the best of both worlds – Mass. Eye and Ear’s renowned ophthalmic care conveniently available in the heart of Boston’s Longwood Medical Area/Mission Hill neighborhood, and in close proximity to several of our world-class HMS Ophthalmology affiliates. As a premier surgical outpatient center, Mass. Eye and Ear, Longwood also enhances the scope of our educational mission by serving as fertile training ground for residents, and the facility is rapidly becoming a fully integrated component of our residency training program.

Led by Clinical Director, Carolyn Kloek, MD, the Longwood practice is now in full swing with our team of eight physicians providing a full spectrum of adult primary and specialty eye care, as well as same day surgical care. Our new facility houses four state-of-the-art operating suites as well as technologically advanced resources for complete ophthalmic imaging and testing. Our clinicians also offer refractive surgery evaluations and expert optometry and contact lens services. A full-service optical shop is located on-site, a first for the community. The facility is readily accessible by public transportation, and attached garage parking offers added convenience for patients.

*Continues on page 4*

### Patricia A. D’Amore, PhD, MBA, FARVO Named Director of Research at Schepens Eye Research Institute

The historic and strategic unification of Mass. Eye and Ear and Schepens Eye Research Institute was enhanced further on November 1, 2012 with the appointment of Patricia A. D’Amore, PhD, MBA, FARVO to Director of Research at Schepens Eye Research Institute. Dr. D’Amore is the Charles L. Schepens Professor of Ophthalmology and Professor of Pathology at Harvard Medical School (HMS), HMS Ophthalmology Vice Chair of Basic Research, Co-director of the HMS Ophthalmology AMD Center of Excellence, and Senior Scientist and Ankeny Scholar of Retinal Molecular Biology at Schepens. As Director of Research, Dr. D’Amore serves as the senior leader at Schepens and as a member of the Mass. Eye and Ear research leadership team, reporting to HMS Department of Ophthalmology Chief and Chair, Joan W. Miller, MD, FARVO and to the Schepens Board of Directors.

Dr. D’Amore’s selection follows a rigorous, eight-month effort by an HMS-appointed search committee to identify a highly accomplished academic and scientific leader who has achieved significant success in advancing the field of vision science.

“Dr. D’Amore’s selection by an outside committee is especially gratifying given the intensity and breadth of the search and the fact that she already plays a key leadership role within the department,” noted Dr. Miller. “I am thrilled that Dr. D’Amore



Patricia D’Amore, PhD, MBA, FARVO

*Continues on page 15*

“Dr. Chodosh’s commitment to his colleagues, his profession, his science, and most importantly, his patients, is easy to see. I have every expectation that his expertise and ingenuity in the field of virology will continue to lead and stimulate vital research efforts globally as we move into the 21st century.”

– Joan W. Miller, MD, FARVO



*James Chodosh, MD, MPH*

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## James Chodosh, MD, MPH Promoted to Professor of Ophthalmology

**B**ased on his many contributions to this department and his notable breadth of achievement, James Chodosh, MD, MPH was promoted to Professor of Ophthalmology at Harvard Medical School (HMS), and named the David G. Cogan Professor of Ophthalmology in the Field of Cornea and External Disease. A pioneer in molecular virology, viral genomics, and viral epidemiology, Dr. Chodosh has established himself as a world-wide authority on ocular adenoviral pathogenesis. Considered an excellent mentor, he has an equally deserved, department-wide reputation as an outstanding surgical instructor, and as a dedicated and compassionate clinician with multiple “Best Doctor in America” ratings.

Dr. Chodosh started his medical career at Baylor College of Medicine, where he received his MD with honors in 1988. He completed his ophthalmology residency at the Cullen Eye Institute of Baylor College of Medicine, and a clinical fellowship in corneal and external diseases and surgery at the Bascom Palmer Eye Institute of University of Miami School of Medicine. His interest in virology and infectious diseases led him to complete a postdoctoral research fellowship at St. Jude Children’s Research Hospital, and later, he received an MPH with honors in Biostatistics from the University of Oklahoma. Following a stellar career at the Dean McGee Eye Institute at the University of Oklahoma, Dr. Chodosh joined Mass. Eye and Ear in 2008 as a member of the Cornea Service and an investigator in the Howe Laboratory Viral Pathogenesis Unit.

Notably, he has:

- Elucidated the mechanism by which the interaction between adenoviruses and resident corneal cells influences infection, including subsequent viral replication and expression of mediators of inflammation
- Generated the first whole genome sequence for the adenoviruses that cause epidemic keratoconjunctivitis (EKC; a severe form of “pink eye”) to elucidate why only a few adenovirus serotypes are associated with EKC while many adenoviruses can cause pink eye
- Sequenced another 30 human adenoviruses to complete the genome sequences for all known human adenoviral serotypes
- Created the first mouse model of adenovirus keratitis to facilitate novel research into the innate immune response in the cornea



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## 200+ Scientists and Clinicians Brainstorm at the 2nd International Biennial Symposium on Age-related Macular Degeneration

On September 21-22, 2012, the HMS Department of Ophthalmology hosted its second International Biennial Symposium on age-related macular degeneration (AMD), which spurred lively discussion and debate among more than 200 clinicians, researchers, and trainees in attendance. A diverse and distinguished group of AMD experts from around the world engaged in stimulating and open-ended panel discussions on a wide array of AMD topics that included RPE/Bruch's membrane/choriocapillaris, inflammation, lipids/cardiovascular disease, imaging, angiogenesis beyond VEGF, neuroprotection/regeneration, drug delivery, and neurodegenerative diseases.

The meeting drew highly favorable reviews from participants who commented on the caliber of speakers, depth of discussion, and opportunity for exchange. One participant noted, "Panel sessions were really thought-provoking and the highlight of the meeting." Another commented, "Best AMD symposium...enjoyed inclusion of other disease modalities in thinking how they might overlap with AMD pathophysiology." While a third participant noted, "I was... struck by the number of passionate physician scientists trying to solve the problem!"

The symposium format was purposely modeled after the highly successful inaugural meeting held in 2010, which began an important and intense dialogue around current AMD topics and the challenges that lay ahead. This year's symposium, co-directed by Patricia D'Amore, PhD, MBA, FARVO, Ivana Kim, MD, and HMS Ophthalmology Chair, Joan W. Miller, MD, FARVO, sought to build on this momentum.



*Open-ended panel discussion facilitated dialogue at the 2012 AMD Symposium*

Participants debated several "hot" topics during the course of the symposium. One intense discussion – and a recurring theme throughout the meeting – focused on the potential epidemiological link between lipid deposition and the development of AMD. Another point of debate centered on whether impairment of rod-mediated (dark adaptation) vision is an early change in AMD that might form the basis of an early diagnostic test for the disease. A point of discussion on which participants unanimously agreed was that the field of ophthalmology will be the epicenter for future success in genomics and gene therapy.

**"I was... struck by the number of passionate physician scientists trying to solve the problem!"**

**– Participant comment**



*2012 AMD Symposium break out session*

The unique format engaged participants in discussion and brainstorming, with the goal of building collaborations among AMD colleagues. Another unique aspect of the meeting was the participation of experts from disciplines outside of AMD whose research shed insight on other multiple target pathways that could potentially drive advancements in the field. Discussions were facilitated by a distinguished group of panelists and moderators.

Over the last two decades, a group of HMS Department of Ophthalmology clinician scientists led intensive research efforts in AMD that helped fuel a revolution in patient care, and has saved the sight of millions worldwide. In her opening remarks, Dr. Miller noted, "Collectively, we've reached important milestones in AMD medicine and science, but much work remains if we are to permanently eradicate retinal diseases like AMD. With current momentum in fields of study such as genetics, neuroprotection, and regeneration, we are poised to make surefire advances over the next decade. It's this momentum that we need to leverage, and the genesis for this meeting. Future and rapid advancements in the field will require collaboration and a multidisciplinary approach on an international scale. Our goal here is to bring together the multidisciplinary expertise of our attendees and launch the innovative ideas that take us to the next level." ■



To buoy our presence and integration with the Longwood community, Mass. Eye and Ear joined MASCO (Medical Academic and Scientific Community Organization, Inc.), a non-profit organization dedicated to enhancing Boston's Longwood Medical Area for the area's thriving population of workers (43,600), patients and students. Under MASCO's umbrella, its 26-member institutions function as a consortium to more efficiently deliver a broad range of services such as planning and development, parking and transportation (including an extensive shuttle service), collaborative purchasing, and child care. We're happy to be a part of their mission, which benefits our employees and patients who work in or traverse the Longwood Medical Area.

## Enhanced Partnerships

Among its many benefits, Mass. Eye and Ear, Longwood offers fresh opportunity to amplify the tremendous pool of talent and resources of our HMS ophthalmology affiliates and to expand collaborations that benefit patients directly. For example, as part of an innovative partnership launched in 2009, Mass. Eye and Ear provides on-site, inpatient subspecialty ophthalmic care and emergency eye trauma services to patients at Brigham and Women's Hospital (BWH). From our new Longwood base we will build this alliance to further streamline the care we provide to patients at both locations as well as our main Charles Street campus. Our new facility is already a resource for all of our

HMS affiliate physicians and for nearby medical practices whose surgeons are choosing to utilize our imaging, diagnostics and surgical equipment. Our Longwood presence also translates into better, faster communication with our referring physicians and providers. Through a series of on-site presentations to BWH physicians, and several open houses, we are continuing to reach out to the BWH referral community to promote our new facility, team of physicians (including an on-site optometrist), and enhanced capabilities, which includes an expanded consultation service.



(l to r) Longwood Clinical Director, Carolyn Kloek, MD, President, Brigham and Women's Hospital, Elizabeth Nabel, MD, Sheila Borboli-Gerogiannis, MD, FACS

Just prior to the opening of this location, Mass. Eye and Ear and Joslin's Beetham Eye Institute cemented their decades-long partnership with the formation of a formal clinical and research alliance. Our shared clinical offices will be co-located at One Joslin Place and at the new Longwood facility where I expect our Joslin colleagues to join us in the upcoming months. This important collaboration will further enhance our services, especially for patients who have diabetic eye disease. My long-standing colleague, Lloyd Paul Aiello, MD, PhD, Associate Chief, Mass. Eye and Ear, Longwood, Director at Beetham Eye Institute and Vice Chair of our Harvard Medical School Centers of Excellence, is leading this effort. This alliance is also an opportunity to unite the efforts, synergy and talent of both institutions to more rapidly advance diabetic eye research with a shared vision to eliminate blinding diseases in our lifetime.

## In Sync with Neighbors and Nature

I am confident that Mass. Eye and Ear, Longwood will be a valuable community resource. It's a first on many fronts starting with an ambitious planning, development and building process that we completed in less than two years. From the beginning, we worked closely with City of Boston officials, neighboring communities and hospitals to ensure that Longwood's "footprint" and our priorities were in sync with community needs. Throughout this process, our primary goal remained focused on bringing high quality, coordinated, and value-driven care to area residents, and to Longwood physicians and providers.

## Meet Our Mass. Eye and Ear, Longwood Clinicians



**Carolyn E. Kloek, MD**

Clinical Director, Longwood  
Specialties: Comprehensive Ophthalmology,  
Cataracts



**Zhonghui Katie Luo, MD, PhD**

Specialties: Comprehensive  
Ophthalmology, Cataracts, Cornea,  
and External Diseases



**Sheila Borboli-Gerogiannis,  
MD, FACS**

Specialties: Comprehensive Ophthalmology,  
Cataracts,  
Cornea and External Diseases



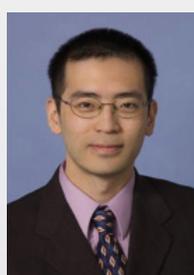
**Lucy Q. Shen, MD**

Specialties: Glaucoma, Cataracts



**Mark Bernardo, OD**

Specialties: Optometry and  
Contact Lens



**David M. Wu, MD, PhD**

Specialties: Medical Retina,  
Age-Related Macular Degeneration, Diabetic  
Retinopathy



**Ann-Marie Lobo, MD**

Specialties: Immunology and Uveitis,  
Comprehensive Ophthalmology, Cataracts



**Daniel R. Lefebvre, MD**

Specialty: Ophthalmic Plastic Surgery



**John I. Loewenstein, MD**

Specialties: Medical Retina,  
Age-Related Macular Degeneration, Diabetic  
Retinopathy, Retinal Degenerations



### Notes from the Chair, continued from page 4

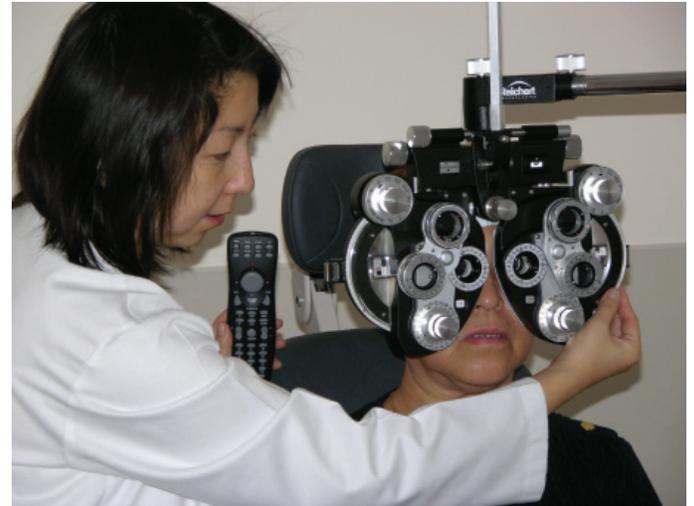
Early in this process, we gave careful thought to planning and constructing the building, which offers a welcoming environment for patients and staff, with special considerations for low-vision patients. Eco-friendly and energy efficient materials and lighting are used throughout. Large, expansive windows capture natural light while patient waiting rooms, corridors and staff lounges are located next to exterior windows to maximize daylight. High-contrast and accent colors adorn the walls, floors, and fixtures to help visually impaired visitors more easily navigate the space. Hard and soft seating areas accommodate different comfort needs and create a relaxing waiting environment. We also teamed up with our Longwood neighbor, Mass. College of Art, whose students generously loaned us some impressive artwork and sculptures that decorate the building.

### Continuing to Innovate

From an operational standpoint, we continuously strive to make our customer service and clinical processes seamless, convenient and accessible for our patients. Mass. Eye and Ear's new Clinical Operations Group is coordinating numerous efforts across all of our locations that directly benefit patients. These range from centralizing our call center for easy "single-call" appointment booking, to renovating or adding new clinical space, to behind-the-scenes improvements that have boosted our call response times and streamlined patient flow.

As a full-service outpatient facility in a small scale setting, Mass. Eye and Ear, Longwood is an ideal environment to develop or perfect protocols that will improve the patient experience. Longwood, for example, will be our first location to migrate 100 percent to an electronic paperless record system. We began this transition in 2007 when we adopted the Partner's HealthCare System Longitudinal Medical Record (LMR) to enhance patient care and connect our patients, doctors and referral network more efficiently. Our goal is to have hand-written physician notes, test results and medication history all stored in an electronic medical chart that is immediately accessible to physicians at every stage of a patient's visit. This is an exciting transformation that means faster and more efficient care with corresponding improvements in the quality of care we provide to patients.

We continue to make improvements to the LMR, which now includes digital archiving and image transmission capability. We also recently introduced our new Patient Gateway system – a key feature of the LMR – that enables fast and secure communication between patients and their doctors' office. Patients can access the system 24/7 to request appointments and prescription renewals, view lab results, set appointment reminders and talk directly with a medical staff member. So far, more than 2,300 Mass. Eye and Ear and Partners Healthcare patients have signed on to use this valuable communication tool.



*Comprehensive and Cornea specialist, Zhonghui Katie Luo, MD, PhD examines a patient.*

### Thank you!

I am confident that our new Longwood practice will help keep our clinical mission progressing at a rapid clip and on pace with the needs of a growing patient demographic. I'll sign off with a heartfelt thanks to the many staff administrators and faculty who contributed countless hours to making the Longwood facility a reality. In particular, I want to acknowledge the dedicated efforts of Drs. Kloek and Aiello, as well as Mass. Eye and Ear Chief Operating Officer, Jeffrey Pike, and Senior Project Manager, Michael Reinhart, whose leadership and guidance helped bring this enormously ambitious project to fruition in just 24 months. I also want to highlight Drs. Katie Luo, Sheila Borboli-Gerogiannis, Mark Bernardo, Lucy Shen, Ann-Marie Lobo, David Wu, Daniel Lefebvre and John Loewenstein, all of whom have joined Dr. Kloek as part of the Longwood inaugural clinical team. We look forward to providing exceptional eye care to area residents, and teaming with neighboring hospitals, referring physicians, and providers to help patients achieve the best eye health possible. ■

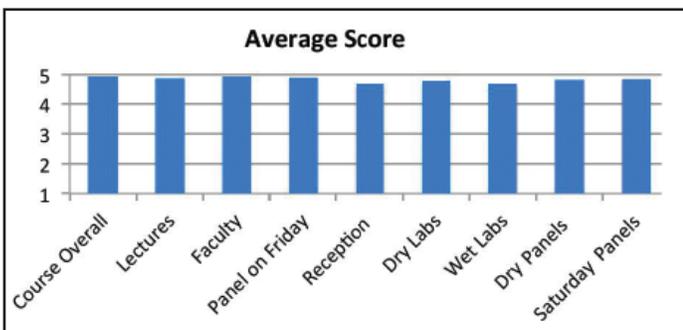
  
Joan W. Miller, MD, FARVO  
Chief and Chair

## Rave Reviews for 3rd Annual Mass. Eye and Ear Vitrectomy Course

Attracting 60 first-year retina fellows nationwide, the 3rd annual Mass. Eye and Ear Vitrectomy Course was held July 20-21, 2012. This free, two-day event offered first-year fellows an introduction to the theory and practice of vitreoretinal surgery.

This year, 27 world-class faculty members joined together in Boston to create a one-of-a-kind training experience with lectures, panel discussions, wet labs and dry labs to prepare fellows for the operating room experience during clinical fellowship. With a high faculty-to-student ratio, the course delivered a brief, but comprehensive, introduction to techniques in vitreoretinal surgery, including vitrectomy, scleral buckling, and instrumentation. Fellows also honed their surgical skills using VRMagic EYESI® virtual reality simulators, and representatives from Alcon and Bausch & Lomb assisted with demonstrations of vitreoretinal equipment, including the CONSTELLATION® Vision System and Stellaris PC.

Originating in 2010 as a one-day workshop that drew 40 attendees from across the country, the Vitrectomy Course has expanded into a day-and-a-half training seminar. Organized by Associate Director of the Mass. Eye and Ear Retina Service, Dean Elliott, MD, Director of the HMS Department of Ophthalmology Residency Training Program, John Loewenstein, MD, and Demetrios Vavvas, MD, PhD, the course has received top-notch ratings since its inauguration. Now in its third year, the popular course drew maximum attendance and nearly perfect feedback with an overall rating of 4.9 out of 5 by attendees. Dr. Elliott attributes the course success to “its emphasis on hands-on training and close interaction with faculty.”



The Vitreoretinal Course received an overall rating of 4.9 out of 5. Individual aspects of the course, such as quality of the lectures, faculty, and panel discussions, were rated a 5 (excellent) or 4 (very good) by more than 90 percent of attendees.

Of particular note, the panel discussions received high praise, and attendees agreed that the “best part was the amazing faculty.” These panel discussions brought thought-provoking and controversial issues to light, and one attendee stated, “Excellent case discussions. It is nice to see that not everyone does the same procedure for the same eye.” Enriching dialogues and healthy debate provided fodder for small group discussions and idea exchange.



Shizuo Mukai, MD, Vitreoretinal Fellowship Director at Mass. Eye and Ear

Course Directors Drs. Loewenstein, Elliott and Vavvas strive to accomplish these superb outcomes, and their efforts were recognizable. One returning faculty member remarked, “I give a lot of credit to the organizers and the many people behind the scenes that made the course so successful. It seems to improve every year.”

In addition to a rich surgical learning experience, the course gave fellows an opportunity to network with senior “giants” in the vitreoretinal field – including Steve Charles (University of Tennessee, College of Medicine); Stanley Chang (Columbia University Medical Center), Harry Flynn Jr. (University of Miami Health System); William Mieler (University of Illinois, Hospital & Health Sciences System); and others - as well as young clinicians from around the country. The event concluded with a cocktail reception and dinner at the Taj Hotel in Boston. ■



Vitreoretinal fellows honed their surgical skills using VRMagic EYESI® virtual reality simulators.

# Mass Eye. and Ear and Schepens Faculty Retreat:

## *New Collaborations, Enlightened Self-Interest*

Last March (2012), faculty from Mass. Eye and Ear and Schepens joined together at the Department's inaugural Faculty Retreat in New Castle, New Hampshire to explore opportunities for collaboration and facilitate teamwork. "In academia, people generally work for their own self interests," says Joan W. Miller, MD, FARVO, Chief and Chair of Ophthalmology. "To work with an enlightened self-interest is to work as a team because, through collaborations, a group becomes greater than the sum of its parts."

### Communication, Collegiality and Collaboration



Opening speaker Reza Dana, MD, MPH, MSc remarked that the primary goal of this first retreat was to "bring faculty together, to discuss issues of common interest, and get to know each other better." Mass. Eye and Ear and Schepens have a long history of shared faculty, resources, and an overall mission to eradicate blindness. The formal union of these institutions in June 2011

created the world's largest and most robust basic and clinical ophthalmology research enterprise.

Thus, the 2012 retreat provided the first opportunity for 100 faculty members – largely representing Massachusetts Eye and Ear and Schepens Eye Research Institute – to discuss both organizational and scientific topics relevant to the entire faculty, as well as to promote communication, collegiality and collaboration among faculty. The upcoming 2013 meeting will be held April 5 and 6, and is HMS department-wide.

To inspire innovation, the HMS Department of Ophthalmology looks to its three-fold mission of excellence

**"The unification provides a huge opportunity to significantly advance our translational goals and bring new innovations to research and medicine."**

**–Joan W. Miller,  
MD, FARVO**



*Francis Sutula, MD and  
Angela Turalba, MD*



*(l to r): Kim Fechtel, PhD; Jay Balloffet, MBA; Janey Wiggs, MD, PhD; Joan Miller, MD, FARVO, Patricia D'Amore, PhD, MBA, FARVO; Richard Masland, PhD; Reza Dana, MD, MPH, MSc; Alan Long, PhD; Eli Peli, MSc, OD*

in clinical care, research, and education. According to Dr. Miller, "These three components are inextricably linked: clinical care informs research and training; research investigations transform patient care and provide crucial training tools; and medical education creates a stimulating learning environment that brings knowledge to patient care and fuels investigations."

"This synergy underscores the importance of collaboration," says Dr. Miller. Previous cooperative successes include the development and use of Boston Keratoprosthesis, and treatments for age-related macular degeneration (AMD) and retinal degenerations. Additionally, teamwork has fostered the production of new diagnostic tools that monitor disease progression in patients with glaucoma, and has played a key role in the development of new rehabilitative tools and technologies.

According to Dr. Miller, these recent advances present "wonderful opportunities to really jump forward."

### Centers of Excellence Drive Progress Department-wide

The department continues to fuel translational science and medicine through innovative collaborations. The heart of these efforts is the expansion of the department's five disease-based Centers of Excellence and two discipline-based Institutes - the Ocular Genomics Institute (OGI) and the Ocular Regenerative



*(l to r): Suzanne Freitag, MD, Luk Vandenberghe, PhD, and Michael Yoon, MD*

Medicine Institute. The COEs and Institutes were a major focus of discussion at the meeting, with presentations from directors and faculty members from each area. All are designed to drive collaboration across the full, three-tier mission of the department by bringing together the expertise, talent and resources of our entire Harvard Medical School community and affiliates. The Institutes are directed by Eric Pierce (OGI) and Michael Young (Ocular Regenerative Medicine). Disease-based centers represent several key subspecialty areas. These include age-related macular degeneration (co-directors: Ivana Kim and Patricia D'Amore), cornea (director: Reza Dana), diabetic retinopathy (co-directors: Lloyd P. Aiello and Dean Elliott), glaucoma (co-directors: Janey Wiggs and Louis Pasquale), and vision rehabilitation and mobility (co-directors: Eliezer Peli and Mary Lou Jackson). A disease-based approach helps to identify like-minded research going on across the department by building key collaborations that link ideas, resources and people in pursuit of common goals.

In September, 2012, Bonnie Brodowski, MBA, was hired as Manager of Business and Program Development to support the program development initiatives of each Center and the Institutes. Ms. Brodowski is working with Dr. Aiello, Vice Chair for the Centers of Excellence, to fine tune strategy, goals and objectives of each Center, identify programmatic needs and resources, develop fundraising and outreach opportunities, and support branding and website resources.

## Excitement Building in 2013

Faculty attendees were delighted by the engaging presentations, lively discussion, and enthusiasm for new departmental initiatives. They left with a renewed sense of community, a jumpstart on scientific and collegial exchange, and the fortitude to advance the HMS Department of Ophthalmology as a force for innovation. While this inaugural meeting focused on facilitating the partnership between Mass. Eye and Ear and Schepens, all HMS Ophthalmology faculty will be included in future annual meetings. ■

*Special thanks go to the 2012 Retreat Planning Committee: Reza Dana, MD, MPH, MSc (committee chair); Patricia D'Amore, PhD, MBA, FARVO; Alex Bowers, PhD; Darlene Dartt, PhD; Meredith Gregory-Ksander, PhD; Neena Haider, PhD; Daniel Saban, PhD, MS; Michael Young, PhD; Ivana Kim, MD; Richard Masland, PhD; Douglas Rhee, MD; Janey Wiggs, MD, PhD; Alan Long, PhD, as well as Kim Fechtel, PhD; Joan Miller, MD, FARVO; Jay Balloffet, MBA; Janis Germagian, Joanne Peters, and Janet Coban.*

## Janey Wiggs, MD, PhD and Alumnus Rajesh Rao, MD Among Winners of NEI Audacious Goals Competition

Janey L. Wiggs, MD, PhD, the Paul A. Chandler Associate Professor of Ophthalmology and Associate Director of the Ocular Genomics Institute at Mass. Eye and Ear/Harvard Medical School, and Rajesh C. Rao, MD, a 2011 graduate of the HMS Department of Ophthalmology Residency Training Program, are two of 10 winners of the National Eye Institute's Audacious Goals challenge. The challenge was a nationwide competition that invited compelling ideas to advance vision science, and garnered a pool of nearly 500 entries.

Dr. Wiggs' winning submission, entitled "Vision BioBank — A Network of Ocular Phenotyping Centers Using Genomic and Epidemiologic Data to Promote Personalized Ophthalmology," proposed the creation of a network of biobanks that collect corresponding phenotype (physical characteristics) and genotype (genetic) data on people with certain eye diseases. These biobanks could be used for a wide range of studies, including the development of sensitive and specific gene tests that could accurately determine a person's risk for such diseases, as well as their likely response to certain therapies.



Janey L. Wiggs, MD, PhD

"It would be fantastic if sensitive and specific gene tests could be used to accurately determine disease risk and therapeutic response for common, complex, blinding diseases such as glaucoma, age-related macular degeneration, diabetic retinopathy and uveitis. Imagine that an eye exam begins with a report listing disease risks and effective therapies for each patient," said Dr. Wiggs. "Ultimately, it will be possible to identify patients at risk for blinding disease and employ effective therapeutic strategies before irreversible vision loss occurs, making it possible to maintain lifelong useful sight."



Rajesh Rao, MD

HMS Chair Joan W. Miller agreed. "Dr. Wiggs' multi-institutional 'Vision BioBank' directly addresses the next critical phase in the patient care revolution — that is, to develop a broad, deep and robust repository of patient population data so researchers around the globe can more effectively unravel genotype-phenotype connections. With this data in hand, we can more rapidly identify target pathways and develop pharmacologic therapies that mitigate or reverse the progression of disease."

John Fernandez, Mass. Eye and Ear President and CEO offered, "It's gratifying to see Dr. Wiggs among the NEI's Audacious Goals winners. The honor speaks to her vision as a researcher and dedication to improving treatment and care for patients with eye diseases, not only at Mass. Eye and Ear, but also around the world.

HMS resident alumnus (2011), Dr. Rajesh Rao, also was among the

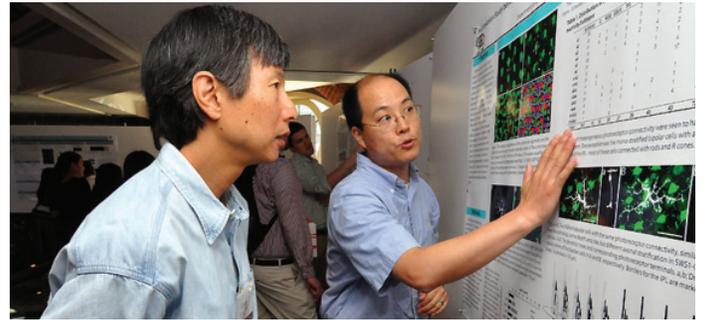
*Continues on page 18*

## Energy, Enthusiasm Mark the 2012 HMS Annual Meeting & Alumni Reunion

**M**ore than 250 HMS Department of Ophthalmology faculty, alumni, and trainees gathered for an exciting four-day festival of events that included the Annual Meeting and Alumni Reunion, celebratory dinners, graduation, and a trip to Fenway Park. On Thursday, June 7, 2012 a special celebration was held at Schepens Eye Research Institute in honor of the 50th year anniversary of the Schepens Library and Archives, and the Centennial celebration of founder, Dr. Charles Schepens. Special guests included Claire Schepens-Delori (daughter), honored alumna Alice McPherson, MD, and Lionel Chisholm, MD, current president of Schepens International Society.

HMS Ophthalmology Chair, Dr. Joan Miller, kicked off the Annual Meeting on Friday morning at the historic Liberty Hotel with highlights of the year's memorable milestones. This was followed by scientific lectures given by 12 HMS faculty showcasing their current investigations and expertise in glaucoma, cornea, retina, genetics, immunology, and oculoplastics. The meeting's Poster Contest drew 54 impressive entries, with 30 on display. Poster contest winners were Houman Hemmati, MD, PhD, and Sotiria Palioura, MD, PhD, for the best clinical poster, while Chenying Guo, PhD, and Harry Sweigard, PhD, garnered the award for best basic research poster.

In the afternoon, Dr. Miller presented the department's final Distinguished Alumni Professional Achievement Award to Dr. Alice R. McPherson, Professor of Ophthalmology, Baylor College of Medicine, and Founder/President of the Retina Research Foundation. Beginning in 2013, the department will recognize the lifetime achievements of alumni and faculty with the HMS Clinical and Research Distinguished Achievement Awards. Inaugural honorees in 2013 will be Eliot L. Berson, MD (clinical



*Clint Makino, PhD and Yong N. Li, PhD converse during the 2012 poster session*

and François Delori, PhD (research). The day also included the traditional Mariana Mead Lecture – this year, given by alumna Dr. Joan M. O'Brien, Chair of the Department of Ophthalmology at the University of Pennsylvania, who presented "Genetics in Uveal Melanoma." Attendees concluded their busy day with a reception and dinner celebration at the beautiful Four Seasons Hotel.

On Saturday, Dr. Miller began alumni meeting events by introducing the department's 2012 resident graduates, and followed with her traditional State of the Department update. Representatives from the ten quinquennial graduating classes (1962 through 2007) presented on a wide range of topics in research, patient care and medical training. The day held many opportunities for alumni to reconnect with friends and former colleagues from near and far; the guest roster included four international alumni returning from Canada, South Africa, Serbia, and Colombia. Graduation ceremonies for residents and fellows were held Saturday afternoon in Meltzer Auditorium. ■



See page 18 for details on our upcoming 2013 Annual Meeting & Alumni Reunion.

## Cornea Center of Excellence Kicks off Inaugural, Biennial Scientific Retreat

The Cornea Center of Excellence hosted its first scientific retreat on December 14 and 15, 2012 at the American Academy of Arts and Sciences in Cambridge, Mass. The inaugural symposium, directed by Reza Dana, MD, MPH, MSc, the Claes H. Dohlman Professor of Ophthalmology at Harvard Medical School (HMS), united 94 HMS clinicians, researchers and trainees. This forum encouraged scientists to exchange ideas and explore current topics and findings in cornea research.

“It was truly remarkable to have nearly all of the HMS faculty and trainees involved in corneal research together for two days, sharing current research endeavors, and brainstorming new questions to ask as well as methods for answering them,” commented Dr. Dana, director of the Harvard Cornea Center of Excellence. “We are all very much looking forward to the future collaborations that are developing from this retreat.”

Corneal diseases and injuries affect the vision of over 300 million people worldwide. With the ultimate goal of shrinking the timeline for sight-saving treatments, the retreat provided an important opportunity for clinicians and scientists to interact and collaborate to bridge the gap between basic and clinical research. Prosperous interdisciplinary collaborations were formed that focused on diseases such as dry eye, corneal dystrophy, infection, allergies, and injuries due to sports, chemicals or trauma suffered on the battlefield.

Given the complexity of the cornea and ocular surface, the scope of research is vast. Distinguished clinicians and researchers representing Mass. Eye and Ear/Schepens Eye Research Institute, Brigham and Women’s Hospital, Boston Children’s Hospital, Massachusetts General Hospital, and Harvard Medical School presented research on a wide array of cornea topics spanning multiple disciplines. The scientific program included research themes such as ocular surface; transplantation and stem cells; immunology and microbiology; stromal and endothelial pathobiology; and imaging, drug delivery and devices.

The meeting drew highly favorable reviews from participants who commented on the high caliber of the speakers’ presentations, depth of discussion, and opportunity for exchange. Additionally, attendees were pleased that the retreat provided new insights into current clinical and laboratory research devoted to the cornea and a didactic experience for trainees; it successfully created a foundation for future collaborations within the Harvard community and built links between the exciting new information and the numerous disease entities that afflict this portion of the eye.

The retreat was organized by Pablo Argüeso, PhD; James Chodosh, MD, MPH; Joseph Ciolino, MD; Reza Dana, MD, MPH, MSc; Darlene Dartt, PhD; Ilene Gipson, PhD; Pedram Hamrah, MD; and Ula Jurkunas, MD. ■

### Growth Spurt in the Cornea Community

The cornea community at Harvard has grown significantly in recent years and continues to expand – today, there are more than 100 MDs and PhDs actively engaged in cornea and ocular surface research. Current research focuses on stem cell therapy, treatment of corneal diseases, and methods to protect the surface of the eye from infections and dry eye disease. Pilot projects are planned that will manipulate cells to reverse cell degeneration, cultivate stem cells for corneal transplants, and target white blood cells on the eye’s surface to cure conjunctivitis and allergies. Of particular note, the Cornea Center of Excellence has been responsible for seven FDA investigational new drugs (INDs) in the past five years and 49 ongoing clinical and translational studies (more than 90 percent are investigator-initiated).



## Ashley Campbell, MD



Born in Baltimore, Maryland, Ashley majored in Molecular Biophysics and Biochemistry at Yale University, and graduated, *magna cum laude* with Honors. During her undergraduate years, Ashley worked under the guidance of Dr. Michael Caterina at Johns Hopkins, which led to a co-authored publication on thermoregulatory responses in mice (*Neuroscience Letters*, 2005). An active leader in community service, Ashley was President of the Yale chapter

of the Unite for Sight organization and played an instrumental role in reviving the chapter; she travelled to North Thailand and successfully set up eye clinics and distributed over 1,200 eyeglasses. In 2007, she enrolled at Johns Hopkins University School of Medicine and conducted research with Dr. Richard Semba on the impact of nutritional status on the morbidity and mortality of children in Southeast Asia; this work yielded 13 peer-reviewed papers, of which an impressive seven are first-authored. She interned at the World Food Programme in Rome, Italy to pursue some of this research. In 2011, she received her MD and recently completed an internship at the Osler Medical Training Program.

## Xi Chen, MD, PhD



A Chinese native, Xi completed her undergraduate education in Physiology and Biophysics from Peking University in Beijing, China where she completed a thesis on the production of human insulin in transgenic tobacco and tomato; this work resulted in two patents issued. In 2001, she enrolled at the Johns Hopkins University School of Medicine where she pursued neuroscience research for her doctorate. Under the guidance of Dr.

David D. Ginty, Xi explored various signaling molecules during neuronal maintenance and regeneration and created mouse models allowing specific chemical-genetic control of gene activity. This work yielded several publications, including a first-author paper in *Neuron*. Favoring a medical education in which to integrate her research background, Xi matriculated into the HST program at Harvard Medical School, where she worked with Dr. Christopher A. Walsh to study the role of cerebrospinal fluid during neural development. She received her MD *cum laude* in 2011 and recently completed an internship in the Department of Surgery at Mass General Hospital.

## Catherine Choi, MD, MSc

Catherine joined the HMS residency program as a graduate of Johns Hopkins University, where she received both her BA and MSc with General and Departmental honors in Neuroscience. Working in Ted Dawson's lab, she wrote her master's thesis on the role of isolation of molecular targets for LRRK2 in Parkinson's disease. Her work was supported with several fellowships, and led to a publication in Human Molecular Genetics. She gained teaching experience here and was elected to Phi Beta Kappa. The recipient of multiple honors, including The National Society of Collegiate Scholars Merit Award and The Emily and Thomas



Meren Award in Neuroscience, she was also the Becker Family Fund Scholar in Neuroscience. Catherine matriculated at Harvard Medical School in 2007 and quickly became the President of the Student Interest Group in Neurology. She graduated in 2011 with her MD and two first-author papers on keratomileusis (corneal surgery that changes the eye's refractive state). Most recently she completed an internship in

Internal Medicine at Mass General Hospital. Catherine is fluent in Korean, French and English, and also has an intermediate knowledge of Spanish and German.

## Aubrey Gilbert, MD, PhD



Aubrey received her Bachelor's degree with distinction from the University of Virginia, where she completed a thesis in conservation genetics and also conducted research on Alzheimer's disease at the Mayo Clinic. She has received numerous awards and honors. To name one highlight: after college, she attended the University of Cambridge in the UK as a Bill and Melinda Gates Foundation

Scholar, receiving a Natural Science Tripos II in the History and Philosophy of Science. Following Cambridge, she earned a PhD in Neuroscience at the University of California, Berkeley in 2007. A National Science Foundation Fellow, her doctoral research examined perceptual discrimination in neurologically healthy individuals and in patients following callosotomy or stroke. She has published several articles, book chapters, and posters, has won awards for outstanding and innovative teaching in neuroscience and neuroanatomy, and has also given invited lectures and talks. Aubrey came to Mass. Eye and Ear after completing an internship in Internal Medicine at Kaiser Permanente in San Francisco and being inducted into the UCSF Gold-Headed Cane Society last year.

## Tafadzwa Muguwe, MD, MSc



Born and raised in Zimbabwe, Tafadzwa received a full scholarship to attend Swarthmore College, where he graduated Phi Beta Kappa with a major in Biology. During college, he was a member of Sigma Xi research society, and at graduation, received the Ivy Award, which is presented by the faculty to a senior demonstrating outstanding leadership, scholarship and contribution to the college community. He subsequently

matriculated at Oxford University as a Rhodes Scholar, where he obtained Master's degrees in Integrated Immunology and Global Health Science. In 2007, he entered the HST Program at Harvard Medical School and carried out research examining the role of human SET protein in HIV infections. Since 2008, Tafadzwa has been a resident tutor in Pre-medicine and Sophomore Academic Advising in Cabot House at Harvard College. Tafadzwa joined the HMS residency program with the intention of practicing ophthalmology in Zimbabwe.

## David Solá-Del Valle, MD



Born in Germany and raised in Puerto Rico, David received his BA, *magna cum laude*, with high honors in biochemical sciences, from Harvard University in 2005. His senior honors thesis on structural biology was awarded a Thomas T. Hoopes Prize. After graduation, David continued this research at the European Institute of Oncology in Milan, Italy before matriculating at Columbia University for medical

training in 2006. The next year, he travelled to Senegal where he created a medication-tracking computer system under the umbrella of the Millennium Villages Project. Following his third year in medical school, David was selected for a prestigious Doris Duke Clinical Research Fellowship, which facilitated his research of urinary NGAL as a possible biomarker for various nephropathies. David completed six – and published five – different projects in nephrology, and won the 2011 Louis Gibofsky Memorial Prize and the Alfred Steiner Award. Additionally, at graduation, David was awarded the 2011 Aura Severinghaus Award for academic achievement and the Behrens Memorial Prize in Ophthalmology. With teaching experience in neuroanatomy and anatomy, David received an MD, and was elected into the Alpha Omega Alpha Honor Medical Society. He then completed an internship in internal medicine at Mass General Hospital, and presented his work with Dr. Teresa Chen on glaucoma at ISIE/ARVO 2012. David is fluent in English, Spanish, Italian and French.

## Katherine Talcott, MD



Katherine majored in the History of Science at Harvard College and graduated, *magna cum laude*, with high honors; subsequently, she was elected as a member of Phi Beta Kappa. During her undergraduate years, she worked under the supervision of Dr. Jonathan Sears at the Cole Eye Institute, where she explored oxidative stress, angiogenesis on the eye, and protein function in retinal cells. In 2005, Katherine received a

Public Interest Careers Fellowship and joined the Angiogenesis Foundation, which led to two co-authored publications. Upon graduating, Katherine matriculated at the University of California, San Francisco School of Medicine in 2007. Here, she was awarded a Doris Duke Clinical Research Fellowship and collaborated with Dr. Jacque Duncan to image retinal degeneration longitudinally in patients who had been treated with neuroprotective factors. This research culminated in a first-author publication in *IOVS*. A member of Alpha Omega Alpha Honor Medical Society, Katherine received her MD in 2011. She completed an internship at Brigham and Women's Hospital, where she elected to spend one month abroad working in South Africa.

## Aristomenis Thanos, MD



A native of Greece, Aristomenis (Aris) received his MD from the National and Kapodistrian University of Athens Medical School in 2006. After two clinical rotations during medical school at Mass. Eye and Ear and the Wilmer Eye Institute, Aristomenis decided to complete his postdoctoral research fellowship in the Angiogenesis Lab at Mass. Eye and Ear. Here, working under the direction of Dr. Demetrios Vavvas,

Aristomenis investigated the role of AMP-dependent kinase (AMPK) – an enzyme related to cellular regulation – in the eye. His paper, “Evidence for Baseline Retinal Pigment Epithelium Pathology in the Trp1-Cre Mouse,” published in the *American Journal of Pathology*, was awarded the 2012 Gragoudas Prize for the best basic/translational paper by a Mass. Eye and Ear trainee. Following his fellowship, Aristomenis completed an internship in Internal Medicine at Metrowest Medical Center.

## Optometry Resident: Matt Goodman, OD



Matt received an Associate in Science in Pre-Professional Studies from Sheridan College in Wyoming in 2006, where he was honored by the Dean as Life Sciences Student of the Year. Matt joined the HMS optometry residency program as a 2012 graduate of Pacific University, where he received a BS in Vision Sciences and an OD with high distinction. He is the recipient of several awards, including a Dean's

Scholarship and the Peg Gilbert Award – awarded to students of exceptional scientific merit. During the past year, Matt has participated in external rotations at three different sites including the Lexington VA Medical Center in Kentucky, the Eye Care Associates in Nevada, and Bascom Palmer Eye Institute in Florida. At these sites, Matt completed primary care exams, including slit lamp and fundus exams, and experienced a wide range of complex case presentations across the spectrum of acute and chronic ocular diseases. Matt is the department's third Optometric Resident.

## Eliot L. Berson, MD Receives Visionary Award from Foundation Fighting Blindness

**D**r. Eliot L. Berson, the William F. Chatlos Professor of Ophthalmology, Harvard Medical School (HMS) and Director of Harvard's Berman-Gund Laboratory for the Study of Retinal Degenerations at Mass. Eye and Ear was honored with the prestigious Visionary Award from the Foundation Fighting Blindness (FFB) during its Boston *Dining in the Dark* event in June, 2012. The award was presented by Mr. Gordan Gund, Chairman of the Board of the FFB.

Under Dr. Berson's leadership and with the support of the FFB and the National Eye Institute, the clinical and research team in the Berman-Gund Laboratory discovered the first treatment for adults with retinitis pigmentosa, namely vitamin A palmitate combined with an omega-3-rich oily fish diet and lutein, that can add up to 20 additional years of vision for patients who start this regimen by age 40. Patients, who would be expected on average to go blind by age 60 without treatment, now can look forward to seeing to age 80 or beyond.

During the "Dining in the Dark" event, guests were served and ate in complete darkness for 30 minutes to gain a unique insight into the lives of the blind. Visually impaired servers, who were specially trained for the dinner and used a system of ropes and



*2012 Foundation Fighting Blindness Visionary Awardees, Dr. Eliot L. Berson and Governor Deval Patrick*

stanchions as their guides, shared their experience and helped guests navigate this insightful journey. Also recognized for their role in advancing the Massachusetts biotechnology and medical research communities were Massachusetts Governor Deval L. Patrick and Joshua S. Boger, PhD, founder of Vertex Pharmaceuticals, an international company headquartered in Cambridge, MA. ■

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## Claes H. Dohlman, MD, PhD Awarded International Gullstrand Gold Medal



**O**ne of Mass. Eye and Ear's leading clinician scientists, Dr. Claes H. Dohlman, has been honored once again for his pioneering work in the treatment of cornea disease. Long considered the founder of modern corneal science, and the innovator of the world's most successful and widely used artificial cornea, the Boston Keratoprosthesis (KPro), Dr. Dohlman recently traveled to Stockholm, where the Swedish

Medical Society presented him with the highly esteemed Gullstrand Gold Medal on October 22, 2012. This international prize is awarded only once every decade to an ophthalmologist whose research has contributed significantly to the field of vision science and ophthalmic treatment.

The Gullstrand Medal was created to honor Allvar Gullstrand, the Swedish ophthalmologist who won the Nobel Prize in 1911 for research on the eye's light refraction properties and his invention of, or contributions to, many optical devices still in use today, including the slit lamp and the binocular, indirect

ophthalmoscope. Previous Gullstrand Medal honorees have included Professor Alfred Vogt, Zurich (slit lamp microscopy), Sir Stewart Duke-Elder, London (glaucoma, text books), Professor Hans Goldmann, Bern (instrumentation), Sir Harold Ridley, London (intraocular lenses) and Dr. Robert Machemer, Duke University (vitrectomy).

"Given the association with Dr. Gullstrand's name and achievements, as well as the accomplishments of previous awardees, this is truly the most prestigious of ophthalmological awards in Europe," said Dr. Dohlman. "It is an enormous honor to receive the Gullstrand Medal."

Invited to give a lecture to the Gullstrand Medal nominating committee prior to the award ceremony, Dr. Dohlman spoke on "Artificial Corneas – Fact or Fiction?" in which he described the decades-long research effort that led to the development of the Boston KPro artificial cornea. Carried out through an extensive, multidisciplinary partnership between Harvard's ophthalmic research community and researchers at MIT, development of the Boston KPro has entailed a highly collaborative effort engaging the expertise of faculty in biomaterials, bioengineering, optics, inflammation, bacteriology, glaucoma, retinal detachment, plastics and contact lenses. Since 2002, more than 7,000 patients in the United States and 52 countries worldwide have received a Boston KPro implant. ■

### Patricia D'Amore continued from cover...

has accepted this highly strategic and collaborative role as we strive to bolster our presence and visibility within the Harvard community and throughout the world.”

Dr. D'Amore has distinguished herself as an astute investigator, dedicated teacher, and gifted administrator who brings nearly three decades of scientific accomplishment and leadership to her new role. She takes on the leadership reins at Schepens at a very critical juncture in the department's history as Mass. Eye and Ear and Schepens integrate resources, build out research programs and translational capabilities, expand facilities, and position the HMS Department of Ophthalmology as a world-leading center of excellence in genomics and gene therapy research.

As an internationally recognized expert in vascular growth and development, Dr. D'Amore's investigations led to a deeper understanding of the molecular basis of eye diseases and helped form the foundations of vascular targeting therapies. Her research uncovered important physiological roles of vascular growth factors and yielded crucial insight into the safe use of antiangiogenic therapies.

Dr. D'Amore's new role also reflects her stature as a standout teacher, mentor and role model. To date, more than 50 pre-doctoral students and postdoctoral fellows have benefited from her extraordinary coaching and thoughtful mentorship. For her efforts in training future leaders in research, she was honored in 2006 with the A. Clifford Barger Excellence in Mentoring Award at HMS.

From 2001 until 2011, Dr. D'Amore served as co-chair of the Program in Development in Angiogenesis, Invasion & Metastasis

at the Dana Farber/Harvard Cancer Center. At Schepens, she was appointed Associate Director of Research in 2002, and assumed the role of Co-Director of Research in 2009. She founded the Boston Angiogenesis Meeting, now in its 14th year, as a forum for presenting new findings and promoting collaboration, understanding, and advancement in angiogenesis research. More recently, she was named HMS Ophthalmology Vice Chair of Basic Research and Co-Director of the AMD Center of Excellence at HMS.

**“Over the last 15 years, Dr. D'Amore's consummate leadership capabilities and scientific achievements have influenced and shaped Schepens' visibility and rank as a world class ophthalmic research institution. She brings outstanding credentials to this role.”**

**– Kennett F. Burnes  
Chair, Schepens Board of Directors**

Dr. D'Amore received her PhD in biology from Boston University in 1977, and went on to conduct postdoctoral research at Johns Hopkins University School of Medicine. In 1981, she joined Boston Children's Hospital where she conducted pioneering bench and translational research under the mentorship of Dr. Judah Folkman. She joined Schepens in 1998 as a Senior Scientist and, that same year, rose in rank to Professor of Ophthalmology (Pathology) at HMS. ■

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### Spotlight: James Chodosh continued from page 2...

In addition to his basic science and translational successes, Dr. Chodosh is committed to restoring vision to his patients who suffer from corneal blindness, specifically those with infectious and neoplastic ocular disorders. Working closely with Boston Keratoprosthesis (KPro) inventor, Dr. Claes Dohlman, Dr. Chodosh is leading a team of HMS researchers to advance the Boston KPro design and to improve post-operative management of the device by regulating immune responses.

Dr. Chodosh promotes the Boston KPro world-wide, and has performed artificial cornea implantation surgery in Israel, India, Italy, and England. Since FDA clearance in 1992, Boston KPro has dramatically increased the success of corneal implantation and is now used in 53 countries. Dr. Chodosh continues to move forward with the development of an inexpensive Boston KPro for use in underprivileged countries, as well as the design for a titanium Boston KPro for patients with severe autoimmune ocular surface diseases.

Dr. Chodosh is the Fellowship Director for Mass. Eye and Ear's Cornea and Refractive Surgery Service. He continues to allocate significant time to teaching and mentoring, and has contributed extensively to the fundamental growth of the department's academic programs and the success of its students. His teaching in the laboratory and clinic has been recognized throughout his career, and nine of his former fellows now hold academic positions. Dr. Chodosh is a member of Harvard's Virology Program where he guides trainees pursuing a PhD in the field of virology. Recognized as a 2010 ARVO Gold Fellow Dr. Chodosh has authored over 175 peer reviewed manuscripts, chapters, editorials, and abstracts, and is the recipient of multiple honors, including an AAO Senior Achievement Award, a AAO Secretariat Award, and four awards from Research to Prevent Blindness. ■

## A Lifelong Contribution: Earl Seale, MD

Former Mass. Eye and Ear ophthalmologist Earl Seale, MD, who died in 2006, had two passions. He was devoted to his wife, Alice Davis Seale, who passed away this year at the age of 99. And he was devoted to Mass. Eye and Ear, which was the centerpiece of his professional life for more than four decades. A faculty member with the Harvard Medical School Department of Ophthalmology through the mid 1980s, Dr. Seale provided surgical treatment and trained residents at Mass. Eye and Ear, while also maintaining a private practice. After Mrs. Seale's death, it was announced that the couple had bequeathed half of their estate to Mass. Eye and Ear. Valued at \$500,000, the gift was designated for research on age-related macular degeneration (AMD), which Dr. Seale himself developed late in life.

"Mass. Eye and Ear meant everything to him," recalled Kathy Sparrough, Dr. Seale's niece by marriage. "So this gift makes complete sense, given what he and my aunt were passionate about."

Dr. Robert Hughes agreed. An internist at Massachusetts General Hospital, he cared for both Dr. Seale and his wife, and was not surprised by their generous contribution to Mass. Eye and Ear. "Earl was very committed to the Infirmary," he said.

"He spent his whole career there. Because Alice was a nurse, involvement in the medical world was really a major focus for both of them."

Originally from Mississippi, Dr. Seale completed his medical degree at Tulane Medical School in New Orleans by the age of 23. He began his residency with the Harvard Medical School Department of Ophthalmology at Mass. Eye and Ear in 1939, later serving with the U.S. Army in Panama during World War II as an ophthalmologist. He returned to Mass. Eye and Ear after the war, specializing in the surgical treatment of cataract disease. In addition to teaching at Harvard Medical School and Boston University Medical School, Dr. Seale maintained a private practice in general ophthalmology.

His approach to patients was unfailingly kind, according to Dr. George Garcia, who was a resident at Mass. Eye and Ear when he met Dr. Seale. "Earl had a kind of Southern personality," explained Dr. Garcia. "He was kind of courtly and pleasant. He wasn't just objective or scientific with his patients. He liked to understand them more completely. His patients loved and admired him, and they got good care."

It was perhaps Earl Seale's devotion to his patients that first impressed the woman who would marry him when they were both 60. By that time, Alice Davis had a medical career of her own at

Boston University, becoming one of the first visiting nurse professionals. Niece Kathy Sparrough speculated that it was Dr. Seale's kindness that won her aunt's heart. "He would always see his patients, whether they could pay or not. That meant a lot to her."

From his vantage point of training under Dr. Seale, and later taking over Dr. Seale's Bay State Road practice upon his retirement, Dr. Garcia witnessed the older physician's lifelong commitment to ensuring excellent ophthalmic care for every patient. "Those were the days, long before Medicare took full effect, when private practice ophthalmologists who wanted to maintain staff privileges at the Mass. Eye and Ear had to spend at least half a day each week at the hospital without compensation, and Earl was among them. The attending physicians trained the residents,

supervised clinical rotations and surgery, and provided coverage for emergencies. It was a big commitment, because most of them continued in that role until they turned 65."

"But it wasn't a one-way thing," Dr. Garcia added. "Just as it is now, Mass. Eye and Ear was a special place, always at the leading edge of ophthalmology. Earl made his contributions in a very quiet sort of way. But I know he believed it was an honor to serve there."

Of the Seale's final contribution, HMS Ophthalmology chief and chair, Dr. Joan W. Miller, said that Mass. Eye and Ear's research into AMD will be greatly strengthened by the gift. "Someday we will repay their generosity by finding a cure," she added. ■

*"Just as it is now, Mass. Eye and Ear was a special place, always at the leading edge of ophthalmology. Earl made his contributions in a very quiet sort of way. But I know he believed it was an honor to serve there."*

*— Dr. George Garcia*



*Front row (l to r): Drs. Carl C. Johnson, David G. Cogan, Brendan D. Leabey. Standing (l to r): Drs. Mablon T. Easton, Garrett L. Sullivan, Albert E. Sloane and Earl S. Seale.*

## Generous Alumni Philanthropy Empowers Department's Mission Year-Round

Generous donations from 91 Alumni Giving Society members totaled \$484K in fiscal year 2012, helping to support the vital work of trainees and faculty across the HMS Ophthalmology campus. Since the Society was launched in 2010, annual contributions of outright gifts have increased by more than 60 percent.

HMS Ophthalmology chief and chair, Dr. Joan W. Miller noted, "The significant increase in contributions over the years speaks volumes about the generosity and commitment of our alumni and faculty to advance our efforts, whether it's to provide seed funding for research, launch a new lectureship, or expand resident education. Society members empower our three-fold mission year-round and we're very grateful for their philanthropy."

Dr. Miller also acknowledged the significant efforts of Dr. Joseph Rizzo, Director of Alumni at HMS Ophthalmology, whose commitment to strengthening alumni ties has helped boost visibility and philanthropy to the department.

Now in its fourth year, the Alumni Giving Society recognizes individuals who make annual gifts of \$1,000 or more to the department within the fiscal year (October 1 – September 30). Gifts are tax deductible and may be unrestricted or used to support one of our numerous programs.

To learn more, contact Melissa Paul at [Melissa\\_paul@meci.harvard.edu](mailto:Melissa_paul@meci.harvard.edu) or call 617-573-4168.

### *A resounding thank you to our FY12 Society members:*

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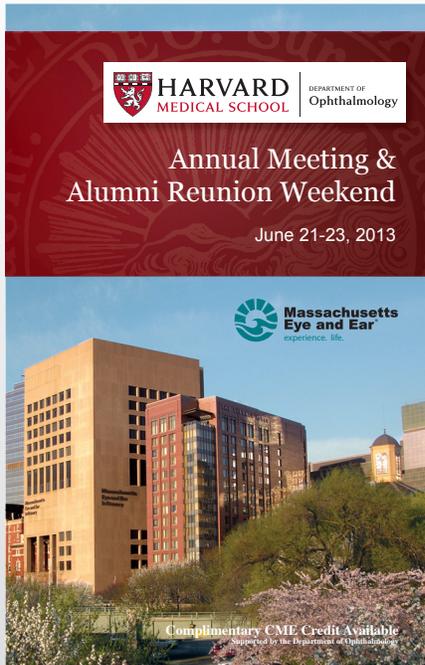
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## 2013 HMS Ophthalmology Annual Meeting & Alumni Reunion Weekend



**Please join us for the 2013 Harvard Medical School/ Mass. Eye and Ear Ophthalmology Annual Meeting and Alumni Reunion Weekend, June 21-23.**

**All current faculty, residents, clinical and research fellows, and alumni of these groups are invited to attend this exciting three-day event of scientific exchange and celebration!**

**Friday, June 21:** The weekend celebration kicks off at Boston's Liberty Hotel where the HMS Department of Ophthalmology's Annual Meeting features faculty presentations spanning basic, translational, and clinical research as well as the annual Poster Contest featuring research by current trainees within the Department. HMS Associate Clinical Professor of Ophthalmology, Cynthia Grosskreutz, MD, PhD, will deliver this year's keynote Mariana Mead Lecture. Tours of Mass. Eye and Ear and Schepens Eye Research Institute will be offered in the afternoon. The day concludes with a reception and dinner celebration at the beautiful Four Seasons Hotel.

**Saturday, June 22:** Representatives from our 10 honorary quinquennial alumni classes (1963 – 2008) will deliver lively presentations, and we will honor the accomplishments of Eliot L. Berson, MD and François Delori, PhD as the inaugural honorees of the HMS Distinguished Achievement Awards in Clinical Care and Research, respectively.

**Sunday, June 23:** Guided tours of Fenway Park and The Institute of Contemporary Art (Boston) will be available. Reservations are required and space is limited.

**Register Today: [www.MassEyeAndEar.org/AlumniReunion/register](http://www.MassEyeAndEar.org/AlumniReunion/register)**

**Questions?** Please call the Development Office at 617-573-3345 or email [Alumni\\_Reunion@meei.harvard.edu](mailto:Alumni_Reunion@meei.harvard.edu).

Hotel accommodations are available at a reduced rate of \$279/night plus tax (through 5/21/13) at the Liberty Hotel (866-507-5245), or \$179/night plus tax (through 6/7/13) at the Holiday Inn, Beacon Hill (617-742-7630). Make sure to mention "Mass. Eye and Ear Annual Meeting/Alumni Reunion."

*CME credit is available, supported by the HMS Department of Ophthalmology.*

### Audacious Goals Winners continued from page 9...

10 selected for his proposal "An Audacious Goal: Reprogramming the Retina." The objective of his project was to directly reprogram easy-to-isolate skin or blood cells or cells already in the body, such as in retinal scar tissue, to functional retinal cells using gene therapy and other techniques to enable repair strategies for degenerative retinal diseases. Dr. Rao – the youngest recipient and only trainee to be selected an Audacious Goals winner – said he was "humbled to be in the same company as my former teacher, Dr. Wiggs, as well as other senior faculty and a department chairman who were selected winners." Dr. Rao's submission, in part, involved ideas he developed as a resident while doing research in the laboratory of Dong Feng Chen at Schepens Eye Research Institute/Mass. Eye and Ear. He is currently a vitreoretinal surgery fellow at Washington University School of Medicine in St. Louis and The Retina Institute, St. Louis, Mo.

In the fall, Dr. Rao will be joining the faculty of the Department of Ophthalmology and Visual Sciences at W.K. Kellogg Eye Center in Ann Arbor, Michigan. As Assistant Professor, Dr. Rao will be the first recipient of the NEI-funded K12 mentored clinician scientist award at the University of Michigan.

Each winner received a \$3,000 prize plus travel expenses to attend the NEI Audacious Goals Development Meeting on Feb. 24-26, 2013, at the Bolger Conference Center in Potomac, Md. Winners presented their ideas at the meeting, which included about 200 vision researchers, patient advocates, ophthalmologists, and optometrists from the United States and abroad. NEI staff and members of the National Advisory Eye Council will finalize and publish a set of the most compelling audacious goals for the institute and the broader vision research community to pursue over the next decade. ■

## Ophthalmology Grand Rounds

Grand Rounds are held every Thursday from 8:00 - 9:00 am in the Meltzer Auditorium, 3rd Floor, Mass. Eye and Ear and simulcast to the Karp 11 conference room at Boston Children's Hospital. Continuing Medical Education credit is available. A monthly list is posted at [www.MassEyeAndEar.org/for-professionals/ophthalmology](http://www.MassEyeAndEar.org/for-professionals/ophthalmology).

### Invited Grand Rounds Speakers:

**March 28, 2013:** Lucy Shen, MD, Mass. Eye and Ear

**April 11, 2013:** James Chodosh, MD, MPH, Mass. Eye and Ear

## Upcoming Events

*The HMS Department of Ophthalmology sponsors an extensive array of special lectures and courses. For details, please consult the Ophthalmology Education section at [www.MassEyeAndEar.org](http://www.MassEyeAndEar.org).*

*For a complete listing of Schepens events please visit <http://www.schepens.harvard.edu/events-a-seminars/events-and-seminars.html>.*

### Longwood Medical Area Ophthalmology Conferences

**April 12, 2013:** Speaker TBA, Joslin Clinic, 3rd floor

**May 3, 2013:** Speaker TBA, Boston Children's Hospital, Karp12

**June 14, 2013:** Kelli Dyer, DO, Joslin Clinic, 3rd floor

### Pediatric Ophthalmology Visiting Professor Lecture Series

Boston Children's Hospital  
(video link to Mass. Eye and Ear)

**May 15, 2013:** Donald Mitchell, MD, Dalhousie University, Nova Scotia

**November 6, 2013:** Marilyn Miller, MD, University of Illinois, Chicago

### 28th Annual Biennial Cornea Conference

**October 18 & 19, 2013**

Starr Center, Schepens Eye Research Institute

### Simmons Lessell Festschrift

**May 25, 2013**

NEW

This educational celebration honors Simmons Lessell, MD and features presentations by past fellows.

### Cornea Center of Excellence Research Seminar Series

Schepens Eye Research Institute,  
2nd floor conference room

**April 19, 2013:** Ilene Gipson, PhD,  
Schepens Research Institute

**May 17, 2013:** Bruce Ksander, PhD,  
Schepens Research Institute

**June 21, 2013:** Sunil Chauhan, DVM, PhD,  
Schepens Eye Research Institute

### New Frontiers in Corneal Research

Mass. Eye and Ear, Meltzer Auditorium

**April 10, 2013:** Pedram Hamrah, MD,  
Mass. Eye and Ear/Schepens and  
Reza Dana, MD, MPH, MSc. Topic:  
Immunology of Dry Eye Disease

**June 12, 2013:** Sarkis Soukiasian, MD,  
Lahey Clinic and Andrew Taylor, MD,  
Boston University School of Medicine.  
Topic: Ocular Immune Privilege

### Cornea Visiting Professor Lecture Series

Mass. Eye and Ear, Meltzer Auditorium

**April 18-19, 2013:** Claes H. Dohlman  
Visiting Professor: Jonathan Lass,  
MD, Charles I. Thomas Professor and  
Chairman, Department of Ophthalmology  
& Visual Sciences, Case Western Reserve  
University

### Ocular Genetics and Genomics Symposium

**October 21, 2013**

NEW

Starr Center, Schepens Eye Research Institute

Course directors: Janey Wiggs, MD, PhD, Eric Pierce, MD, PhD and Luk  
Vandenberghe, PhD

This one-day course will explore recent genetic- and genomics-based advances in the area of inherited eye disease and their impact on the care of patients and their families. Modeled after the AMD symposium format with open-ended panel discussions, presentations will review risk factors for common complex eye disorders such as AMD, glaucoma and diabetic retinopathy, as well as disorders caused by highly penetrant mutations such as inherited retinal degenerations, optic atrophy and strabismus. Discussion also will center on new methodologies for gene-based testing, therapeutics and issues of ethics.

**June 13-14, 2013:** Carol Karp, MD,  
Professor of Clinical Ophthalmology,  
University of Miami School of Medicine

### Chandler Grant Glaucoma Symposium

Mass. Eye and Ear, Meltzer Auditorium

**May 18, 2013:** Fellows of the Chandler  
Grant Society are invited to a symposium  
from 8:00 am to 12 noon.

### Annual Harvard Intensive Cataract Surgical Training Course for Second- Year Residents

Mass. Eye and Ear, Meltzer Auditorium

**June 1-2, 2013:** Course Directors: Sherleen  
Chen, MD and Roberto Pineda II, MD

### Pediatric Ophthalmology and Strabismus Course

Mass. Eye and Ear,  
Meltzer Auditorium

NEW

**July 13, 2013**

A one-day preparatory course for Boston  
University Medical Center and HMS  
Ophthalmology residents.

### Department of Ophthalmology 2013 Annual Meeting & Alumni Reunion

**June 21-23, 2013**

### Department of Ophthalmology Residents and Fellows Graduation

**June 27, 2013, 4:00 pm ceremony**

## 4th Annual Mass. Eye and Ear Vitrectomy Course

Mass. Eye and Ear, Meltzer Auditorium

July 19-20, 2013

Course Directors: Dean Elliott, MD, John Loewenstein, MD, and Demetrios Vavvas, MD, PhD

## Strabismus Fall Festival

Mass. Eye and Ear, Meltzer Auditorium

November 2, 2013

Through case-based panel discussions and lectures, this one-day symposium will focus on techniques and advances in strabismus surgery and pediatric ophthalmology.

NEW

## Awards, Grants, and Other Honors

**Peter Bex, PhD** has been selected as a recipient of a 2012-2013 HMS Young Mentor Award.

**James Chodosh, MD, MPH** received a research agreement award from Alcon Research for his project, "Mouse Adenovirus Keratitis," in the amount of \$176,000.

**Joseph Ciolino, MD** was awarded a \$250,000 Research to Prevent Blindness Career Development Award, payable over the next four years. Dr. Ciolino also

received \$25,000 as the recipient of the 2012 Cornea Center of Excellence Fellowship Shore Scholars in Medicine Award.

**Kip Connor, PhD** is a recipient of the HMS Excellence in Tutoring Award.

**Kip Connor, PhD**, received a new supplement for his R01 Grant, "Complement Mediated Neovascularization in Retinopathy" as well as a Janssen Research & Development grant in the amount of \$136,585 for his project: "hUTCs in the Retina."

Congratulations to the following HMS faculty members who received 2012 AAO Achievement Awards: **Dean Cestari, MD; Pedram Hamrah, MD; Lois Smith, MD, PhD; and Deborah VanderVeen, MD.**

**Reza Dana, MD, MPH, MSc** will be Keynote Speaker at the Biennial Meeting of the European Society of Ophthalmology held in Copenhagen, Denmark in June, 2013.

**Reza Dana, MD, MPH, MSc** won a four year, \$2.3 million cooperative agreement award with the Department of Defense: "Safety and Efficacy of Bevacizumab in High-risk Corneal Transplant Survival" in addition to a Research to Prevent Blindness Senior Scientific Award in the amount of \$150,000.

**Dean Elliott, MD** was awarded the Crystal Apple Award from the Young Physicians group of the American Society of Retina Specialists for teaching and mentorship.

**Aaron Fay, MD** was inducted into the highly prestigious Orbit Society. He joins an elite group (30 members worldwide) of surgeons dedicated to the understanding and treatment of orbital disease.

**Anne Fulton, MD and Reza Dana, MD, MPH, MSc** achieved ARVO Gold fellow status in 2013.

Mass. Eye and Ear second year residents, **Ramez Haddadin, MD and Danielle Trief, MD, MSc** are 2013 ASCRS Foundation Resident Excellence Award winners. They each will receive a travel grant, complimentary registration and hotel accommodations for the ASCRS Symposium & Congress in April, 2013.

## Digital Journal of Ophthalmology Now PubMed Listed

The Digital Journal of Ophthalmology, Mass. Eye and Ear's open-access, peer-reviewed, online ophthalmology journal, was accepted for inclusion in MEDLINE®, the premier bibliographic database of the U.S. National Library of Medicine (NLM) last year and began appearing in PubMed searches in February 2013.

Journals accepted to MEDLINE undergo a rigorous review process by the Literature Selection Technical Review Committee – a National Institutes of Health-chartered committee. The primary consideration in selecting journals for indexing is scientific merit, which includes such factors as validity, importance, originality and contribution to the field. Journals must also demonstrate a high level of quality, credibility, and objectivity related to their peer review process and ethical guidelines."

"We are honored to see the Digital Journal of Ophthalmology included among the stellar journals accepted into MEDLINE," said Dr. Carolyn Kloek, Editor in Chief of DJO. "Inclusion in PubMed searchers further establishes DJO as a journal of growing prominence in the field of Ophthalmology and is a major milestone for this journal."

"This achievement is a reflection of the remarkable efforts of DJO's editorial team," said HMS Ophthalmology Chair, Dr. Joan W. Miller. "Compared with traditional print journals, DJO is ahead of its time. It stands out because it is a free, web-based journal accessible to anyone with Internet. By being indexed in PubMed the DJO will reach a new level as a global resource."

Articles from MEDLINE indexed journals are more likely to be viewed and cited by academicians around the world. Users may access MEDLINE and search selected DJO articles at [www.ncbi.nlm.nih.gov/pubmed](http://www.ncbi.nlm.nih.gov/pubmed).

Composed of renowned clinicians and scientists of Harvard Medical School's Department of Ophthalmology as well as prominent ophthalmologists and researchers from around country and internationally, the DJO editorial team is excited that this online resource is moving into the mainstream of ophthalmic literature. Congratulations to DJO editorial staff: Carolyn Kloek, Editor in Chief; Aaron Savar, Associate Editor; Ankoor Shah, Associate Editor; and Thomas Kozachek, Managing Editor as well as the entire DJO editorial board.



**Carolyn Kloek, MD** has been selected as a Department of Ophthalmology Scholar at Mass. Eye and Ear. Scholar funds provide salary support to select academic clinicians and clinician scientists. Dr. Kloek plans to continue developing an on-line curriculum for medical students and assess its effectiveness, establish a resident-as-teacher curriculum, and advance the surgical curriculum.

**Pedram Hamrah, MD** received a study agreement award from Allergan, Inc. in the amount of \$78,800 for his project, "Corneal Immune Response in Dry Eye Disease."

Third-year resident, **Rachel Huckfeldt, MD, PhD**, was selected to attend the 7th Annual Heed Foundation Residents Retreat in October, 2012.

The following members of the Department of Ophthalmology made *Boston* magazine's 2012 "Boston Top Docs" listing: **Reza Dana, MD, MPH, MSc; C. Stephen Foster, MD, FACS; David Hunter, MD, PhD; Ernest Kornmehl, MD; Joan W. Miller, MD, FARVO; Joseph Rizzo, III, MD; Bradford Shingleton, MD; and David S. Walton, MD.**

Congratulations to our **Seniors and Chief Resident** on their success in the San Francisco Match process:

- **Ramez Haddadin, MD:** Cornea Fellow, Mass. Eye and Ear
- **John Miller, MD:** Vitreoretinal Fellow, Mass. Eye and Ear
- **Mrinali Patel, MD:** Vitreoretinal Fellow, Cornell University
- **Gargi Vora, MD:** Cornea Fellow, Duke University
- **Peter Veldman, MD:** Cornea Fellow, Devers Eye Institute, Portland, Oregon

**Deborah Jacobs, MD** was accepted to the Academy at HMS.

**Tatjana Jakobs, MD** received the Research to Prevent Blindness Dolly Green Special Scholar Award in the amount of \$25,000. Dr. Jakobs will focus her research on the causes of optic nerve death in glaucoma and the role that astrocytes play in optic nerve damage.

**Ula Jurkunas, MD** was selected a 2013 ARI Young Investigator Grant recipient for Corneal/External Disease.

**Ann-Marie Lobo, MD,** received a grant for more than \$400,000 from AbbVie,

Inc. for her work entitled, "A Multicenter Study of the Efficacy and Safety of the Human Anti-TNF Monoclonal Antibody Adalimumab as Maintenance Therapy in Subjects Requiring High Dose Corticosteroids for Inactive Non-infectious Intermediate-, Posterior-, or Pan-uveitis." She also received two new clinical study agreement awards from AbbVie, Inc., for her work: "A Multicenter Study of the Efficacy and Safety of the Human Anti-TNF M10-877" (\$459,000) and "A Multicenter Study of the Efficacy and Safety of the Human Anti-TNF M13-327" (\$557,700).

**Lotfi Merabet, OD, PhD,** received a \$68,119 supplement to his NEI R01 grant, "Audio Based Navigation in the Blind," to encourage diversity in health related research. This supplement will fund an accessible, inclusive, and unique educational opportunity for a blind graduate student to help develop accessible technology for the blind using tactile graphics, information technology, and cognitive neuroscience. He also received a new grant award from the Alden Trust in the amount of \$15,000 for the project, "How the Brain Re-wires Itself in Cortical Visual Impairment."

On November 11, 2012, **Joan W. Miller, MD, FARVO** delivered the LXIX (69th) Edward Jackson Memorial Lecture at the AAO Annual Meeting in Chicago, IL.

Dr. Miller was only the second woman to present this prestigious lecture since its inception in 1944. During her presentation entitled, "Age-Related Macular Degeneration Revisited: Piecing the Puzzle," she discussed how age-related macular degeneration (AMD), a leading cause of blindness, has evolved over recent decades. A full report appears in the January 2013 issue of the *American Journal of Ophthalmology*.

Subsequent to her lecture, Dr. Miller was selected to receive the Cless Best of the Best Award.

**Joan W. Miller, MD, FARVO** was elected to the Academia Ophthalmologica Internationalis (AOI), one of the most prestigious international academic organizations in ophthalmology with an emeritus and active membership that spans 33 countries. Dr. Miller is the second American woman to be elected to the 38-year-old organization, which limits active membership to 73 individuals.

**Roberto Pineda II, MD** received a new Harvard Catalyst pilot grant award in the amount of \$21,477 for his project, "Early Detection of Corneal Ectasia through *in vivo* Brillouin Imaging."

Mass. Eye and Ear Research Fellow in Ophthalmology, **Matthew Ramsey, MS, PhD,** received a F32 fellowship award grant in the amount of \$47,114 from the NIH for his project entitled, "Polymicrobial Dynamics in Transfer of Vancomycin Resistance to MRSA."

**Jaya Rajaiya, PhD** is the recipient of a new award from the New England Corneal Research Transplant Fund in the amount of \$27,200.

**Douglas Rhee, MD** received \$75,775 along with a new clinical trial agreement from AqueSys, Inc. for his project, "A Prospective, Multicenter Clinical Trial Designed to Evaluate the Safety and Performance of the AqueSys Microfistula Implant in Subjects with Refractory Glaucoma."

Mass. Eye and Ear Vitreoretinal Fellow, **Dimitra Skondra, MD,** was named the 2012 Alcon Clinical Research Scholar. This award supports a certified or board-eligible subspecialty fellowship candidate during a one-year structured clinical and research development program under mentorship of a senior faculty member.

**Paolo Silva, MD** was awarded a 2013 CIMIT Young Clinicians Award (\$50,000) and an Eleanor and Miles Shore 50th Anniversary Fellowship for Scholars in Medicine through the Beth Israel Deaconess Medical Center.

**Lucia Sobrin, MD, MPH**, received an R01 grant from NIH in the amount of \$370,575 for the project, "Multi-Ethnic GWAS of Diabetic Retinopathy: Enhanced Power Using New Methods."

**Demetrios Vavvas, MD, PhD** was awarded an R21 grant from NIH in the amount of \$203,542 for his project Necroptosis and Neuroprotection in AMD.

Mass. Eye and Ear Research Fellow in Ophthalmology, **Ariel Weinberger, PhD**, received a F32 fellowship award grant in the amount of \$49,214 from the NIH for the project entitled, "The Evolutionary Dynamics of Plasmid Uptake in Pathogenic Bacteria."

**Janey Wiggs, MD, PhD** received an R01 grant for her project entitled, "The NEIGHBORHOOD: POAG Heritable Overall Operational Database," in the amount of \$364,049 from the National Eye Institute.

In July, **Research to Prevent Blindness** awarded a grant of \$110,000 to Mass. Eye and Ear to support research into the causes, treatment and prevention of blinding diseases. **Joan W. Miller, MD, FARVO** will be directing the research

## Staff Updates

Congratulations to the following staff on their HMS Appointments:

**Joseph Ciolino, MD**, Mass. Eye and Ear, Assistant Professor of Ophthalmology

**Patricia D'Amore, PhD, MBA, FARVO**, Charles L. Schepens Professor of Ophthalmology

**Dean Elliott, MD**, Mass. Eye and Ear, Associate Professor of Ophthalmology

Dr. **Elliott** also was named Stelios Evangelos Gragoudas Professor of Ophthalmology

**Suzanne Freitag, MD**, Mass. Eye and Ear, Assistant Professor of Ophthalmology

**Simmons Lessell, MD**, Mass. Eye and Ear, Distinguished Chandler Professor of Ophthalmology

**Eric Pierce, MD, PhD**, Mass. Eye and Ear, Solman and Libe Friedman Associate Professor of Ophthalmology

**Nurhan Torun, MD**, Beth Israel Deaconess Medical Center, Assistant Professor of Ophthalmology

**Deborah VanderVeen, MD**, Boston Children's Hospital, Associate Professor of Ophthalmology

**Janey Wiggs, MD, PhD**, Mass. Eye and Ear, Paul Austin Chandler Associate Professor of Ophthalmology

### New Recruits and Changes:

**Yewlin Chee, MD** will be Chief Resident and Director of the Ocular Trauma Service at Mass. Eye and Ear for the Academic Year 2013-2014.

**Iryna Falkenstein, MD** will join the Mass. Eye and Ear full-time staff of the Glaucoma Service in September, 2013. Dr. Falkenstein is presently a Glaucoma Fellow at the University of North Carolina.

**Deeba Husain, MD** will join the Mass. Eye and Ear full-time staff of the Retina Service in May, 2013, succeeding Daniel Esmaili, MD as site director of the Retina Consultants practice. Dr. Husain is currently director of the Retina Service and Associate Professor of Ophthalmology at Boston University School of Medicine.

**Brian Song, MD** will join the Mass. Eye and Ear full-time staff of the Glaucoma Service in July, 2013 as a clinician and K12 recipient. Brian is currently a Glaucoma Fellow at the Jules Stein Institute at UCLA. His research is in the use of telemedicine in the diagnosis and evaluation of glaucoma. He will be working with Lloyd Paul Aiello, MD, PhD and Louis Pasquale, MD, FARVO.

## Service

In conjunction with the Benjamin Franklin Institute of Technology, Mass. Eye and Ear launched a new five-week program in October for students enrolled in the Institute's Ophthalmic Assistant program. In January, 2013, students completed their externships at Mass. Eye and Ear where they learned to apply their clinical skills. **Carolyn Shea** and **Shakhsanam Aliyeva** are the main contacts for the program, and **Blair Wong**, Chair of the Ophthalmic Assistant program at the Institute, helped make this initiative possible.

More than \$260K was raised through the **Mass. Eye and Ear/Schepens Eye Research Institute Night for Sight** annual fundraiser. The main event was held in Palm Beach, FL on November 30, 2012 and included a Neiman Marcus fashion show, entertainment by American Idol

finalist Ayla Brown, and guest of honor Connor Boss, who is a Miss Florida USA finalist suffering from Stargardt Disease, a hereditary blinding eye disorder. The fundraiser was reported in the *Palm Beach Daily News*.

## Alumni News

Mass. Eye and Ear Resident (class of 2012), **Yao Liu, MD**, was named a 2012 American Society of Cataract and Refractive Surgery Foundation Resident Excellence Winner. Dr. Liu recently began a Glaucoma Fellowship at the University of California Davis in Sacramento, CA.

Alumnus and Dean of the Keck School of Medicine of University of Southern California, **Carmen A. Puliafito, MD, MBA**, and **Joel Schuman, MD, FACS**, former Mass. Eye and Ear glaucoma fellow and currently Chairman of the Department of Ophthalmology at the University of Pittsburgh, were two of five winners of the 2012 António Champalimaud Vision Award for their role in the invention and development of optical coherence tomography (OCT) imaging technology. Dr. Puliafito completed his residency and fellowship in ophthalmic pathology and vitreo-retinal diseases and surgery at Mass. Eye and Ear.

Former HMS faculty member, **Santa Jeremy Ono, PhD** was appointed on October 23, 2012 as the 28th President at the University of Cincinnati (UC). Dr. Ono is the first Asian-American to serve as UC's chief executive and one of only a few Asian-Americans to serve as president of a major research institution in the United States. Dr. Ono also serves as Professor of Pediatrics within UC's College of Medicine and Professor of Biology in the McMicken College of Arts and Sciences.

## Press Time

**Retina Specialist Advances Her Field – and the Women in It: February 20, 2013** (*MIT News Magazine*) Massachusetts Institute of Technology alumna (class of 1980), Joan W. Miller, MD, FARVO, discussed how her MIT education is helping her to advance the field of retina research, as well as gender equality in ophthalmology.

**Potential New Targets for Treating Retinitis Pigmentosa: September 6, 2012** (*Ophthalmology Times eReport*) Research conducted by Demetrios Vavvas, MD, PhD, in the angiogenesis laboratory at

Mass. Eye and Ear and including Joan W. Miller, MD, FARVO identified the mode of cone photoreceptor cell death in an animal model of retinitis pigmentosa. The study further identified the receptor interacting protein kinase pathway as a potential target for developing treatment for vision loss in patients with retinitis pigmentosa.

**What Your Eyes Say About Your Health: October 15, 2012** (*Boston.com*)

Sherleen Chen, MD, Director of the Comprehensive Ophthalmology Service at Mass. Eye and Ear, was quoted in the latest “Daily Dose” on the seven different health issues that can be addressed during an eye exam.

**A Need to Know the Worst News You Will Ever Hear: December 2, 2012**

(*CBS News*) Doctors, including Evangelos Gragoudas, MD discuss the pros and cons of genetic testing for people who may be at a higher genetic risk from an incurable disease such as ocular melanoma (class 2) or Huntington’s disease.

**Development of New Corneal Cell Line Provides Powerful Tool: December 27, 2012** (*Science Codex*)

A research team led by Ula Jurkunus, MD has developed two first-of-their-kind models for human corneal endothelium. These new developments will allow scientists to study the human corneal endothelium more reliably, opening the door to the development of regenerative therapies that could reduce the need for corneal transplantation in the future.

**Battling a Bacterial Threat: January 2, 2013** (*Harvard Gazette*)

Features Michael Gilmore, PhD, who organized and leads the Harvard-wide Program on Antibiotic Resistance. The group, which explores strategies against drug-resistant bugs, is taking a diversified approach to meet the challenge of antibiotic resistance, including methicillin-resistant *Staphylococcus aureus* (MRSA). Last May (2012), Dr. Gilmore’s lab announced it had decoded the genome of the 12 known VRSA strains in the United States.

**Boston Eye Group Among First to Offer Femtosecond Laser-Assisted Cataract Surgery in New England: January 16, 2013** (*WICU*)

Samir Melki, MD, PhD, of Mass. Eye and Ear and Harvard Medical School is among the first eye surgeons in New England to perform surgery with a new FDA market-cleared laser system: the OptiMedica Catalys Precision Laser System. This new system combines a femtosecond laser, 3D imaging, sophisticated software and other innovative



The **2012 Mass. Eye and Ear Quality and Outcomes** report was released October, 2012. This is Mass. Eye and Ear’s second combined quality and outcomes report that documents clinical and surgical outcomes data for key ophthalmology procedures.

To read the report, go to [masseyeandear.org/about-us/quality-measures/quality\\_publications/](http://masseyeandear.org/about-us/quality-measures/quality_publications/)

features that make the cataract procedure highly customized, gentle and more precise than manual surgery.

The Ophthalmic Images, “Choroidal Osteomas,” taken by **Lucy Young, MD, PhD, FACS** and colleague were used on the cover of the January 2013 issue of *JAMA Ophthalmology* (Vol. 131, No. 1).

**Best Glaucoma Treatments Still a Puzzle: February 18, 2013** (*WebMD, Medline Plus*) Louis Pasquale, MD, FARVO commented on research that examined how glaucoma treatments can minimize visual disability, while maintaining patient satisfaction.

**Study: Most Radiologists Don’t Notice a Gorilla in a CT Scan:** February 19, 2013 (*Washington Post* online) reported on recent research conducted by **Jeremy Wolfe, PhD**, Head of the Visual Attention Lab at Brigham and Women’s Hospital and co-authors who demonstrated the phenomena of “inattention blindness.” A forthcoming paper will be published in the journal *Psychological Science*.

**Could Google Glass Hurt Your Eyes? A Harvard Vision Scientist and Project Glass Advisor Responds:** March 4, 2013 (*Forbes* online) As a consultant for the Google Glass team, **Eli Peli, MSc, OD** discusses the safety and comfort of heads-up displays, video see-through devices, and optical see-through devices, including Google Glass.

**Audio Based Virtual Reality Simulator:** March 2013 issue (*Journal of Visualized Experiments (JoVE)*). **Lotfi Merabet** and colleagues are featured in this video-based article, which describes a virtual environment software program that is designed to improve navigation skills in blind people. Highlighted in this Month in *JoVE*, the video was produced and narrated by **Wendy Chao, PhD**, a member of the HMS Department of Ophthalmology Communications Office and features editor of *JoVE*.

## In Memoriam

Former HMS/Mass. Eye and Ear ophthalmology fellow, **Chin Wing Chu, MD** of New York passed away May 1, 2012. Dr. Chu was the Medical Director of the Eye-Bank for Sight Restoration since 1982, Associate Director at St. Luke’s-Roosevelt Hospital Center, Attending Surgeon at the Manhattan Eye, Ear & Throat Hospital, and Associate Clinical Professor of Ophthalmology at Columbia University. In 2004, the Eye Bank Association of America awarded Dr. Chu the Paton Award in recognition of his contributions to the advancement of eye banking. Dr. Chu is survived by his wife, Gloria, his son Robert and brothers Naitan and Fred.

**Dr. Marvin F. Kraushar** passed away August 16, 2012 at the age of 74. Raised in Brooklyn, N.Y., Dr. Kraushar was a retina specialist, who contributed to many institutions during his lifetime, including Beth Israel Deaconess Medical Center (Chief of Ophthalmology), the Interfaith Medical Center in New York City, the University of Medicine and Dentistry of New Jersey (Clinical Professor of Ophthalmology), and the Mount Sinai School of Medicine (Associate Clinical Professor of Ophthalmology). The eye surgeon for the New Jersey Devils, he was also Director of the Retina Center of New Jersey. Dr. Kraushar is survived by his wife, Gaytha.

**Dr. Thomas M. Richardson** passed away on Oct. 10, 2012 at the age of 78 at Rutland Regional Medical Center. Dr. Richardson was an Ophthalmologist at the Mass. Eye and Ear and Circle Eye Care in Rutland and Brandon. He was also a published glaucoma research scientist. Dr. Richardson is survived by his wife, Dianna H., his son, Kevin, his daughter, Sheryl, his brother, William, his sisters, Mary Ann Clark and Louise, six grandchildren and a host of nieces and nephews.

# EyeWitness

Newsletter of the Harvard Medical School  
Department of Ophthalmology



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## SAVE THE DATES

### Harvard Medical School Department of Ophthalmology 2013 Annual Meeting & Alumni Reunion Weekend

#### Friday, June 21

Annual Meeting  
Schepens Starr Center  
185 Cambridge Street, Boston, MA

#### Saturday, June 22

Alumni Reunion Meeting  
Mass. Eye and Ear  
243 Charles Street, Boston, MA

#### Sunday, June 23

Guided tours of Fenway Park and the Institute  
of Contemporary Art

#### Register Today!

[www.masseyeandear/AlumniReunion/register](http://www.masseyeandear/AlumniReunion/register)  
*See page 18 for details.*

### 4th Annual Mass. Eye and Ear Vitreotomy Course

July 19-20, 2013

Course Directors: Dean Elliott, MD, John Loewenstein,  
MD, and Demetrios Vavvas, MD, PhD

Designed exclusively for first year retina fellows,  
this course is a unique and comprehensive workshop  
covering the theory and practice of vitreoretinal surgery.  
The course combines didactics, video, simulation lab,  
and wet lab under the direction of a group of eminent  
international faculty in a setting with a low student-to-  
teacher ratio.

Tuition is free and includes course materials. Registration  
is required and must be received by **June 28, 2013**. A  
fully refundable deposit is required to hold a space.

Register at [www.MassEyeAndEar.org/VRcourse](http://www.MassEyeAndEar.org/VRcourse)