SPOTLIGHT:
TRANSLATIONAL OCULAR ONCOLOGY
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(Left to right) Drs. Lawrence M. Pfeffer, Vanessa M. Morales-Tirado and Matthew W. Wilson
At the Hamilton Eye Institute, spring signals the start of another exciting year of discoveries, accomplishments and opportunities.

We kicked off our annual cycle of Distinguished Visiting Professorships this March with the second annual Montgomery Lecture. Coming up next is the Arnold Lecture at our annual Clinical Update, which this year coincides with the annual convention of the Memphis Eye Society, May 1-2. The Kambara Lecture follows on June 26 at our annual Alumni/Residents’ Day. We have several outstanding speakers lined up for these events, so mark your calendars!

Our research faculty is as prolific as ever. The Stein Innovation Award, the largest available source of flexible funding for new ideas in vision science, was awarded to UTHSC Chair of Genetics, Genomics and Informatics Robert W. Williams, PhD, a collaborator in HEI’s Center for Vision Research. The United States Army has also initiated support for research on innovative treatments for retinal trauma. In addition, several of our student research staff have received prestigious awards for their outstanding work, and we welcomed a new faculty member, Rajashekhar Gangaraju, PhD, to our research team.

Another highlight has been our recent interaction with local high schools. Germantown High School TV interviewed HEI faculty members recently about our history and mission. We also fostered the aspirations of Bolton High School students who visited for an up-close look at a career in ophthalmology.

I hope you enjoy this issue. More exciting news is always on the horizon.

FROM THE CHAIR

James C. Fleming, MD, FACS
Chair and Philip M. Lewis Professor of Ophthalmology

HAMILTON EYELIGHTS

a seasonal newsletter produced by

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The Hamilton Eye Institute was built through teamwork and the generous support of many individuals, including alumni, university and community leaders, grateful patients, families, foundations, and friends.

The capital campaign was led by FedEx Chief Information Officer Rob Carter and George Cates, whose guidance greatly advanced efforts to fund the institute. Loyal supporters included Dr. Ralph S. Hamilton and his wife, Barbara, R. Brad Martin, Lewis R. Donelson III, Hallam Boyd, Joseph Orgill, David “Mickey” Coleman, Jim and Virginia McGehee, Gail and Richard Siegal, Mack and Jonnie Day and a multitude of others, many of whom continue their support to this day.

HEI has also received major support from numerous foundations and organizations such as the Plough Foundation, the Knapp Foundation, the Children’s Foundation of Memphis, and the Mid-South Lions. In fact, the list of benefactors is so large, it covers a wall 8 feet high and 30 feet long in the institute’s lobby.

The Hamilton Eye Institute is blessed by these remarkable friends who share a common belief in our mission to provide the highest level of patient care in the fight against vision loss, foster a fertile environment for research, and educate the next generation of ophthalmologists in the art and science of ophthalmology. Their ongoing support enables our greatest strides, and we are truly privileged that they have placed their confidence in us.

Barrett G. Haik, MD, FACS
Hamilton Professor of Ophthalmology
Director, UT Hamilton Eye Institute

Overton Park and the Memphis Zoo

Located in the heart of Memphis, Overton Park is a 342-acre public park containing the Brooks Museum of Art, Memphis College of Art, a nine-hole golf course, playgrounds, a lake, open areas for picnics and play, a 126-acre forest with more than seven miles of trails, and the Levitt Shell, which offers more than 50 free concerts and children’s shows each year.

The park is also home to the Memphis Zoo. Voted the fourth best zoo in the United States by USA Today readers, it is home to more than 3,500 animals. Many seasonal events are held there such as Spring Break Zoo Camp, Halloween Zoo Boo, and holiday Zoo Lights. There are also many interactive exhibits like the Giraffe Feeding Adventure, Camel Excursion and Stingray Bay, where guests can touch live stingrays and sharks.

Overton Park and the Memphis Zoo are wonderful places for our diverse community to explore, learn, create, socialize and play. To learn more, visit overtonpark.org or memphiszoo.org.
HEI Clinics Opened to Medical Students for Student Day

February 2, more than 150 second-year UTHSC medical students learned essential ophthalmic examination techniques at our annual Student Day. More than 30 UTHSC and regional ophthalmologists volunteered to provide guidance and instruction for students at the event. We are grateful to all the students and physicians who made the day a success.

1. William R. Morris, MD, shows students eye disease images. 2. Ralph S. Hamilton, MD, demonstrates eye exam techniques. 3. Melvin Litch, MD, answers questions posed by students. 4. Edward Chaum, MD, PhD, helps a student conduct a direct ophthalmoscopy exam.

GLAUCOMA: Did You Know

- It’s the second-leading cause of blindness in the United States.
- Everyone is at risk for glaucoma, but it is six to eight times more common in African Americans.
- People over age 60 are more likely to get glaucoma.
- It tends to run in families.
- It is often unnoticed because vision loss creeps in from the edges of the visual field slowly and painlessly.
- Vision loss from glaucoma cannot be reversed, but with treatment it can be prevented or slowed.
- Those at higher risk for glaucoma should visit an ophthalmologist for a dilated eye exam every one to two years.
Second Annual Montgomery Distinguished Lecture

March 20, the Hamilton Eye Institute and Southern College of Optometry (SCO) co-hosted “Contemporary Management of Keratoconus,” a special lectureship event featuring the second annual John L. Montgomery, Sr., MD, Distinguished Visiting Professorship Lecture.

UTHSC Chair of Ophthalmology James C. Fleming, MD, FACS, and SCO President Richard W. Phillips, OD, FAAO, led the meeting. We were proud to welcome Canadian cornea specialist David Lin, MD, FRCSC, of the Pacific Laser Eye Center in Vancouver, who presented the second annual Montgomery Lecture, “Topography Guided PRK and Cross-Linking for Keratoconus KC and Ectasia Candidates for TG PRK and CXL.”

The day’s events also included a lecture about the next generation of endothelial keratoplasty by Aaron N. Waite, MD, HEI director of Cornea, Cataract and Refractive Surgery, and a discussion of keratoconus treatment strategies by New Jersey optometrist Clark Chang, OD, MSA, MSC, FAAO, and SCO Associate Professor John Mark Jackson, OD, MS.

New Display Honors Past Ophthalmology Chairman

This spring, the UTHSC Department of Ophthalmology honored Emeritus Professor Roger L. Hiatt, MD, with a wall on the third floor prominently showcasing his many achievements. It is dedicated to his lifetime of excellence in ophthalmic medicine, education and leadership. Dr. Hiatt chaired the department for a quarter of a century (1969-1994), the longest chairmanship in its 104-year history.
Drs. Haik and Hamilton on Germantown High School TV

Hamilton Professor and HEI Director Barrett G. Haik, MD, FACS, and Professor of Ophthalmology Ralph S. Hamilton, MD, were featured on “Mentors,” a talk show hosted by Tracy Speake on Germantown High School Television (GHS-TV).

The show was taped January 15 and aired on Comcast channel C19 throughout February. Drs. Haik and Hamilton discussed the Hamilton Eye Institute’s history and mission, as well as some common causes of vision impairment that we work to treat and prevent.

UTHSC Ophthalmology Department Chair James C. Fleming, MD, FACS, joins Drs. Haik and Hamilton in expressing their gratitude for the opportunity. They wish to thank Tracy and his wife, Bettye, who are dear friends and longtime supporters of the Hamilton Eye Institute. They also thank Allison Long, executive director of GHS-TV and chair of the Department of Creative and Performing Arts, and the student staff of GHS-TV for their remarkable professionalism. The show may be viewed online at http://youtu.be/6O6lyZ2n7Q.

Welcome New Research Faculty

Assistant Professor Rajashekhar Gangaraju, PhD, is the most recent addition to our academic faculty, joining us from Indiana University’s School of Medicine, where he was an assistant professor in the Department of Ophthalmology, Department of Cellular and Integrative Physiology, and Indiana Center for Vascular Biology and Medicine. Trained as a cell biologist, he has experience in physiology, biochemistry, molecular biology and pharmacology with special interest in vascular biology.

His research interests include endothelial activation and inflammation in retinal diseases, and use of stem cells for cellular regenerative therapies. These interests foster his long-term goal of advancing clinical management of diabetic retinopathy and age-related macular degeneration. Dr. Gangaraju’s research is in part supported by the National Eye Institute and an unrestricted grant from Research to Prevent Blindness.

Dr. Gangaraju
HEI Inspires Future Physicians

This winter, 38 high school juniors from the HOSA Future Health Professionals club at Bolton High School got a sneak peak into the career of an ophthalmologist. The tour was requested by health science teacher Lorna Brown and conducted by HEI ophthalmology residents Michael Hood, MD, Juliet Kim, MD, and Shilpa Reddy, MD, who spoke to the students about career choices. After viewing a 3-D oculoplastic surgery video in the Freeman Auditorium, the students got to experience eye surgery firsthand in HEI’s Jim and Virginia McGehee Skills Transfer Center with our suite of ophthalmic surgery and diagnostic simulators. It was a privilege to be able to inspire these young minds to consider a career in ophthalmology.

Graduate Research Assistant Awarded

The Bright Focus Foundation has awarded graduate research assistant Sumana Chintalapudi, MS, a travel grant to the 12th Congress of the Association for Ocular Pharmacology and Therapeutics in Charleston, S.C. She was selected for an oral presentation in the Young Investigator’s Platform Session for her research on treatments for atrophic age-related macular degeneration. Sumana works in the lab of HEI researcher Monica M. Jablonski, PhD, associate dean of Postgraduate Affairs and professor in the Departments of Ophthalmology, and Anatomy and Neurobiology.

*Top:* Bolton students with residents Shilpa Reddy, MD (bottom left), Michael Hood, MD, and Juliet Kim, MD (third and second from bottom right)

*Inset above:* Dr. Hood assists a student with the eye surgery simulator.

*Right:* Sumana and Dr. Jablonski
Tuesday, November 4, marked the inaugural West Cancer Center/University of Tennessee Health Science Center (WCC/UTHSC) Research Symposium. The WCC is a recently formed collaboration between the West Clinic, UTHSC and Methodist Healthcare, which is designed to consolidate resources in Memphis to provide comprehensive, first-class oncology services. This new partnership will also foster enhanced research collaboration among the many talented clinicians and scientists working in the region. The symposium was conceived to showcase research efforts currently under way and promote discussion for future projects.

More than 45 posters were displayed at the event, including one from HEI Assistant Professor of Ophthalmology Vanessa Morales-Tirado, MS, PhD, whose research was also among a select group of posters chosen for oral presentation. Her work, “Modulation of Cytoskeletal Associated Proteins in Uveal Melanoma,” highlighted recent discoveries from her lab that explore the immunobiology of ocular melanoma — specifically, how malignant cells communicate with their surroundings to grow and metastasize. These unique findings have identified novel drug targets and provide a greater foundation for future translational research.

Army Funds Retina Research

About 15 percent of military personnel injured while serving in Iraq and Afghanistan sustained significant eye injuries. Blast injuries to the face often cause retinal trauma. This, in turn, can lead to proliferative vitreoretinopathy, a severe scarring of the retina caused by an innate healing response following traumatic injury.

Working with co-investigators at St. Jude Children’s Research Hospital, Edward Chaum, MD, PhD, Plough Foundation Professor of Retinal Diseases at HEI, has received research funding from the United States Army Medical Research Acquisition Activity to test a new therapeutic class of drugs for the next three years to prevent and treat proliferative vitreoretinopathy. If successful, the study could lead to new treatments that may save the sight of wounded soldiers and civilians alike.
HEI’s Translational Ocular Oncology Program

In 1995, Dr. Barrett G. Haik arrived in Memphis with the challenge of developing a state-of-the-art eye center at UTHSC. Here, he built the Hamilton Eye Institute and the Ophthalmic Oncology Service, and both thrived under his leadership. Over the next 20 years, the oncology service was transformed into an outstanding comprehensive eye cancer center. Now under the direction of HEI Professor of Ophthalmology and St. Jude Chair of Pediatric Ophthalmology Matthew W. Wilson, MD, FACS, the center oversees 100 new cases each year of uveal melanoma, a silent killer that leads to metastatic disease in 50 percent of patients.

HEI’s clinics have expanded by partnering with the West Cancer Center and Methodist University Hospital under the umbrella of the University of Tennessee Health Science Center Oncology Division. We provide comprehensive care that includes treatment of primary disease, metastatic surveillance and treatment of metastatic disease. Further, HEI has developed a translational research program, led by Assistant Professor of Ophthalmology Vanessa M. Morales-Tirado, MS, PhD, that is building strong collaborative efforts throughout the campus and the United States. Dr. Morales-Tirado and UTHSC Center for Cancer Research Director Lawrence M. Pfeffer, PhD, (see front cover photo) have built a unique, multidisciplinary translational team that develops new technology and in vivo models to investigate uveal melanoma.

Our translational ocular oncology program is dedicated to training the next generation of physicians and scientists. We have many medical students, graduate students and staff who perform active research, participate in journal clubs and have been recognized for their work nationally. Third-year medical student (M3) Mercy Kibe was selected for the prestigious 2015 Doris Duke International Clinical Research Fellowship and was awarded a 2014 travel grant to participate in the annual meeting of the Association for Research in Vision and Ophthalmology (ARVO); M2 Justin Lendermon was awarded a travel grant and selected to give an oral presentation at ARVO 2015; and M2 Ryan Lee received the Fight for Sight Summer Research Fellowship 2014-2015. Other students and staff contributing to our success are Anderson Webb, Nabil Saleh, Levon Djenderedjian, Bradley Gao, Matthew McEwen, Benjamin Emery and Zachary Goldsmith.

Right: Dr. Wilson (at podium) convenes a meeting of the Melanoma Research Group (MERG), a collaborative group focused on uveal melanoma, which is composed of members from the UTHSC Center for Cancer Research and St. Jude Children’s Research Hospital.

Above: (from left) Dr. Morales-Tirado, 2015 Duke Fellowship awardee Mercy Kibe, and Dr. Wilson
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**RESIDENTS**

**THIRD YEAR**
- Austin Bell, MD
- Michael Hood, MD
- T. Amerson Pegram, MD
- Patrick Risch, MD

**SECOND YEAR**
- Kourtney Houser, MD
- Jordan Masters, MD
- Shilpa Reddy, MD
- Rebecca Epstein, MD

**FIRST YEAR**
- Juliet Kim, MD
- Benjamin King, MD
- Andrew Meador, MD
- Emily Prouet, MD
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**PRACTICING PHYSICIANS AT HEI BY OPHTHALMIC SUBSPECIALTY**

**COMPREHENSIVE OPHTHALMIC SUBSPECIALTY**
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- Brian M. Jerkins, MD

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- Lauren C. Ditta, MD

**OCULAR ONCOLOGY**
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- Matthew W. Wilson, MD, FACS

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- Barrett G. Haik, MD, FACS
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- Mary Ellen Hoehn, MD
- Shiva Bohn, MD
- Lauren C. Ditta, MD

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- Edward Chaum, MD, PhD
- Jorge I. Calzada, MD

**UVEITIS, INFLAMMATORY DISEASES**
- R. Christopher Walton, MD, MHA

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- Thomas J. O’Donnell, MD
- Orli M. Weisser-Pike, OTR/L, CLVT, SCLV

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Events Calendar

May 1-2, 2015
Clinical Update & Annual Memphis Eye Society Meeting
Featuring the I. Lee Arnold, MD, Distinguished Visiting Professor,
Norman B. Medow, MD, FACS, and visiting guest speakers
Steven Sarkisian, Jr., MD, and P. Dee Stephenson, MD, FACS.
For registration, agenda and other information, visit uthsc.edu/eye/news/mes2015.php or call HEI Publications at (901) 448-1326.

June 26, 2015
44th Annual Alumni/Residents’ Day
Featuring the 25th Annual Kambara Distinguished Visiting Professor
Terri Young, MD, MBA, Professor and Chair, Department of
Ophthalmology and Visual Sciences, University of Wisconsin School of
Medicine and Public Health, Madison, Wis.
For more information, please visit uthsc.edu/eye/news/ard2015.php or call HEI Residency Coordinator Miea Williams at (901) 448-1767.

To learn more about upcoming events, visit uthsc.edu/eye/events.php