



Eyewitness

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NOTES FROM THE CHAIR

HMS and Mass. Eye and Ear Ophthalmology Broadens Funding Supports for Clinician Scientists



Joan W. Miller, MD
Chief and Chair

Our department has a long tradition of sustaining the research and clinical innovations of its clinician scientists. Dr. Edward Reynolds, co-founder of Mass. Eye and Ear with Dr. John Jeffries, introduced cataract surgery to New England. Dr. Claes Dohlman, emeritus professor and former chair of the department, developed the cornea subspecialty field and, in later years, developed and popularized the Boston Keratoprosthesis. More recently, Evan Gragoudas and I developed photodynamic therapy, the first pharmacologic treatment for neovascular AMD. In collaboration with our colleagues Lloyd Paul Aiello, Tony Adamis, Pat D'Amore, Robert D'Amato, Lois Smith and George King, we identified VEGF as a key factor in ocular angiogenesis, and helped develop anti-VEGF therapies for AMD, diabetic retinopathy and retinal vein occlusion. As a leading

continues on page 3

Celebration Honors the Miller and Gragoudas Legacy with New HMS Chair

On February 28, 2011, Harvard Medical School (HMS), the Department of Ophthalmology, families, and friends celebrated the investiture of Evangelos S. Gragoudas, MD, as the first Charles Edward Whitten Professor of Ophthalmology. The professorship was established to honor the accomplishments of Chief and Chair, Joan W. Miller, MD, and is one of several HMS Ophthalmology professorships created in 2010.

The Whitten chair will be renamed for Dr. Miller upon her retirement from HMS and carries historical significance as the first Department of Ophthalmology chair to be created in honor of a woman. Moreover, it and the new chair created last year to honor Evangelos Gragoudas, represent the medical school's first hospital-created professorships, funded by the Foundation of the Massachusetts Eye and Ear Infirmary primarily with patent royalty earnings from the QLT judgement involving



Dean Flier congratulates Dr. Gragoudas as the first incumbent of the Charles Edward Whitten Professorship in Ophthalmology.

photodynamic therapy and donations from generous friends. Now a decade in use, photodynamic therapy has saved the sight of countless patients worldwide and laid the foundation for subsequent pharmacologic treatments that have not only saved sight but restored vision for many patients.

continues on page 10



David G. Hunter, MD, PhD, with pediatric patient.

David G. Hunter, MD, PhD, Promoted to Professor of Ophthalmology

David G. Hunter, MD, PhD, the Richard Robb Chair in Ophthalmology and Ophthalmologist-in-Chief at Children’s Hospital Boston, was recently honored with an HMS promotion to Professor of Ophthalmology. Dr. Hunter received his MD and PhD degrees at Baylor College of Medicine, and completed an ophthalmology residency at Massachusetts Eye and Ear Infirmary/HMS. Dr. Hunter furthered his training with a pediatric ophthalmology fellowship at Wilmer Eye Institute of Johns Hopkins Medical School, where he joined the faculty in both Ophthalmology and Biomedical Engineering. He returned to HMS in 2002 as Ophthalmologist-in-Chief of Children’s Hospital.

During his tenure, Dr. Hunter has encouraged both clinical excellence and research innovation within the Ophthalmology division at Children’s. He created the first International Fellowship in Pediatric Ophthalmology and led the development, initiation and funding of the Children’s Hospital Boston Visiting Professor Lecture Series. Since its establishment in 2006, this lecture series has brought four to six internationally recognized visiting professors to Boston each year.

A devoted mentor and teacher, Dr. Hunter was nominated for the Harvard Medical Student Teaching Award in 2004, and received the Robert Petersen Pediatric Ophthalmology teaching award in 2005. As HMS Ophthalmology Vice Chair for Promotions and Reappointments, Dr. Hunter facilitates the academic advancement of the department faculty across all HMS affiliates. He has also added to the wealth of academic strength and collaboration within the Department by rigorously recruiting dual-fellowship trained faculty combining pediatric ophthalmology and subspecialty training in neuro-ophthalmology and oculoplastics.

continues on page 7

In this issue:

Notes from the Chair Cover
 Celebration Honors the Miller and Gragoudas Legacy with New HMS Chair Cover
 David G. Hunter, MD, PhD, Promoted to Professor of Ophthalmology 2
 Meet Our Scholars 3
 Ophthalmic Pathology Service Invigorates Teaching, Research, Patient Care 5
 Anti-VEGF Therapies Redefining Treatment for Diabetic Macular Edema 6
 Ophthalmology Faculty Explore Academic Opportunities In Shanghai 7
 HMS Ophthalmology Glaucoma Center of Excellence: Partnering for a Cure 8
 News from All Over 11

Published three times a year:

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Meet Our Scholars

Notes from the Chair, continued from cover

department in the country, we firmly believe that clinician scientists are key to transformational medicine, working with basic scientists to provide the clinical context of scientific endeavor and to aide in its translation.

Yet, despite the national desire to support translational research, funding for clinician scientists remains limited and difficult to obtain, leaving many to wonder if it can remain a viable career path. Seven years ago, we began a concerted mission to develop and encourage junior faculty to pursue research careers. Under the leadership of Dr. Reza Dana, we were awarded one of the few National Eye Institute (NEI) K12 grants for the Harvard Vision Clinical Scientist Research Program, enabling us to recruit, train and support first-rate clinician scientists in a mentored program that aims to develop their translational and clinical research interests into meaningful advances for patients. We have enrolled seven remarkable junior faculty to date, and the program was recently renewed by NEI for another five years.

Scholar Funds Support Clinician Scientists

While the K12 program provides an excellent mentoring program to support the early career development of clinician scientists, the path is still a difficult one, given that the average age of a researcher receiving their first-time RO1 or equivalent award is 42. At Mass. Eye and Ear, we have been fortunate to establish Scholar funds that provide salary support to clinician scientist faculty and, in particular, to junior faculty for intermediary support between mentored K awards and independent funding. The award and continuing royalties that come to Mass. Eye and Ear from our successful QLT judgment – itself the outcome of successful clinician scientist research – have funded much of this scholarship support. Two named retina scholar positions have been established from the research laboratory royalties of Dr. Gragoudas and myself; and three additional scholar positions have been established with department royalties. In addition, we have been able to establish a scholar program in the Cornea Service with a portion of the proceeds from sales of the Boston Keratoprosthesis, the work of Dr. Claes Dohlman. The first incumbents have been placed in these six scholar positions. (See “Meet Our Scholars, at right.)

Multi-Purpose Funding Boosts Salaries, Programs and Academic Pursuits

Scholar funds are just one way in which the HMS Ophthalmology Department supports research and education in the department. Our department now offers annual financial support for Mass. Eye and Ear research faculty to assist with expenses associated with professional advancement, such as meeting attendance and publication expenses. Furthermore, we have adopted an approach to provide bridge funding to research faculty at Mass. Eye and Ear: salary support for a number of years, which can be used on a flexible basis as needed while alternatives are aggressively pursued.

In some instances, we also target funds to support individual research programs. These funds are multi-purpose in nature and have been used, for example, to support stem cell studies in our Cornea Service; translational research in our Glaucoma and AMD Centers of Excellence; and will soon help to make available our highly innovative and interactive, cataract training software program – the Mass. Eye and Ear Cataract Surgery Trainer developed by Drs. Bonnie Henderson, Carolyn Kloek, John Loewenstein, and colleagues – to residency programs nationwide.

We also work closely with our scientists to seek out and apply for outside funding from federal, academic, industry and private sources. In 2008,

continues on page 4



Ivana K. Kim, MD
Evangelos S. Gragoudas
Distinguished Scholar in Retina Research
HMS Assistant Professor of Ophthalmology
Co-Director, HMS Ophthalmology AMD Center of Excellence
Director, AMD Unit, Mass. Eye and Ear Infirmary

Dr. Kim joined the full-time faculty of Mass. Eye and Ear's Retina Service in 2003. As a key member of the angiogenesis research team at HMS/MEEI, she has been involved in numerous clinical and translational studies directed toward the development of new therapies for age-related macular degeneration (AMD) and other ocular conditions involving choroidal neovascularization. Her preclinical research utilizes genetic analysis to identify both risk factors and new pathways associated with pathological disease processes investigating both melanoma and macular degeneration. One area of recent focus explores the use of animal models to study the pathophysiology and progression of dry AMD to geographic atrophy and blindness. She is also working with colleagues to test the safety and efficacy of antiangiogenic therapies for a growing number of ocular diseases.

Dr. Kim's research has been funded by a grant from Research to Prevent Blindness for her studies investigating the genetic basis of uveal melanoma for which she more recently received a 2-year R21 (exploratory/developmental research) grant from the National Cancer Institute at NIH. She was also recently awarded a 2-year, Clinical Research Agreement from Genentech to conduct a Phase Ib/II multi-center investigation of the safety, tolerability and evidence of beneficial activity of intravitreal injections for patients with geographic atrophy.



Demetrios G. Vavvas, MD, PhD
Joan W. Miller Scholar in Retina Research

HMS Assistant Professor of Ophthalmology
Dr. Vavvas is on the full-time faculty of MEEI's Retina Service. His laboratory research spans neuroprotection, ocular cancer,

angiogenesis, retinopathy of prematurity and diabetes. He is participating in ongoing studies to find safer and less toxic therapies for treating retinoblastoma in infants, and aims to develop therapies that prevent the growth of primary and metastatic tumors in uveal melanoma. In collaboration with Dr. Joan Miller, he is also pursuing neuroprotection strategies that can prevent photoreceptor death, and potentially preserve vision in many retinal diseases. He has been the recipient of several grants, including a Boston Area Diabetes Endocrinology Research Center pilot grant award (2008-2010) and a Fight For Sight Grant-In-Aid (2008-2009) for his investigative work on the role of AMP dependent kinase in diabetic retinopathy. In collaboration with Drs. Miller and Kim, he has received funding to develop the first dry AMD primate model.

continues on page 4



Ula V. Jurkunas, MD
Department of
Ophthalmology Scholar
HMS Assistant Professor
of Ophthalmology
Assistant Scientist,
Schepens Eye Research
Institute

Dr. Jurkunas is a full-time member of MEEI's Cornea and Refractive Surgery Service and Assistant Scientist at Schepens Eye Research Institute (SERI). Her studies focus on translational research related to corneal dystrophies and stem cell-based therapies for other diseases of the cornea. In 2006, she was one of the first HMS junior clinician scientists to receive a K12 Harvard-Vision Clinical Scientist Development Program award, monies that supported her award-winning research into the pathophysiology of Fuchs Endothelial Corneal Dystrophy (FECD). Today, Dr. Jurkunas is independently funded at SERI where she is principal investigator of an NIH-funded R01 research grant that will further her studies of FECD. In addition, her translational research to bring corneal stem cell therapy into clinical practice has been accepted by the Production Assistance in Cellular Therapies program of the National Heart Lung and Blood Program.



Lucia Sobrin, MD, MPH
Department of
Ophthalmology Scholar
HMS Assistant Professor
of Ophthalmology
Director, Morse Laser
Center, Mass. Eye and
Ear Infirmary

Dr. Sobrin is a full-time clinician scientist with the Retina and Uveitis Services. She, too, joined Mass. Eye and Ear in 2006 with an award from the K12 Harvard-Vision Clinical Scientist Development Program. One of Dr. Sobrin's primary research interests is elucidating the genetics of diabetic retinopathy in African Americans. She was the first ophthalmologist to be awarded funding under the HMS Catalyst Grant Program, and is principal investigator for a study entitled "Epidemiology and Genetics of Diabetic Retinopathy in the Jackson Heart Study." Dr. Sobrin has received several grants to support her work including, most recently, a major grant from the American Diabetes Association for her research project, "Admixture mapping to discover diabetic retinopathy genes in African Americans." This year, she has been honored with the ARVO/Alcon Early Career Clinician Scientist Research Award.

continues on page 5

Notes from the Chair, continued from page 3

the HMS Department of Ophthalmology was the number one university recipient of NIH funding in the country by a wide margin (*Ophthalmology Times*, October 2009), attesting to both our sheer doggedness in proposal submittals and the innovative, high caliber work of our researchers. To continue on this positive trajectory, we've recently staffed up our research program areas to provide additional administrative assistance to faculty with funding/application processes, and to help coordinate our robust clinical research activities.

Faculty Support a Major Priority

Recognizing and supporting the incredible talent within our ranks has been a major priority throughout my tenure. We have put aggressive mechanisms in place to facilitate promotions and appointments of our faculty through an expanded mentorship program, professional development workshops and leadership seminars. Two years ago, I appointed Dr. David Hunter as Vice Chair of Promotions and Reappointments to oversee these efforts and further hone our organizational goals. So far, these concerted efforts have culminated in seven professorial promotions, as well as numerous junior faculty advancements. Another important venue of support is the establishment of endowed professorships. Not only is this the highest honor we can bestow upon a faculty member, but it gives the incumbent the freedom and flexibility to pursue his or her specific areas of interest. In just the last year, we have established five additional professorships; two of these – the Charles Edward Whitten and the Stelios E. Gragoudas Professorships – were funded by the Foundation of the Mass. Eye and Ear Infirmary from our QLT royalties and generous donors, representing the first primarily hospital-endowed professorships in the medical school's history – testimony to the strength of our partnership and future endeavors between Mass. Eye and Ear and Harvard Medical School.

Our Mission of Excellence Continues

The historical uncertainty of funding makes us more determined than ever to ensure that the efforts of our clinician scientists are rigorously supported as they fulfill the department's tripartite mission. Our faculty is highly motivated in their academic work, often eschewing more lucrative, private-sector salaries to pursue passionately research that can vastly improve the lives of countless patients, and to concentrate on training the next generation of ophthalmic leaders. Their dedication and commitment deserves first-rate support from our academic leaders and community. In this regard, we are very fortunate to have excellent relationships with generous organizations and donors whose on-going commitment to eye research and education support the faculty in critical ways and make their work possible. We also enjoy the unswerving loyalty of our hospital and academic leadership as we have navigated difficult and prolonged legal battles over royalty rights, charted plans for unprecedented expansion, and sought to raise the visibility and recognition of the department. This multi-faceted and emphatic commitment to faculty research support is pivotal to advancing ophthalmic science, and to our ultimate goal of eradicating blinding diseases in this century. ■

The historical uncertainty of funding makes us more determined than ever to ensure that the efforts of our clinician scientists are rigorously supported as they fulfill the department's tripartite mission.

Ophthalmic Pathology Service Invigorates Teaching, Research, Patient Care



A teaching moment: Dr. Frederick Jakobiec and Ophthalmic Pathology Fellows Maria Kirzhner, MD and Fouad Zakka, MD (background) use a multi-headed, light microscope to examine a specimen during a read-out session in the Cogan Laboratory.

Frederick A. Jakobiec, MD, DSc, the Henry Willard Williams Professor of Ophthalmology, Emeritus and Professor of Pathology, Emeritus, was Chief and Chair at Harvard Medical School/Massachusetts Eye and Ear Infirmary from 1989 until 2002, when ill health made it necessary for him to step down. Happily for us, he made an excellent recovery and, at the invitation of Dr. Joan Miller, returned in July 2007 as director of the reorganized and expanded David G. Cogan Laboratory of Ophthalmic Pathology at Mass. Eye and Ear.

Under Dr. Jakobiec's direction, the Cogan Laboratory cooperates extensively with the Massachusetts General Hospital (MGH) Pathology Service to provide enhanced diagnostic services, resident and fellow teaching, and clinico-pathology research projects. Additionally, an alliance with

Boston University (BU) Department of Ophthalmology allows BU residents to rotate through the Cogan Laboratory. One of the projects Dr. Jakobiec developed upon his return was a pathology-based, visiting professor lecture series covering all aspects of ophthalmic pathology. This popular teaching venue, now in its fourth year, attracts speakers who are national leaders in ophthalmic pathology. The lectures are open to all HMS and BU Medical School residents and fellows in ophthalmology and pathology.

Another aspect of the eye pathology education program is Ophthalmic Pathology Rounds. Held once a month in the evening, the rounds are comprised of a comprehensive review of cases presented by residents and fellows on all subspecialty services. They are offered as "unknowns" to Dr. Jakobiec who covers the clinical features, differential diagnosis, pathologic features and management issues reflected in each case. Trainees and faculty from all HMS affiliate institutions are welcome and often comprise part of the audience. ■

For information on Ophthalmic Pathology Rounds dates, locations, and times, contact the Mass. Eye and Ear Ophthalmic Pathology office at 617-573-3319 or go to www.masseyeandear.org/for-professionals/ophthalmology and click on "Meetings and Courses" for a monthly calendar of educational events, rounds and conferences.

Scholars, continued from page 4



Louis R. Pasquale, MD
Distinguished Scholar in Ophthalmology
HMS Associate Professor of Ophthalmology
Co-Director, HMS Ophthalmology Glaucoma Center of Excellence
Director, Glaucoma Service, Mass. Eye and Ear

Director, Ocular Telemedicine Program, Mass. Eye and Ear
Associate Epidemiologist, Channing Laboratory, Brigham and Women's Hospital

Dr. Pasquale is the director and a full-time faculty member of Mass. Eye and Ear's Glaucoma Service. Dr. Pasquale's research focuses on early detection and an improved understanding of disease pathogenesis in primary open-angle glaucoma (POAG). He is principal investigator of several NIH-funded studies that examine the gene-environment interactions related to the disease that aim to reveal factors that increase intraocular pressure (IOP) in POAG, as well as target novel factors that contribute to optic nerve degeneration in POAG. Together with Janey Wiggs, MD, PhD, Dr. Pasquale is co-leading the NEIGHBOR Consortium – a multi-center cohort study that includes 8,000 glaucoma cases and controls, gathered from the Mass. Eye and Ear, the Nurses' Health Study (NHS), the Health Professionals Follow-up Study, and eight other institutions. Funded through the National Human Genome Research Institute, this work has generated the largest known group of POAG cases and, long-term, seeks to identify the full complement of genes, gene-gene and gene-environment interactions associated with POAG. This study has also formed the basis for subsequent projects including a genetic epidemiology study that demonstrated an association between gene variants and hormone replacement therapy in POAG. Additional studies have identified candidate genes for pseudoexfoliation syndrome, and have revealed trends in exfoliation glaucoma that highlight the importance of gene-environment interactions in glaucoma.



Pedram Hamrah, MD
Henry Allen Cornea Scholar
HMS Assistant Professor of Ophthalmology
Director, Ocular Surface Imaging Center, Mass. Eye and Ear Infirmary
Dr. Hamrah is a full-time faculty member of MEEI's Cornea and Refractive Surgery Service. He

directs the newly formed Ocular Surface Imaging Center, where he is interested in developing live imaging techniques and using *in vivo* confocal microscopy (IVCM) for image-guided therapy.

Dr. Hamrah's research focuses on immune cell trafficking in immune and infectious diseases of the cornea, including viral and microbial keratitis, corneal transplant tolerance and rejection, neurotrophic keratopathy and ocular surface disease. From 2008 through May 2010, his research was supported by a K12 Harvard-Vision Clinical Scientist Development Program award; this was followed by an individual K08 award from the NEI for his basic science work on the immunology of corneal antigen presenting cells. Recent research funding includes a Grant-in-Aid award from Fight for Sight, and two grant awards from Alcon Research, LTD.

Anti-VEGF Therapies Redefining Treatment for Diabetic Macular Edema

For the first time in 30 years, some people suffering from central retinal swelling, or diabetic macular edema (DME), may be able to substantially improve their vision thanks to novel pharmacologic therapies already FDA-approved for treating the “wet” form of age-related macular degeneration. A recent landmark clinical trial, sponsored by the Diabetic Retinopathy Clinical Research Network (DRCR.net), has shown that the anti-vascular endothelial growth factor (VEGF) medication ranibizumab (Lucentis®) – combined with either prompt or deferred laser treatment – significantly improved vision in many patients with DME. Findings from the study demonstrate that the new therapy may prove even more beneficial than standard laser photocoagulation by further reducing diabetes-associated swelling in the retina. The new therapy is quickly emerging as a potential and powerful first-line treatment for people with the disease. Dr. Lloyd P. Aiello, HMS Ophthalmology Vice Chair for Centers of Excellence, Director of the Beetham Eye Institute at Joslin Diabetes Center, and the inaugural chair of the NIH-funded DRCR network, is a lead author of the study.

The ongoing, five-year study involves a total of 854 eyes of 691 people diagnosed with type 1 or 2 diabetes and diabetic macular edema involving the retinal center. At one year of follow-up, participants who received anti-VEGF therapy gained an average of nine letters (nearly 2 lines) in visual acuity, a three-fold improvement over laser treatment alone. The percentage of patients who achieved at least two lines of vision gain jumped dramatically, from 28 percent to approximately 50 percent with anti-VEGF treatment (with prompt or deferred laser) compared to laser treatment alone. Conversely, the number of individuals treated with anti-VEGF medication versus laser alone who experienced two or more lines of vision loss also fell sharply from 13 percent to fewer than 5 percent of patients, representing a significant reduction in the number of people who experienced adverse effects.



Jennifer Sun, MD, PhD with diabetes patient Kevin England, a participant in the DRCR.net-sponsored Diabetic Macular Edema study. Mr. England began treatment in 2008 for his left eye. Thirteen months into the study, visual acuity in his eye had climbed 15 lines on the eye chart, giving him better-than-average vision of 20/16.

“The results from this clinical trial demonstrate that anti-VEGF therapies for treating diabetic macular edema can be remarkably effective, providing substantial improvements in vision and substantial reductions in vision loss.”

—Dr. Lloyd P. Aiello

Few participants experienced eye-related complications and there were no serious systemic events such as heart attack or stroke associated with treatment. Results from the trial were published online in April 2010 in *Ophthalmology*. Two year follow-up data are available for 57 percent of study participants and these results are consistent with the one-year findings.

“The results from this clinical trial demonstrate that anti-VEGF therapies for treating diabetic macular edema can be remarkably effective, providing substantial improvements in vision and substantial reductions in vision loss,” said Dr. Aiello. “Anti-VEGF treatments represent a full bench-to bedside cycle of translational research and, for the first time in more than a quarter-century, offer a new and powerful method for restoring sight to perhaps millions of people whose vision might otherwise be compromised by diabetic macular edema.”

Initially designed as a three year study, involving 52 sites within the DRCR network, the trial – now in year three – has been extended to five years and is supported by the National Eye Institute and the National Institute of Diabetes and Digestive and Kidney Diseases, part of the National Institutes of Health. ■

David G. Hunter, continued from page 2

Dr. Hunter is best known for his expertise in complex strabismus in adults and children. He is exploring and publishing innovative techniques in strabismus surgery including the “short tag noose” adjustable suture, and transposition procedures for parietic strabismus. His research is focused on developing more accurate ways to help pediatricians identify eye problems in children.

Dr. Hunter collaborates with Elizabeth Engle, MD, HMS Professor of Neurology and Ophthalmology, Howard Hughes Medical Institute Investigator, and a world-renowned strabismus pioneer and geneticist, who identified genetic mutations that cause congenital fibrosis of the extraocular muscles (CFEOM), a rare and complex ocular motility disorder. Drs. Hunter and Engle have established new clinical systems and protocols for studying the genetics of common strabismus disorders, including simple esotropia,

exotropia and anisometropic amblyopia. These new protocols – which include clinical exams and sampling of affected and non-affected family members to ensure proper phenotyping – will serve as a model for ongoing and future genetic studies at HMS affiliates.

A preeminent expert in optics and refraction, Dr. Hunter delivers lectures around the world (and via podcast) and has authored numerous scientific articles, editorials, and book chapters. He co-authored *Last Minute Optics*, a widely used optics review book, and serves as Editor-in-Chief of *Journal of the American Association for Pediatric Ophthalmology and Strabismus*. For his outstanding contributions to clinical ophthalmology, Dr. Hunter has received numerous honors, including the Richard Starr Ross Clinician Scientist Award from Johns Hopkins University and the Research to Prevent Blindness Lew R. Wasserman Merit Award. ■



Ophthalmology Faculty Explore Academic Opportunities in Shanghai

The HMS Department of Ophthalmology continues to nurture global partnerships in Aravind and Singapore, and explore new opportunities for collaboration and outreach. Last October, a group of five HMS faculty members – including Drs. Joan Miller, John Loewenstein, Evangelos Gragoudas, Janey Wiggs, and Ivana Kim, along with Ophthalmology Vice President Javier Balloffet – traveled to China on an international outreach trip to the Shanghai Eye and ENT hospital at Fudan University. The purpose of the five-day trip was to explore potential research collaborations with Shanghai colleagues, and provide them with information and insight on how to further develop a residency training program within the University’s health care system. The group received a tour of the Shanghai hospital, and enjoyed presentations on its clinical and research efforts. For their part,

HMS faculty offered an overview of ongoing clinical research efforts within the HMS Department, including glaucoma, retina, ocular cancer and genetics projects. They also provided details about the organization and structure of the HMS Residency Training Program, innovations to the curriculum, and how trainees can enhance the patient experience.

Participants on all sides have expressed their appreciation for the frank exchange of information, and are now formulating plans for further collaborative work, including a joint grand rounds teleconference. In early May, HMS Ophthalmology faculty welcomed a five-member team from Shanghai Eye and ENT Hospital. During their eight-week visit, team members – who specialize in glaucoma, retina, cornea and cataracts – are witnessing our resident and fellow training programs, and participating in a full range of learning opportunities that include general ophthalmology and subspecialty training practices. They are also meeting with HMS investigators to further explore potential research collaborations. ■



Janey L. Wiggs, MD, PhD, Co-Director,
HMS Glaucoma Center of Excellence

HMS Ophthalmology Glaucoma Center of Excellence: Partnering for a Cure

Recent advances in genetics, imaging and molecular and cell biology have revved up translational research efforts within the glaucoma community and heightened expectations that major advances in the field could be close at hand. Contributing to this momentum, the Department launched its Glaucoma Center of Excellence (COE), an evolving clinical, research and academic partnership that combines the efforts of 16 glaucoma researchers and clinicians from four affiliates within the HMS Ophthalmology community: Mass. Eye and Ear, Beth Israel Deaconess Medical Center, Schepens Eye Research Institute and Children's Hospital Boston. The Glaucoma Center of Excellence is co-directed by Janey Wiggs, MD, PhD, and Louis Pasquale, MD.

COEs are designed to create a broad network enterprise that channels the vast reservoir of knowledge, expertise, and resources within the HMS community. By creating communities of collaborators, COEs can help accelerate progress in the Department's three-fold mission of patient

care, research and education. Centers of Excellence also are underway in other key ophthalmic areas, including age-related macular degeneration, cornea and diabetic eye disease.

By creating communities of collaborators, COEs can help accelerate progress in the Department's three-fold mission of patient care, research and education.

One key component of the Glaucoma COE is a monthly focus group that enables Glaucoma faculty to share research and ideas, and exploit potential collaborations. For example, it was during one of these meetings that Dr. Pasquale met Emmanuel Buys, PhD – an Instructor in Anesthesia at HMS and researcher at Massachusetts General Hospital.

Dr. Buys was invited to speak to the group about his research on a knockout mouse model. As he listened, Dr. Pasquale realized that it could have direct relevance to his epidemiology research on Primary Open Angula Glaucoma (POAG) in women. "At that point, I reported on an interaction between a gene called eNOS3 and hormone replacement therapy in women with POAG," said Dr. Pasquale. "But I needed further validation that this relation was for real."



Louis R. Pasquale, MD, Co-Director,
HMS Glaucoma Center of Excellence

For Dr. Pasquale, it was a fortuitous encounter. As it turned out, the mouse model had an abnormality in a biochemical downstream eNOS3, and seemed to mimic the same kind of glaucoma that humans get. Once they discovered their connection, Drs. Pasquale and Buys teamed with Schepens scientists, Bruce Ksander, PhD, and Meredith Gregory-Ksander, PhD, to

validate that the mouse model is applicable to POAG in humans. The group submitted an R21 grant application to NIH. “This cross-fertilization of ideas is an exciting hallmark of our Glaucoma Center of Excellence,” Dr. Pasquale said. “We learn first-hand about ongoing work across the Department, and how our clinically relevant findings may have direct application to what our HMS colleagues are discovering in the lab. Under the old paradigm, Dr. Buys and I may never have crossed paths much less pooled our research efforts. First we hope to confirm that this mouse is a reasonable model of primary open-angle glaucoma. Then we have an opportunity to assess whether

manipulating estrogen levels will change glaucoma severity in these mice. This could provide validity to the concept that circulating estrogen levels are important in women with primary open-angle glaucoma.”

COEs also provide a conduit not only for attracting federal funds, but for identifying fundraising opportunities that tap private sources to expand research and training programs. For example, seed funding for the Glaucoma laboratory – a gift from Mass. Eye and Ear benefactors John and Rita Cannistraro – will help launch new and innovative projects that may greatly impact the future of research and patient care. ■

A periodic HMS Glaucoma Center of Excellence newsletter is also in development to keep HMS faculty, friends, supporters, and the glaucoma community apprised of investigator efforts and progress. To receive a copy of the newsletter, contact Melissa Paul at 617-573-4168 or melissa_paul@meei.harvard.edu.

Co-directed by Louis Pasquale, MD and Janey Wiggs, MD, PhD, the goal of the Glaucoma COE is to “shrink the timeline in bringing sight-saving advances to our patients and people throughout the world” by accomplishing the following directives:

Ensure Early Diagnosis: Develop more effective screening tools that will enable diagnosis of glaucoma in its earliest stages.

Identify Risk Factors: Determine genetic and environmental contributors to glaucoma; this will allow us to identify people at risk and educate them about lifestyle choices.

Develop Better Treatments: Target the root cause of the disease, and not just its symptoms, by understanding the molecular and cellular pathways that lead to optic nerve damage in glaucoma and regulation of eye pressure.

Execute Best Practices: Deliver high quality care utilizing cutting-edge diagnostic tools, innovative surgical techniques and rigorous outcomes review.

Deliver Personalized Medicine: Achieve optimum, sight-saving outcomes through customized treatment plans that reflect each person’s unique biology and genetic profile.

Inspire Tomorrow’s Leaders: Advance patient care, education and research directives through stimulating and supportive mentorship, resident and fellowship training programs.



Left to right: Wycliffe “Wyc” Grousbeck, MBA, JD, Chair of the Foundation and Board of Directors, MEEI; Jeffrey Flier, MD, Dean of the Faculty of Medicine HMS; Joan Miller, MD, HMS Department of Ophthalmology Chief and Chair; Simmons Lessell, MD, Director of Student Medical Education, HMS Ophthalmology; Evangelos Gragoudas, MD, first incumbent of the Whitten Professorship, and; John Miller, PhD, JD, spouse of Joan Miller.

New HMS Chair, continued from cover

When Dr. Miller was asked to consider the options for naming the chair until her retirement, her father was a clear first choice. Honest, loyal and unflappable, Chuck Whitten’s devotion to his family, friends and country was without peer; he was a man of character and conscience, a World War II hero remembered in memoriam as an “inspirational tour de force.” It was his encouragement and support, Dr. Miller recounted, that profoundly influenced her career and success. “This is certainly a high point in my career,” she said, “and I am deeply grateful to the President and Board of Directors of Mass. Eye and Ear. It’s wonderful to be recognized with this honor and, then, to be able to share it with my father, as well as my remarkable colleague and long-time friend, Evan Gragoudas.”

Dr. Gragoudas came to the United States from Greece following medical school, “full of dreams and aspirations.” He noted, “The opportunities for research at Harvard Medical School and Mass. Eye and Ear were numerous, and doing translational research became quite intoxicating. There was nothing more satisfying than seeing new treatments applied to people successfully, after a long struggle with experiments in the lab. Working at MEEI, I’ve had the opportunity to work with the best and brightest. One of those people was, and still is, our present chief, Joan Miller.”

During the celebration, HMS Director of Student Medical Education, Dr. Simmons Lessell, offered his unique perspective as teacher and mentor (ophthalmology, neuro-ophthalmology) to both honorees. “They shared an intense interest in disorders of the retina and a dedication to discovering and implementing treatment for serious, potentially-blinding or even fatal ophthalmic disorders,” he recalled. “Clinician scientists who excel in both are rare and bring a perspective requisite for productive and successful translational research...they were extraordinarily successful in their quest.”

Wycliffe “Wyc” Grousbeck, MBA, JD, chair of the Foundation and Board of Directors at Mass. Eye and Ear, attributed the growth of MEEI in recent years, in part, to the exemplary leadership and pioneering contributions of Drs. Miller and Gragoudas. “During Joan’s six-plus-year tenure as chief and chair,” he noted, “she has provided outstanding leadership in rebuilding a Harvard-wide Department of Ophthalmology that excels with international teaching reach, world-leading research programs, and globally-renowned care.” In praise of the chair’s first incumbent Mr. Grousbeck said, “Evan’s pioneering work developing proton beam therapy to treat ocular tumors has been his persistent passion... That an endowed chair may allow Evan the freedom to accomplish still further greatness in this chapter of his career is only fair – and a source of great pride to us all.”

In his remarks, Jeffrey Flier, MD, Dean of the Faculty of Medicine at Harvard Medical School, praised Drs. Miller and Gragoudas, lauding the establishment of the Whitten Professorship as an important part of the future of HMS, Mass. Eye and Ear and the Department of Ophthalmology, and noting “Our institutions are strengthened by this commitment, our partnership is advanced, and for that we are grateful.” ■

“Evan has been a constant in the life of the Miller family, given the intensity and depth of commitment of both Joan and Evan during the past 20 years of their research. It is fitting that he should become the first holder of the Whitten Professorship, forever linking these two names in scholarship and academia as they have been linked in research, clinical advances and friendship.”

—John Miller, PhD, JD

Ophthalmology Grand Rounds

Academic Year '10-11

Grand Rounds are held every Thursday from 8:00-9:00 AM in Meltzer Auditorium, 3rd Floor, Mass. Eye and Ear. Continuing Medical Education credit is available. A monthly list is posted at www.masseyeandear.org.

Special Grand Rounds Speaker

June 9, 2011: Dean Elliott, MD

Hats Off to Our Generous Alumni

Last year we launched our Alumni Giving Society of HMS Ophthalmology @ Mass. Eye and Ear. First-year membership topped nearly 100. Special thanks to our HMS alumni whose generous support of our programs, students and faculty helps us fuel a culture of excellence across the Department. This year, help us break the 100-member mark!

To learn more, contact Melissa Paul at Melissa_paul@meei.harvard.edu or call 617-573-4168. Gifts are tax-deductible.

Make Your Voice Heard!

Don't forget to cast your vote in the summer, 2011 *Ophthalmology Times* peer-rated survey. Just 328 physician subscribers determined last year's rankings. If you don't subscribe to *Ophthalmology Times*, then consider signing up at their website: www.modernmedicine.com/modernmedicine/ophthalmology/home/40207. If you're already a subscriber, your vote can make a difference!

Upcoming Events

The Department of Ophthalmology at Mass. Eye and Ear sponsors a range of special lectures and courses. For further information, please consult the Ophthalmology Education section at www.masseyeandear.org.

May 7-8, 2011: Annual Harvard Intensive Cataract Surgical Training Course for Second-year Residents

May 16, 2011: Boston Ophthalmic Pathology Lecture Series, Phakomatoses and Optic Nerve, Hans E. Grossniklaus, MD, Emory Medical School

May 26-27, 2011: Cornea Service Visiting Professor Lecture Series, Victor L. Perez, MD, Bascom Palmer Eye Institute, University of Miami Miller School of Medicine

June 16, 2011: HMS Department of Ophthalmology Graduation

June 17-19, 2011: HMS Department of Ophthalmology Annual Meeting & Alumni Reunion

July 22-23, 2011: Second Annual Harvard Medical School Department of Ophthalmology Fellows' Vitreoretinal Course

Awards, Grants & Other Honors

Professor of Ophthalmology (Pathology) **Patricia D'Amore, PhD, MBA**, is the recipient of the 2012 American Society for Investigative Pathology (ASIP) Rous-Whipple Award. The award will be presented to Dr. D'Amore during ASIP's annual meeting in April 2012.

Congratulations to **Reza Dana, MD, MPH, MSc**, who has joined the team of associate editors at *Investigative Ophthalmology and Visual Science*, the official journal for ARVO.

HMS Emeritus Professor of Ophthalmology **Claes Dohlman, MD, PhD**, added the European Union Cornea Society Medal to his pantheon of awards. He was presented with the honor at the Society's 2010 meeting in Venice, Italy.

Pedram Hamrah, MD, Assistant Professor of Ophthalmology received a grant from Alcon Research, LTD. totaling \$183,000. Dr. Pedram is studying the effect of BAK (benzalkonium chloride, a preservative) on the ocular surface immune cells, nerves and epithelium with the aid of *in vivo* confocal microscopy.

Two HMS faculty have been named ARVO Silver Fellows this year: **David Hunter, MD, PhD**, Professor of Ophthalmology, and **Mark Abelson, MD**, Clinical Professor of Ophthalmology.

Assistant Professor of Ophthalmology **Ula Jurkunas, MD**, has been awarded a Research to Prevent Blindness Physician-Scientist Award for 2011.

Assistant Professor of Ophthalmology **Ivana Kim, MD**, received a 2-year, Clinical Research Agreement award for more than \$400,000 from Genentech to conduct a Phase Ib/II multi-center study on the safety, tolerability and evidence of activity of intravitreal injections for patients with geographic atrophy.

Assistant Professor **Gabriel Kreiman, PhD**, was awarded a 5-year, \$500K National Science Foundation CAREER Award for his project, "Deciphering the Neural Code from Perception to Cognition." The NSF CAREER program fosters support for teacher-scholars who integrate research and education.

Ophthalmology Department Chief and Chair **Joan Miller, MD**, was the 2011 recipient of The Macula Society Paul Henkind Memorial Award. Dr. Miller delivered the Paul Henkind Memorial Lecture at the Society's annual meeting in March.

Dr. Miller was also honored with a Life Sciences Award from Health Resources in Action at their 53rd Annual Meeting. The award is presented in recognition of Dr. Miller's outstanding service as Chair of the Scientific Review Committee for the Edward N. and Della L. Thome Memorial Foundation, Bank of America, N.A. Trustee, Awards Program in Macular Degeneration Research.

Eye Trauma Service Director and Chief Resident (AY'10-'11), **Lynn Perry, PhD, MD**, has been selected by the Heed Ophthalmic Foundation as a 2011 Heed Fellow recipient. Dr. Perry will continue her postgraduate training next year as an Ocular Pathology Fellow in MEEI's Cogan Laboratory. Incoming retina fellow, **David Kim, MD**, now finishing his residency at Cornell Weill, has also been awarded a Heed fellowship.

Douglas Rhee, MD, Associate Professor of Ophthalmology, received a new Alcon Research award for his project, "SPARC and Ocular Hypertension."

Assistant Professor of Ophthalmology **Lucia Sobrin, MD, MPH**, was awarded nearly \$600,000 from the American Diabetes Association for her research project, "Admixture mapping to discover diabetic retinopathy genes." Dr. Sobrin also has been honored with a 2011 ARVO/Alcon Early Career Clinician Scientist Research Award. The award supports researchers who are committed to careers as clinician scientists and is awarded in recognition of significant research presented at the ARVO Annual Meeting.

For the second year in a row, an application to support the **Alcon Research Scholar** position has been approved to support the work of a clinical/translational research fellow in the MEEI Cornea Service. The grant is administered by Reza Dana, MD, MPH, MSc, Mass. Eye and Ear.

The National Institutes of Health/ National Eye Institute has renewed **The Department of Ophthalmology (T32) Training Grant**. The grant is administered by Patricia D'Amore, PhD, MBA, Schepens Eye Research Institute.

The **Mass. Eye and Ear Glaucoma Service** received a \$46,500 Participating Site Agreement award from Outcomes Sciences for their project: Primary Open Angle Glaucoma.



Mass. Eye and Ear Ophthalmologist, Dr. Ann-Marie Lobo, examines a patient during the *Year Up* vision clinic in February.

Staff Updates

Congratulations to the following staff on their HMS promotions/ appointments:

Mark Abelson IV, MD, CM, Schepens Eye Research Institute, Clinical Professor of Ophthalmology

Larry Benowitz, PhD, Children's Hospital Boston, Professor of Neurology at HMS, received a secondary appointment as Professor of Ophthalmology

James Chodosh, MD, MPH, Mass. Eye and Ear, Professor of Ophthalmology

Tatjana Jacobs, MD, Mass. Eye and Ear, Assistant Professor of Ophthalmology

Sharmila Masli, PhD, Schepens Eye Research Institute, Assistant Professor of Ophthalmology

Douglas Rhee, MD, Mass. Eye and Ear, Associate Professor of Ophthalmology

Joseph Rizzo III, MD, Mass. Eye and Ear, Professor of Ophthalmology

Personnel Changes:

Suzanne Freitag, MD, joined Mass. Eye and Ear in April 2011 as Director of the Ophthalmic Plastic Surgery Service. Dr. Freitag comes to us from Boston University Medical Center, where she had been service director for nine years. She is an accredited preceptor of an American Society of Ophthalmic Plastic and Reconstructive Surgeons fellowship, a position that will join the ACGME fellowship currently offered at MEEI. In her new role, Dr. Freitag follows **Aaron Fay, MD**, who is stepping down as director to focus on his MEEI clinical practice, and to enhance his research program developing techniques to assist lid opening and closing for patients who have ptosis, facial palsies, or other maladies that interfere with normal lid function.

Gena Heidary, MD, HMS residency graduate, pediatric fellow (Children's) and neuro-ophthalmology fellow (MEEI), joined Children's Hospital as their first dedicated Pediatric Neuro-Ophthalmologist.

Justin Kanoff, MD, has accepted the position of Chief Resident and Director of the MEEI Eye Trauma Service for AY 2011-2012.

Service

In partnership with the Mass Vision Coalition (MVC), Mass. Eye and Ear staff conducted a screening clinic in February for participants in *Year Up*, a program to help prepare disadvantaged young adults for entry into the business world. **Dr. Ann-Marie Lobo**, along with Ophthalmology residents **Savannah Baril**, **Meenakshi Gupta**, **Justin Kanoff**, **Sahar Kohanim**, and optometry resident **Ben Klibanoff** performed eye exams, and prescribed free spectacles to those in need. Many *Year Up* participants expressed their appreciation. Rocky S. wrote, "I didn't realize how much of a difference a pair of glasses could make in my day to day life." And Ralph F. told us, "I am thankful for your help in giving me the opportunity to better my vision ... I appreciate the time you have put into making this process a success...."

For the last several years, HMS Associate Clinical Professor **Felipe Tolentino, MD** and colleague **Dr. Roland Houle** have worked to establish an eye center in the Philippines at the Ifugao State University campus in the northern part of the country. This region has the highest incidence of cataract blindness in Asia. With their facility well established, they hope to attract volunteer cataract surgeons from the US to help further their mission of reducing cataract blindness among a poor and vulnerable population.

Ophthalmology Department Chief and Chair, **Dr. Joan Miller**, has been elected Vice President of the New England Ophthalmological Society (NEOS). Founded in 1884 for "the study and advancement of ophthalmology," NEOS is the oldest American medical specialty society in continuous existence.

Have a program or course to publicize? We would be happy to list it in the newsletter. Contact us at eyenews@meei.harvard.edu.

Education Updates

Evangelos Gragoudas, MD, has established the annual Gragoudas Prize – a \$10,000 award for the best retina paper of the year published by a Mass. Eye and Ear trainee (residents, clinical fellows and research fellows). Submissions must be received by the Ophthalmic Education Office by 5:00 PM, Friday, May 13. Dr. Gragoudas will present the award at the 2011 graduation ceremony. For more information, contact charles_ruberto@meei.harvard.edu.

Ophthalmology resident, **Sahar Kohanim, MD**, received a 2010 Resident Excellence Award from the American Society of Cataract and Refractive Surgery Foundation. The \$1,000 travel grant is awarded to ophthalmology residents who exhibit exemplary performance in research, patient care, leadership and education.

Shizuo Mukai, MD, Assistant Professor of Ophthalmology was nominated for a 2010-11 HMS/HSDM Excellence in Mentoring award.

Melanie Kazlas, MD, Matthew Gardiner, MD, Pedram Hamrah, MD, Lucia Sobrin, MD, MPH, and Gang Luo, PhD participated in the 2011 course, HMS Leadership Development for Physicians and Scientists.



Frank G. Holz, MD Delivers Sixth Annual Ephraim Friedman Lecture

The 2011 Friedman Lecture was given by Frank G. Holz, MD, Professor and Chair, Department of Ophthalmology, University of Bonn, Germany. Dr. Holz's medical training was principally in Germany but included stints at Johns Hopkins University, Baltimore, and Pritzker School of Medicine, University of Chicago. A sought-after lecturer and prolific writer, Dr. Holz combines a busy clinical practice, numerous clinical trials, and translational research in age-related macular degeneration (AMD) and retinal imaging. His presentation on "New perspective in imaging macular diseases" highlighted some exciting new ways that today's advanced imaging methods can lead to better diagnosis and treatment decisions for patients with AMD and other neovascular eye disease.

Now in its sixth year, the Ephraim Friedman Lectureship was established to honor this former Mass. Eye and Ear President and vitreoretinal specialist. A clinician scientist before the term was popular, Dr. Friedman studied the circulation of blood in the eye and developed a hemodynamic model of the pathogenesis of age-related macular degeneration (AMD). Dr. Friedman is beloved as a mentor to numerous Mass. Eye and Ear faculty and alumni, who established this lecture in his honor in 2005. The Department of Ophthalmology has also benefited from the Friedman family trust's initial endowment for the Sol and Libe Friedman Professorship in Ophthalmology. Endowed professorships are a significant benefit in attracting and retaining top-notch clinicians and scientists. For more information about supporting the Friedman Lectureship or the Friedman Professorship, contact Melissa Paul, Development Office, Mass. Eye and Ear, 617-573-3345.

Mass. Eye and Ear Space Renovations

The new **Ophthalmic Plastic Surgery Suite** on the 10th floor of MEEI is now complete, and appreciation is pouring in from patients, faculty and staff. This new suite is the first phase of a multi-stage, year-long renovation of the first floor clinical space that will expand capacity and comfort for patients in Comprehensive/Cataracts, Cornea, Refractive Surgery, Glaucoma and Uveitis Services.

Mass. Eye and Ear is planning to open an **outpatient surgical center** in Boston's Longwood medical area, with a target date in late 2012. The expansion is designed to keep pace with an increased demand for ophthalmology services, ease overcrowding on the main Charles St. campus, and make services more patient-accessible.

Alumni News

Call for Nominations! Do you know an HMS ophthalmology department graduate who deserves recognition for his or her outstanding contributions to the field of ophthalmology? Nominations for the 2012 "HMS Department of Ophthalmology Distinguished Alumni Professional Achievement Award" are now being accepted by the department through July 1, 2011. The annual award acknowledges HMS alumni for significant accomplishments in one of the following areas: clinical care, research, education or administration. Eligible candidates must be a graduate of an affiliated training program with an active clinical practice or research program. Additional eligibility criteria apply. For details, visit www.masseyeandear.org/eyes/alumniaward or contact Charles Ruberto, PhD, Director, Ophthalmic Education and Faculty Development at 617-573-3474.

Anthony Adamis, MD, former Mass. Eye and Ear cornea faculty and **Napoleone Ferrara, MD, PhD**, shared the 2010 Retina Research Award given by the Club Jules Gonin, a distinguished ophthalmology organization based in Europe. Dr. Ferrara collaborated with Drs. Adamis, Joan Miller, Lloyd P. Aiello and Evangelos Gragoudas in the research that elucidated the role of vascular endothelial growth factor (VEGF) in neovascular eye disease. In our last issue, we noted that Dr. Ferrara also received the prestigious Lasker-DeBakey Clinical Medical Research Award in 2010.

Former HMS resident **Jayakrishna Ambati, MD**, Professor of Ophthalmology, University of Kentucky, is one of two recipients of a 2011 AFER/Pfizer Ophthalmics/Carl Camras Translational Research Award from ARVO. Awards were presented at the May, 2011 ARVO Annual Meeting, Fort Lauderdale, FL.

HMS Alumnus, **Dimitri Azar, MD**, Professor and Head of the Department of Ophthalmology and Visual Sciences at the University of Illinois at Chicago, (UIC) College of Medicine, has been appointed Interim Dean of the College of Medicine, effective May 1, 2011. From 1986 to 1991, Dr. Azar completed a clinical fellowship in corneal and external diseases and his ophthalmology residency at HMS/Mass. Eye and Ear, where he served as Chief Resident before joining the faculty at The Johns Hopkins University. He returned to HMS in 1996 as Director of Corneal and Refractive Surgery Service at MEEI, serving with distinction as he rose in rank to HMS Professor of Ophthalmology, and attained the position of Senior Scientist at Schepens. We wish him all the best in his new role at UIC.



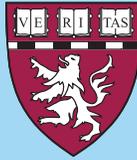
HMS glaucoma fellow ('85) **Eve J. Higginbotham, MD**, currently Senior Vice President and Executive Dean of Health Sciences at Howard University,

received the prestigious Heed Award from the Society of Heed Fellows during the 2010 American Academy of Ophthalmology meeting in Chicago. She is the first woman to receive the award in its 45-year history. Dr. Higginbotham, an internationally recognized expert in glaucoma and a Heed Fellow in 1983, is the 46th recipient of the award since its establishment in 1965. In accepting the award, Dr. Higginbotham said fellowship was an integral part of her professional growth, allowing her to work at the renowned Howe Laboratory of Ophthalmology at Mass. Eye and Ear under the tutelage of Dr. Tom Richardson, and to work with noted glaucoma specialist, Dr. Dick Simmons, who was affiliated with the laboratory.

Shahzad Mian, MD, former HMS cornea fellow ('02), has been appointed the first Terry J. Bergstrom Collegiate Professor for Resident Education in Ophthalmology and Visual Sciences at the Kellogg Eye Center, University of Michigan.

Former resident, chief resident, and neuro-ophthalmology fellow **Nicholas Volpe, MD**, is now Chair of the Department of Ophthalmology at Northwestern University Feinberg School of Medicine, and has been appointed the George W. and Edwina Tarry Professor. Previously he was on the faculty at the University of Pennsylvania.

Former HMS resident and retina fellow ('02), **David Zacks, MD, PhD**, was honored with the Macula Society's distinguished W. Richard Green Lecture and Award during its 34th Annual Meeting in March, 2011. The award was presented by HMS Chair, Dr. Joan Miller. Dr. Zacks is an Associate Professor in Ophthalmology and Visual Sciences at the University of Michigan, Kellogg Eye Center.



Annual Meeting & Alumni Reunion



In Memorium

Former research fellow and HMS Assistant Professor of Ophthalmology ('59-'66), **Carl Kupfer, MD**, passed away in April 2011 at the age of 83. In 1970, Dr. Kupfer was appointed the first Director of the National Eye Institute, National Institutes of Health (NEI/NIH), where he remained at the helm until his retirement in 2000. During his 30-year tenure, Dr. Kupfer's leadership profoundly impacted the scope and direction of vision science and research in the U.S. Dr. Kupfer is remembered as well for being a passionate humanitarian whose life and work impacted millions of lives around the world. From 1982-90, he served as President of the International Agency for the Prevention of Blindness, and was a major force in increasing collaboration among the world's non-governmental organizations working in the blindness prevention field with the World Health Organization.

HMS alumnus ('75), **Dr. Leo Masciulli**, 65, passed away at his South Carolina home in February, 2011. Dr. Masciulli graduated from Rutgers University in Newark, N.J., and Albert Einstein School of Medicine in New York City. After completing his residency in ophthalmology, he was awarded a vitreoretinal fellowship at HMS/Massachusetts Eye and Ear. He founded the Retina Vitreous Center which grew to include several partners and multiple offices throughout New Jersey.

Former ophthalmology resident **Dr. Charles J. Rife**, 96, passed away in September 2010 at his home in Pennsylvania. Following military service, he practiced ophthalmology in his home state for 33 years. Dr. Rife generously remembered Mass. Eye and Ear through a bequest in his will. *To learn more about planned giving options, please call our Development Office at 617-573-3342, or go to www.masseyeandear.org/makeagift.*

Corrections, Eyewitness #15:

Page 4: Middle photo, top of page features **Dr. Joseph Rizzo** with Distinguished Alumnus **Dr. Paul P. Lee**.

Page 4: Right photo caption, top of page, mistakenly identified graduating resident, **Dr. Nicole Benitah**, as a clinical fellow.

Page 8, Awards, Grants & Other Honors: **Dr. Shizuo Mukai's** name was listed incorrectly.

The Eyewitness staff apologize for these errors.

Make your reservations now to attend the HMS Department of Ophthalmology's Annual Meeting & Alumni Reunion weekend being held June 17-19. We are especially pleased to bring you this year's new, integrated format showcasing a spectacular schedule of events.

- On **Friday, June 17**, you are invited to attend our one-day Annual Meeting featuring this year's Distinguished Alumnus, Dr. B. Thomas Hutchinson, and our Mariana D. Mead Lecturer, Dr. John Irvine. Take a tour of Mass. Eye and Ear's new facilities, and enjoy a complementary dinner celebration while reconnecting with friends, colleagues and mentors.
- On **Saturday, June 18**, we kick off our inaugural Alumni Reunion meetings, dedicated to 10 quinquennial graduating classes and featuring inspiring, scientific lectures given by a distinguished graduate from each class.
- On **Sunday, June 19**, wrap up your alumni weekend in Boston with a trip to Fenway Park or a private group tour of the brand new Arts of America Wing at the Museum of Fine Arts.

We invite HMS resident, fellow and faculty alumni to register for all events and enjoy a fabulous, 3-day weekend of scientific milieu and festivities!

For details about our schedule of events and speaker line-up, visit us online at:

Annual Meeting info: www.masseyeandear.org/AlumniReunion/HMSAnnualMeeting

Alumni Reunion info: www.masseyeandear.org/AlumniReunion

Questions? Please contact the Mass. Eye and Ear Ophthalmic Education Office at annualmeeting@meei.harvard.edu or call 617-573-3719.

June 17-19: Don't Miss It!



Eyewitness



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HMS DEPARTMENT OF OPHTHALMOLOGY

SPECIAL EVENTS

June 16, 2011

Residents and Fellows Graduation

Meltzer Auditorium, 4:00 PM

Frederick A. Jakobiec Lecturer: John Irvine, MD

June 17, 2011

HMS Department of Ophthalmology Annual Meeting

Liberty Hotel (Ballroom), Cambridge Street, Boston, 8:00 AM-4:45 PM

Mariana D. Mead Lecturer: John Irvine, MD

Distinguished Alumnus: B. Thomas Hutchinson, MD

June 18, 2011

Alumni Reunion Meeting

Mass. Eye and Ear Infirmary, 243 Charles Street, Boston, 7:00 AM-4:30 PM

June 19, 2011

Alumni Reunion Special Events (tickets are limited, reserve today!)

Arts of America Wing, Museum of Fine Arts, 10:00 AM-11:00 AM

Red Sox vs. Milwaukee Brewers at Fenway Park, 1:35 PM

See page 15 for details, or visit www.masseyeandear.org/alumnireunion for a full schedule of weekend events.