

**HAMILTON
EYE
INSTITUTE**

LIGHTS

SPECIAL EDITION



Ivan Marais, MD

Cataract-A-Thon

PAGE 18

Letter from the Director





As 2018 begins, we honor those who have made great strides in the advancement and growth of HEI.

This past year, HEI has welcomed new administrative staff, fellows, residents, and faculty and is excited to encourage their future successes. We held our first annual Ivan Marais Cataract-a-thon, in honor of our great instructor and mentor, Dr. Ivan Marais, who passed away in April of 2017. The event was received with great success. Many of our faculty received wonderful grants and awards aiding in their research goals.

HEI held its 20th Williford Distinguished Professorship and its annual Clinical Update and Memphis Eye Society meeting featuring Oscar A. Cruz, MD, as the distinguished lecturer. Our faculty has traveled locally and overseas in order to bring sight to the people of Memphis, Haiti, Panama, Ethiopia and Guatemala. HEI partnered with the people of Haiti to bring training to the residents through a skills transfer workshop. Residents will be able to utilize these skills in the fight against blindness.

Sadly, in August 2017, we lost another founding visionary to HEI, Dr. Ralph S. Hamilton. We have celebrated the lives of Dr. Hamilton and our late director, Dr. Barrett Haik, through reflection and the continuation of their legacy. As we continue the new year, we hope that it will equally bring the opportunities and fresh prospects that we have achieved in 2017. Thank you to all of those who have supported our efforts through the years. We truly appreciate the hard work that each and every one has contributed to the creation of this new issue of Hamilton Eyelights and to a remarkable year revering our core mission of curing the world of vision disorders, one eye at a time.

Sincerely,

*James C. Fleming, MD, FACS
Philip M. Lewis, MD Professor of Ophthalmology
Director, Hamilton Eye Institute
Department of Ophthalmology, UTHSC*

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Credits

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Department News

New Faculty



Brian M. Jerkins, MD

Brian M. Jerkins, MD, is a medical and surgical glaucoma specialist, who is rejoining Hamilton Eye Institute in 2018. Dr. Jerkins is the son of Gary Jerkins, MD, in Nashville. Both

are alumni of the University of Tennessee Health Science Center's Department of Ophthalmology.

Dr. Brian Jerkins graduated from Lipscomb University in 2002 and earned his medical degree from the University of Tennessee Health Science Center in 2008. He then completed his residency in Ophthalmology at the University of Tennessee Health Science Center Hamilton Eye Institute in 2012. This was followed by glaucoma fellowship training at LSU/Ochsner Clinical Foundation in New Orleans, LA in 2013. He joined the faculty as an Assistant professor in Ophthalmology at the University of Tennessee Health Science Center Hamilton Eye Institute in 2013 until 2015.

He then joined Memphis Eye and Cataract Associates in Memphis, TN and practiced through 2017.

Dr. Jerkins is board certified by the American Board of Ophthalmology and is a member of the American Academy of Ophthalmology, American Glaucoma Society, Tennessee Academy of Ophthalmology, Memphis Eye Society, Tennessee Medical Association, and Memphis Medical Association.

Dr. Jerkins has been an invited speaker and presented posters at various national organizations and meetings along with participation in medical missions. He is involved in various investigations and is committed to improving his patients' treatments and further medical knowledge to save the sight of patients with glaucoma. He is dedicated to the vision of the Hamilton Eye Institute set forth by his late mentors Dr. Ralph Hamilton and Dr. Barrett Haik and hopes to continue their tradition of excellence in Ophthalmology patient care and resident training.



Kourtney Houser, MD

Kourtney Houser, MD, is an ophthalmologist at UT Ophthalmology Hamilton Eye Institute. Dr. Houser received her medical degree from and completed her internship and residency at the

University of Tennessee Health Science Center in Memphis. After concluding her fellowship in cornea, anterior segment and refractive surgery at the Baylor College of Medicine in Houston, Dr. Houser returned to Memphis to practice ophthalmology at the Hamilton Eye Institute.

Dr. Houser is a member of the American Academy of Ophthalmology, the American Society of Cataract and Refractive Surgeons, the Cornea Society and the Tennessee Medical Association. Previous medical experience has led Dr. Houser to have special interests in the following: corneal transplant surgery, secondary intraocular lens implantation, cataract surgery and refractive lens exchange, micro-invasive glaucoma surgery (MIGS), LASIK and PRK vision correction, corneal cross-linking, implantable collagen lens, dry eye, keratoconus, and corneal ulcers.

New Residents



Residents from left:

Adam Carrera, MD,
East Tennessee State University

Rutvi Patel, MD,
UTHSC

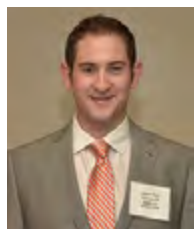
Stephen Dryden, MD,
University of Texas Galveston

Eric Sollenberger, MD,
UTHSC

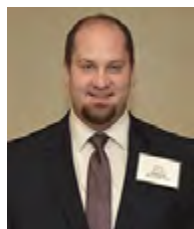
Craig Thiessen, MD,
UTHSC

Incoming Residents 2018:

This winter was a very successful recruitment season for the Department of Ophthalmology's 2018 PGY2 residency class. We are excited to announce our five exceptional matched incoming residents:



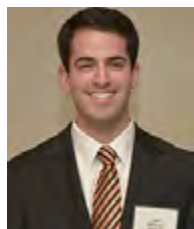
Edwin Gannon III,
UTHSC College of
Medicine



Jason Jensen,
University of
Utah School of
Medicine



Charles McGuffey,
University of MS
School of Medicine



Salar Rafieetary,
UTHSC College
of Medicine



Casey Van Allen,
UTHSC College
of Medicine

Welcome New Fellows

Ocular Oncology



Benjamin King, MD
University of Tennessee
Health Science Center
Memphis, Tennessee

Vitreoretinal Surgery



Stephanie Vale, MD
University of Puerto Rico
Mayaguez, Puerto Rico

Oculoplastic Surgery



Kendra DeAngelis, MD
Brown Alpert Medical
School Providence,
Rhode Island

New Staff



Andrea Jones
Accounting Assistant



April Jordan, MA
Financial Administrator



Janet A. Wiens, MA
Grants Administrator

Events

The 4th Annual Montgomery/Cochran DVP

On April 7 of 2017, the Southern College of Optometry and Hamilton Eye Institute held their 4th annual Montgomery/Cochran Distinguished Visiting Professorship meeting. The event featured speakers Guy M. Kezirian, MD, MBA, FACS, who is the founder of the Refractive Surgery Alliance as HEI's 4th



John L. Montgomery, Sr., MD, Distinguished Visiting Professor and Nimesh Patel, OD, PhD, an associate professor at Houston College of Optometry, as SCO's William "Billy" Cochran Visiting Scholar. We are tremendously grateful to Drs. Kezirian and Patel for their outstanding presentations.

Annual Clinical Update Meeting & Memphis Eye Society Convention

In April, the Hamilton Eye Institute (HEI) held its annual Clinical Update and Memphis Eye Society meeting. This year HEI welcomed pediatric ophthalmologist Oscar A. Cruz, MD, to deliver the 16th I. Lee Arnold lecture as a Distinguished Visiting Professor. Due to his clinical interest, Dr. Cruz gave an in-depth lecture on the topic of Strabismus surgery in Thyroid Eye Disease. He currently serves as a Professor and Chairman of the Department of Ophthalmology at Saint Louis University.

We gladly received invited speakers Allison W. Shuren, MSN, JD, and Francis Price, Jr., MD. Shuren, co-chairs the Life Sciences and Healthcare Regulatory Practice, advising us on compliance with health regulatory requirements. Ms. Shuren spoke about the complications of



American Health Care. Dr. Francis Price established Price Vision over 30 years ago and founded the Cornea Research Foundation of America in 1988. Dr. Price gave us insights regarding the new findings in Fuch's Dystrophy.



The event was organized and led by Special Events Director Mary Ellen Hoehn, MD., UTHSC Director of Hamilton Eye Institute Ophthalmology James C. Fleming MD, FACS, and Memphis Eye Society President James F. D. Freeman, MD.



Dr. Kerr and graduating residents



Graduating residents present the Philip M Lewis Award to Dr. William Morris

46th

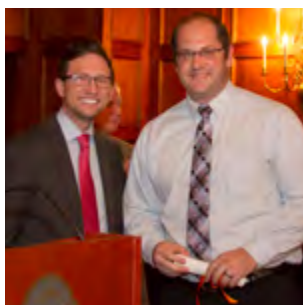
ALUMNI-RESIDENTS' DAY



From Left: Drs. Fleming, Mets, and Kerr

On June 16, the University of Tennessee celebrated the 46th annual Alumni and Residents' Day along with the 27th annual George K. Kambara, MD, Distinguished Visiting Professorship. The goal of this forum is to allow for first- and second-year residents to present their research projects and case presentations and for faculty to present clinical and basic science as well as new updates on modern practices. This event is a celebration of our graduates as they receive certificates and diplomas propelling them to their next phase.

Our visiting professor was Marilyn B. Mets, MD, who is a Division Head of the Ann & Robert H. Lurie Children's hospital of Chicago and a Professor of Ophthalmology. She holds the Lillian Sherman Cowen Reiger and Harold L.S. Cowen Professorship from the Northwestern University Feinburg School of Medicine. Dr. Mets gave an enlightening lecture on the topic of the ocular manifestations of congenital infections.



Dr. Fowler (Left) recognized Dr. Jason Jensen for his work on developing HEI's educational video atlas



Dr. Hood (right) graduating Vitreoretinal Surgery instructor & Dr. Jorge I. Calzada



Dr. Kanner receives special "Golden Globe" award from graduating residents



Dr. Goecks (right) graduating Orbital/Oculoplastic Surgery instructor & Dr. Fleming



Dr. Fleming presents the Distinguished Service Award to Mrs. Bettye Speake

Drs. Claire L. Kiernan, Whitney Potter, Matthew Hartman, and John Caleb Hildebrand gave their first-year resident case presentations. Drs. Rocio Diaz Sanjur, Sarah D. Queck, Cody R. Richardson, Elizabeth Rosenberger, and David M. West presented their second-year resident research projects. Rajashekhar Gangaraju, PhD, and Nawajes Mandal, PhD delivered presentations as members of the faculty. The event was directed and organized by HEI's Residency Program Director and Hiatt Professor of Ophthalmology Natalie C. Kerr, MD, and Associate Professor and HEI's Special Events Director Mary Ellen Hoehn, MD. The Hamilton Eye Institute offers its deepest gratitude to Dr. Mets for her participation in the 46th Annual Alumni/Residents' Day and heartfelt congratulations to our graduates.



20th Williford Distinguished Visiting Professorship



On October 26, 2017, The Hamilton Eye Institute was honored to welcome George S. Ellis, Jr., MD, as our 20th William N. Williford, MD, Distinguished Visiting Professor. Dr. Ellis specializes in Pediatric Eye Diseases and Adult Strabismus. After completing his residency in Ophthalmology at the Duke University Eye Center, he trained with Zane Pollard, Marshall Parks, David Guyton, and Clinton McCord. In 1995, he assumed the Directorship of Ophthalmology at Children's hospital in New Orleans. Dr. Ellis is a prominent member in multiple Ophthalmological organizations including American Association for Pediatric Ophthalmology and Strabismus, the American Eye Study Club, the Southern Medical Association and several others with various leadership roles.



Dr. Ellis delivered an in-depth summary over "Gavaris Minimal Ptosis Repair Long Term Results" as his Williford Lecture, which was well received by the UT faculty, residents, fellows and members of our medical community. After the enlightening lecture, Dr. Ellis was presented a custom-designed plaque with an artistic etching of the Hamilton Eye Institute.



William N. Williford, MD, an alumni of UT Knoxville, UT Medical School, and the UT Ophthalmology residency endows the distinguished visiting professorship. A highly experienced and regarded anterior segment and cataract surgeon, Dr. Williford's involvement in educational programs and generosity establishing this professorship allows us to invite outstanding clinicians as the Williford Professor.



Skills Transfer Workshop

On October 27, 2017, Dr. Kourtney Houser, Director of the Jim McGehee Skills Transfer Center, and Dr. Chris Fleming assembled a skills transfer workshop as the Hamilton Eye Institute partnered with the World Cataract Foundation (WCF) to bring knowledge and training to visiting doctors and residents. The WCF provided supplies and instruments. Drs. John Van Dyck and John Freeman taught and lectured over the small-incision cataract surgery (SICS) procedure. Dr. Rachele Amedee visiting from Haiti with the WCF Medical Personnel Program served as a teacher, and 12 residents were in attendance.



HEI Annual Alumni Reception



The Hamilton Eye Institute welcomed its alumni by hosting an annual reception on November 11, 2017 at the American Academy of Ophthalmology in New Orleans. We look forward to this reception as a way to reconnect and share our successes with our former students, fellows, faculty and third year residents. We are grateful for those that attended this year's reception and their continued support of the Hamilton Eye Institute. With great anticipation, we welcome all alumni and faculty to our upcoming reception at the October 2018 AAO meeting in Chicago.



MUSEUM OF VISION



The Museum of Vision Acquires Rare Phacoemulsifier for the American Academy of Ophthalmology

In his passing, Dr. Barrett Haik generously donated his Kelman/Cavitron Phacoemulsifier to the Museum of Vision Ophthalmic Heritage for the American Academy of Ophthalmology. This machine used ultrasonography to break the lens into pieces that are extracted through a tiny incision. First created in the 1970s, the instrument was ahead of its time. The Phacoemulsifier once belonged to Dr. Haik's father, George Haik, MD,

professor and chair of Ophthalmology at Louisiana State University and held a long legacy in his family. The machine will receive a place in the museum's new permanent collection. In attendance of this celebration; heartfelt endearing expressions were shared by his brothers, George M. Haik, MD, Kenneth Haik, MD, his cousin George G. Ellis, Jr., MD, as well as D. Jackson Coleman, MD Chair, Emeritus Weill Cornell Medical College, Clinical Visiting Associate Professor Ernesto A. Calvo, L., MD, Coleman, and many dear friends and colleagues.

With deepest appreciation to Norman B. Medow, MD, FACS, Director, Pediatric Ophthalmology and Strabismus, Professor Ophthalmology and Pediatrics at the Montefiore Hospital Medical Center and Jenny E. Benjamin, MA Director, Museum of Vision, Ophthalmic Heritage, American Academy for their exceptional contribution to the preservation of ophthalmic history. It is a great honor and privilege for the Haik family to have the Kelman/Cavitron Phacoemulsifier be a part of the American Academy of Ophthalmology Museum exhibit. Dr. Haik's caring and giving nature has made this donation possible in the hopes that our past will shape our future of vision health.





LASIK Surgery

Improve your **vision**. Enhance your **life**.

What is LASIK?

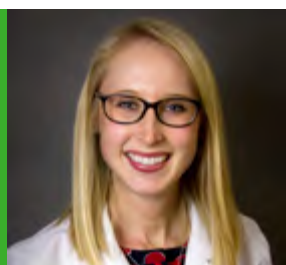
Laser vision correction surgery involves the use of lasers to reshape the cornea and treat refractive errors of the eye, including nearsightedness, farsightedness and astigmatism. The goal of surgery is to reduce the need for glasses and contact lenses. The procedures are performed in-office and only take a few minutes per eye.

Am I a good candidate for laser vision correction?

If you are nearsighted, farsighted or have astigmatism and are over 21 years of age, you may be a candidate for laser vision correction surgery.

What types of procedures are offered?


A variety of the newest and most up-to-date procedures are offered, including completely bladeless LASIK and PRK. Both are safe and effective procedures that reduce or eliminate the need for glasses or contact lenses. LASIK has the advantage of a fast recovery, while PRK offers an excellent alternative to patients who might not be candidate for LASIK.



Call 901.866.8580 or Email utlasik@uthsc.edu to schedule your complimentary screening.

930 Madison Avenue, 2nd Floor, Memphis, TN 38103
901.866.8580 | utlasik@uthsc.edu

Kourtney Houser, MD



CELEBRATION *of* LIFE

The past two years have been difficult for the Hamilton Eye Institute (HEI) as we lost two of the most crucial figures whose shared vision led to the institute's creation: Founder, Ralph S. Hamilton, MD, and Inaugural Director and Chair, Barrett G. Haik, MD, FACS. To honor their memories, on Friday, October 27, 2017, a tribute to their lives and legacies was celebrated at HEI.

Dr. Ralph S. Hamilton died on August 14, 2017. A visionary ophthalmologist whose career in Memphis spanned more than half a century, Dr. Hamilton saw the need for an eye institute in Memphis and spearheaded fundraising efforts to accomplish this dream. Dr. Hamilton was a teacher and mentor to many. Others knew him as family, colleague, physician, or friend. Dr. Ralph Hamilton was so much to so many — a true Renaissance man.

Dr. Barrett Haik died suddenly and unexpectedly on July 22, 2016. Through the vision of Dr. Hamilton, Dr. Haik was recruited in 1995 to chair the Department of Ophthalmology at the University of Tennessee Health Science Center. Dr. Haik's tireless work and dedicated leadership transformed the department into the world-class Hamilton Eye Institute. Through the generosity of Dr. and Mrs. Jerre Freeman, a bronze bust of Dr. Barrett Haik was unveiled during this celebration.

More than 150 of Drs. Hamilton and Haik's dear friends, colleagues, grateful patients and family gathered in the lobby of the Hamilton Eye Institute for the celebration. Many shared their most cherished memories of Drs. Hamilton and Haik to honor their life and legacy. We salute the lives and continuing legacies.

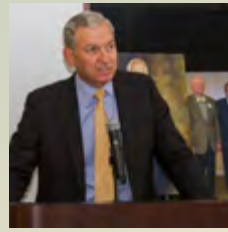




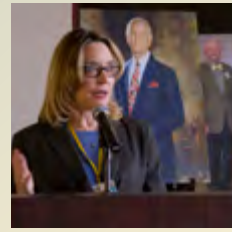
Steve Schwab, MD



Hallam J. Boyd Jr.



Gary S. Shorb



Natalie C. Kerr, MD



James C. Fleming, MD



Stephen Reynolds



George S. Ellis Jr., MD



The unveiling of Dr. Haik's Bust



From Left: Dr. Fleming, Gus McIlhenny, Dr. Freeman & Dr. Ellis



Awards & Achievements



Dr. Fleming Awarded TMA

In April, The Tennessee Medical Association awarded the Outstanding Physician Award to the Director of the Hamilton Eye Institute (HEI) at the University of Tennessee Health Science Center (UTHSC), James C. Fleming, MD, FACS. The organization's House of Delegates awards this honor to "TMA member physicians who, during the course of their careers have made a distinctive mark on the profession of medicine, their colleagues and their communities."

A native Memphian, Dr. Fleming is a member of a large medical family. There are nine members of the family who have become physicians and another is currently in medical school. "I was exposed to medicine early in life and my older brothers, were great examples," said Dr. Fleming.

As a teenager, Dr. Fleming was diagnosed with uveitis, a type of inflammation in the eye. This was his introduction to the field of ophthalmology, the field that he eventually pursued.

Since then, Dr. Fleming has been recognized on multiple occasions by "Best Doctors in America" and has received several awards nationally and locally. He has volunteered his surgical experience traveling with the World Cataract Foundation and ORBIS International to perform procedures to the disadvantaged. During the length of his career, he has presented over 110 lectures nationwide and internationally and has authored or coauthored over 100 articles in peer-reviewed journals.

Dr. Fleming is the Philip M. Lewis Professor of Ophthalmology and former Chair in the Department of Ophthalmology in the college of Medicine at UTSHC. He began his career at UTSHC in 1997 after being recruited by the late founder of HEI, Barrett Haik, to lead the oculoplastic services.



Dr. Claire Kiernan (second from left)

AAO Mid-Year Forum

Hamilton Eye Institute's first-year resident, Claire Kiernan, MD, participated in the AAO Mid-Year Forum's Advocacy Ambassadorship program in Washington, DC, this spring. Dr. Kiernan and multiple ophthalmologists were able to meet with members of Congress to discuss issues that affect patients and practice. These issues included drug pricing, timely access to compounded and repackaged drugs, and NIH eye research funding, among several other topics. Dr. Kiernan enjoyed this amazing educational experience. She appreciated the leadership and networking opportunity and is thankful for the Tennessee Academy of Ophthalmology's support.

Pre-American Academy of Ophthalmology (AAO) Pediatric Ophthalmology at the Big Easy

In 2015, George Ellis, MD, Director of Pediatric Ophthalmology Children's Hospital of New Orleans, held the first Pre-AAPOS meeting at the American Academy of Ophthalmology. The meeting was so well received that it encouraged all to continue with annual meetings. The pre-meetings give the attendees a presentation forum and interactive discussion of their area of interest. These topics can range widely, stimulating active and meaningful communication that keeps the audience updated on the topic as well as the thought processes and backgrounds of the topic. HEI's faculty who attended and spoke at the 2017 meeting on November 10 were Drs. Natalie C. Kerr., Mary Ellen Hoehn, Lauren Ditta and Ayman Suleiman.



*Brad Baker (right), CEO
Mid-South Lions Club
presents award to Dr. Fleming*

Dr. Fleming inducted into the L.B. Baker Hall of Fame

On September 16, at the 75 Years of Miracles Celebration for the Mid-South Lions, James C. Fleming, MD, FACS, Philip Professor and Director of Ophthalmology at UT Health Science Center, was inducted into the L. B. Baker Hall of Fame, the highest honor awarded by the Mid-South Lions. The award was named for L.B. Baker, past president of the Mid-South Lions, who passed away in March of 2006. He was inducted as the first member of the Hall of Honor in 2003.

Outreach



Ivan Marais, MD

First Annual Ivan Marais Cataract-A-Thon

On Friday, June 2, 2017, the first Annual Ivan Marais Cataract-A-Thon was held at the Hamilton Eye Institute Surgery Center. Multiple organizations and sponsors came together to provide vision-restoring procedures to uninsured citizens to honor the life and legacy of Dr. Ivan Marais, who was a leading ophthalmologist and instructor in modern cataract surgery. After participating in medical outreach programs in Panama, Ghana, and Guatemala, Dr. Brian Fowler had a vision to serve the people in his home country. Patients from Arkansas, Mississippi, Missouri and Tennessee were organized by the Hamilton Eye Institute Lions Club and the Mid-South Lions to travel to Memphis where surgeons and residents provided screening, comprehensive eye exams, surgeries and follow-up care, in conjunction with the incredible volunteers from the Southern College of Optometry.

Cataracts are a leading cause of blindness due to a clouding of the eye's lens and can be remedied with a simple procedure. "I am not a cataract surgeon but chose cataracts because we can make the biggest impact for the most people," said



Dr. Fowler. Over 30 surgeries were performed with the dedication of Dr. Emily Graves, a cataract surgeon from Duncan Eye, and her team of doctors, including Drs. Elliot Kanner, Kristin Duncan, and Aaron Waite. Joining together, Baptist Memorial Hospital and Methodist Hospital provided a team of nurses and anesthesiologists for the event. Several institutions such as Alcon, Novartis, Cardinal Health, and ImprimisRX lent their support by donating necessary surgical supplies and medications. The American Society of Cataract and Refractive Surgery generously financed the event. The Hamilton Eye Institute is extremely grateful for all those who sponsored and volunteered their time that day. Dr. Fowler said, “The clearest benefit of the event was hearing multiple patients, with tears in their eyes, telling volunteers they were seeing their families’ faces for the first time in years.”





Outreach Initiatives in Haiti and Ethiopia

Dr. James Chris Fleming and Jeff Bennett, ophthalmology equipment repair specialist with 2M Medical Solutions, traveled to Port au Prince, Haiti in August 2017. During their stay, they participated in meetings with the Director of the Hospital de Universite d'Etat d'Haiti (HUEH) and representatives of several surgery centers and clinics from Christian Blind Mission (CBM), the National Committee for the Prevention of Blindness in Haiti (CNPC) and Haiti Medical Missions.

Dr. Fleming and Mr. Bennett laid the foundation for future collaborations by connecting the Director of the University via telecommunications to Hamilton Eye Institute (HEI) Grand Rounds, a successful teaching tool held every Friday afternoon that presents medical problems and treatments to an audience of doctors, researchers, residents, and medical students. Mr. Bennett was able to repair significant surgical and clinical ophthalmic equipment that was in disuse due to the lack of local specialized technicians. His goal is to implement a training program to teach others how to repair specialized equipment in Haiti. In addition to the training program, Dr. Fleming was able to evaluate several patients at the St. Vincent's School for Handicapped Children.

With 10 million people living in Haiti, there are only 75 ophthalmologists and productivity declined due to the impact of earthquakes and hurricanes on surgical facilities. Officials from the HEI, World Cataract Foundation (WCF), CBM, CNPC and Haiti Medical Missions are partnering to improve infrastructure and efficiency in existing surgery centers.

On November 16, 2017, Drs. Fleming, Aaron Waite (clinical faculty, Utah), Dr. Cale Hildebrand (HEI 2nd-year Resident) and Dr. John Van Dyck, one of WCF mission ophthalmology surgeons skilled in the SICS technique, participated in the first annual Cataract-A-Thon in Haiti. The event took place at the International Grace Children's Hospital in Port-Au-Prince. Over thirty cataract surgeries were provided to local Haitians who would have otherwise lacked the financial means to undergo the procedure. Two surgery tables were set up to provide phaco and small-incision cataract surgery (SICS), as well as a teaching station that allowed local residents to view live surgery footage from a monitor. The ophthalmic surgeons from the U.S. and Haiti performed surgeries jointly. Dr. Mike Maingrette, President of CNPC, and his supportive team members provided invaluable guidance for this successful event.



HEI Resident, Dr. Cale Hildebrand examines patient in Haiti



Cataract-A-Thon Haiti Team



Dr. Waite with grateful patient in Haiti



Dr. Fleming and Dr. Tara Goecks, 2017 Oculoplastics Fellow, perform surgery in Ethiopia

Dr. Fleming also traveled to Addis Ababa, Ethiopia in May 2017 to visit with Dr. Scott Lawrence, HEI graduate and Associate Professor of International Ophthalmology. With one ophthalmologist for every one million people in Ethiopia, the need for eye care and physician training is overwhelming. Of the population, 1.6 million people are blind and 2.5 million are debilitated with low vision from preventable and treatable causes. Dr. Lawrence invited HEI and WCF to support his efforts to establish the Discover Eye Institute, an innovative center of excellent eye care in Addis Ababa. During his visit, Dr. Fleming evaluated more than 30 patients and trained a number of staff and residents through lectures and teaching clinics. Biannually, HEI will bring training to two institutions, St Paul's Hospital ophthalmology residency and Sight for Souls Eye Institute in Addis Ababa. In 2018, future collaborations between physicians of the University of Michigan and the Himalayan Cataract Project will expand teaching and outreach missions.

Guatemala City Outreach Mission

In the fall of 2017, Hamilton Eye Institute faculty Natalie Kerr, MD, Brian Fowler, MD, alumna Emily Taylor Graves, MD, and resident Cody Richardson, MD, successfully assisted in a sight-saving outreach trip in Guatemala by providing oculoplastic and strabismus surgeries for underserved children. The Hamilton Eye Surgery Center provided the surgical support of nurses and anesthesiology staff and partnered with Le Bonheur Children's Hospital anesthesiologist Liliana Pereira, MD. Additional team members included OR techs Stephanie Lenn, Jennifer Hamilton, and Deborah McNeill-Stroupe. HEI would like to express its deepest gratitude to The Shalom Foundation and its founder, Steve Moore; Dr. Ligia Figueroa, Dr. Ana Lucia Asturias, attending pediatric ophthalmologist at Unidad Nacional de



Dr. Cody Richardson (second from right)

Oftalmologia, and the team at the Moore Pediatric Surgery Center in Guatemala City. We are grateful for the Hamilton family, who provided priceless support, and for Alcon, Ethicon, Biogel, Beaver-Visitec International, MAP International and Poriferous, who graciously donated medical supplies, as well as all other sponsors, donors and volunteers.

Over 100 children were screened and 93 surgeries were performed during the week. The support from the local hospital was phenomenal, as numerous volunteers translated and provided assistance in moving patients and beds, consoling the children, as well as preparing meals every day. Those involved will forever cherish the memories of seeing thankful families and the grateful expressions that required no translation.

Recognition for Fundación ProVision 20/20 in the Republic of Panama

Ernesto A. Calvo, L., MD, Hamilton Eye Institute (HEI) Clinical Associate Professor of Ophthalmology and Ruben Orillac, MD Founder of the Clínica de Ojos Orillac-Calvo in Panama were recently recognized by the Comisión Nacional Pro Valores Cívicos y Morales in October 2017 in Panama City, Republic of Panama for their years of service with humanitarian efforts to restore sight to individuals during mission trips over the course of twenty years. Dr. Calvo has been a part of the eye doctor's team in Panama for surgical mission trips providing time and skills to help children with problems such as ptosis or lazy eye and strabismus or crossed eyes. Additionally, through the Rotary Club, Drs. Orillac and Calvo coordinate an annual Barrett G. Haik, MD Cataract-a-Thon for underprivileged patients at their surgery center in Panama. Dr. Calvo says, "It is easy to reach high when you are standing on the shoulders of giants



Dr. Ernesto A. Calvo (right) with Dr. Barrett G. Haik (left)



Dr. Calvo (top row, third from left) and Dr. Orillac (top row, fourth from left)

like Barrett G. Haik and Thomas Ford," Executive Director of "Ninos Sanos, Ninos Felices" program of the Fundación Pro-Integración.

In Memoriam:

Ivan Marais, MD

Ivan Marais, MD, a pioneer in phacoemulsification, instructor and mentor passed away on April 5, 2017. Dr. Marais was invited to perform the world's first multifocal lens implant. Following the successful outcome of this new procedure, Dr. Marais was invited to many cities around the world to advise ophthalmologists on case selection, techniques and problem solving.

Recruited to UTHSC by Dr. Barrett G. Haik more than a decade ago, Dr. Marais was an instructor at the Hamilton Eye Institute (HEI) who trained our residents in cataract and anterior segment surgery. Each week, Dr. Marais dedicated countless hours providing indispensable knowledge and surgical technique to young ophthalmologists at HEI's Jim and Virginia McGehee Skills Transfer Center. This state-of-the-art training center features an array of highly advanced training modalities, including a virtual reality surgical simulator workstation and both direct and indirect ophthalmoscope simulators, yet the single most valuable resource in the center was Dr. Marais himself. In addition to his priceless knowledge from a lifetime of experience as one of the world's finest anterior segment surgeons, Dr. Marais also continually expanded his knowledge of current developments and new techniques so he could provide residents with the most up-to-date and advanced methods for providing the finest eye care possible.



J. Thomas Ford Memorial

J. Thomas Ford, executive director of "Ninos Sanos, Ninos Felices" program of the Fundacion Pro-Integracion passed away on June 3, 2017. The Hamilton Eye Institute (HEI) faculty, residents, and fellows have collaborated with Mr. Ford on numerous mission trips over the years volunteering their skills on complex pediatric cases. In turn, he offered this opportunity to the fellows and residents at HEI. Mr. Ford was characterized by his altruistic work in Panama focusing on the underprivileged. He assisted in giving sight to hundreds of children with eye problems and helped save hundreds or thousands of lives through his actions and service for decades. We are truly grateful and humbled for the privilege of having known and learned so much from this wonderful human being. We will miss him and keep him in our thoughts as we attempt to carry on the legacy he left behind.

Research

Welcome Siamak Yousefi, PhD



We welcomed Dr. Siamak Yousefi, PhD, to our Hamilton Eye Institute (HEI) team this year. Dr. Yousefi received his PhD in Electrical Engineering from the University of Texas in 2012. He trained as a postdoctoral fellow at the Neural Signal Processing Laboratory at the University of California Los Angeles and completed postdoctoral training at the University of California San Diego where he went on to become a research scientist and an adjunct professor.



As an avid scientist on retinal data mining, machine learning, and biomedical image analysis, he has published over 50 peer-reviewed articles, conferences and abstracts, and made over 20 international lectures on these topics. His areas of interest in research are bioinformatics, computational ophthalmology, and computational biology. Dr. Yousefi's future goals are to pursue research in mining large-scale data regarding ocular diseases, create precise and personalized treatments inferred by Radiogenomic data, expand research in biomedical data mining and machine learning, as well as advance research in Deep Learning.

His recent studies have focused on actively developing machine learning methods and biomedical data that addresses vision and ophthalmologic problems related to Glaucoma. He has created several computer-aided algorithms to predict the onset and the progression of the disease from over 15 years of accumulated data. Other past projects involve introducing a new class of MRF called Bilateral Markov Random Field (BMRF) that overcomes limitations of the traditional MRF, collaborations in developing a Neuroimage Processing Toolkit (NPTK), and working on Brain-Computer Interface (BCI) that studies the visual system and its interaction with the visual cortex of the brain.

Dr. Yousefi is also a visiting research professor at the University of Tokyo.

Ocular Oncology Shares Expertise, Garner Recognition

The past year has been one of garnering awards and sharing expertise for the Ocular Oncology and Immunology Translational Unit and its leaders Dr. Matthew Wilson, Director of the Ocular Oncology Service at the Hamilton Eye Institute (HEI) and Assistant Professor Dr. Vanessa Morales-Tirado. The Unit, a component of the University of Tennessee Health Science Center (UTHSC)/West Institute, is charged with providing cancer treatment for patients from UTHSC, West Cancer and Methodist University Hospital. With laboratory space at the HEI under the direction of Dr. Morales-Tirado, members of the group participate in a variety of forums to share knowledge while also increasing program funding.

“We share our research through speaking at conventions and publishing,” says Dr. Morales-Tirado. “This can open doors to collaborations with other researchers while helping to secure additional donor funding. We believe that a key part of our mission as researchers is to provide opportunities for the next generation of scientists as they forge their own careers.”

Presentations are a key component in sharing the group's expertise. Drs. Wilson and Morales-Tirado gave presentations at the 2017 International Society of Ocular Oncology meeting in Australia on their newest findings on retinoblastoma and uveal melanoma. Members of the group participated in the 2017 Association for Research in Vision and Ophthalmology (ARVO) meeting, where seven presentations were given and two sessions were moderated.

From a research perspective, funded projects enable group members to advance their research interests. The Unit has established collaborations with faculty at UTHSC, St. Jude Children's Research Hospital, the Ocular Pathology Laboratory at Emory University, the University of Puerto Rico, the Hebrew University in Jerusalem, and the Hadassah Medical Center in Israel.



Awards received in 2017 include: Zachary Goldsmith for a Fight for Sight Summer Fellowship, St. Baldrick's Summer Fellowship and UTHSC/Neuroscience Institute Travel Award for ARVO; William Coppess for The Knights Templar Travel Award for ARVO; Caroline Awh for the NIH Medical Student Research Fellowship; visiting graduate student Aileen Garcia-Vargas for the Minority Biomedical Research Support- Research Initiative for Scientific Enhancement (MBRS-RISE) Award; and an award to Dr. Morales-Tirado from The William and Ella Owens Foundation.

One promising recent event was establishing a new collaboration with a pharmaceutical company to translate the Unit's retinoblastoma research in the laboratory to a clinical application.

New funding is certainly important, but donations by existing friends are also critical. The Bradshaw family from Montgomery, Alabama, continued their support for the Ocular Oncology Fund by donating an additional \$12,000 in 2017 from their established Annual Memorial Golf Afternoon in honor of business and civic leader Charles A. Bradshaw. The family, who was profiled in Hamilton Eyelights in 2016, is committed to helping fight uveal melanoma, and their continued support, as it is with all funders, is critical. Drs. Wilson and Morales-Tirado are carrying forward Dr. Barrett Haik's commitment to research and service, and their accomplishments stand on the foundation built by Dr. Haik, and the founder of HEI, Dr. Ralph Hamilton. Patients, families, and others can support oncology research, including tissue donations to the Tissue Repository for the group to learn and understand uveal melanoma, by donating to the UT Ocular Oncology Research Fund. Interested individuals may contact (901) 448-4974 or giving@uthsc.edu for more information.

Grant Awards



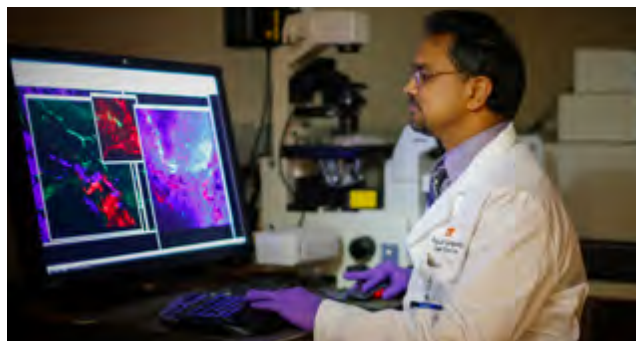
Dr. Gangaraju Receives \$1.5 Million Grant

In December 2016, a \$1.5 million grant was awarded to Dr. Rajashekhar Gangaraju, PhD, at the Hamilton Eye Institute of Tennessee from the United States Army

Medical Research Acquisition Activity. This grant will aid in the development of stem cell-based therapeutics for retinal damage caused by posttraumatic brain injuries.

Stem cells derived from human adipose tissue are known to secrete proteins that are neuroprotective. Dr. Gangaraju's team of researchers will determine whether these proteins can stop retinal damage related to blast causing traumatic brain injury (TBI). Stem cell-based therapeutics will address the underlying neurodegeneration in many injury related cases by focusing on inflammation, a major factor in observed neurodegeneration. These findings could

significantly affect the lives of military service members and their families by improving and preserving vision and preventing further damage while in turn increasing their quality of life. The funds for "Adipose Derived Stem Cells Alleviate Visual Deficits in Blast Injury," will be distributed over the course of three years and may be a clinical practice within 10 years.



Dr. Lenin Receives International Retinal Research Foundation and Neuroscience Institute Awards

The International Retinal Research Foundation (IRRF) has awarded Dr. Raji Rajesh Lenin the Alston Callahan, MD Postdoctoral Scholar Award in Basic Science for 2017-2018. This award is given in honor of the late Dr. Callahan who played a critical role in the development of the IRRF, and whose vision was to strengthen the pool of scientists possessing skills for independent research. Dr. Lenin will work under the mentorship of Dr. Gangaraju for the project entitled, "Diabetic Retinopathy - Inflammation passing the baton to Endoplasmic reticulum (ER) Stress." The project focuses

on elevated blood sugar causing stress on blood vessels that can escalate into blindness. The study's goal is to reduce inflammation from ER stress linked inciting retinal vasculature damage and the development of proper folding and maturation of misfolded proteins providing new therapies for diabetes.

Dr. Lenin has also received institutional postdoctoral fellowship from UTHSC's Neuroscience Institute.



Dr. Mandal Published in ASBMB's Journal of Lipid Research

Dr. Nawajes A. Mandal, UTHCS, and Dimitrios Karamichos, collaborated on a study of keratoconus. They found that sphingolipids were more prevalent in keratoconus cells than normal cells indicating they were interrelated. Normal cells were then treated with a ceramide and sphingosine-1-phosphate, which caused normal cells to become more like keratoconus cells with high levels of profibrotic genes. Once they blocked ceramide synthesis with a potent inhibitory drug, the cells became more like normal cells with lower levels of profibrotic genes. This study led to the discovery of the sphingolipid's relation to the disease and how this information may be used in the treatment of corneal disease. This enlightening study can be found in July 2017's issue ASBMB's journal of Lipid Research.

Dr. Mandal Receives RPB/SNF and CORNET Awards

In June 2017, Dr. Nawajes Mandal, PhD, Associate Professor in the Department of Ophthalmology, was selected to receive the International Collaborators Award granted by the Research to Prevent Blindness/Stavros Niarchos Foundation. This award is intended to support research collaborators nationwide in order to obtain skills and knowledge to advance the development of treatments for blinding eye diseases. The prestigious award of \$75,000 will aid in Dr. Mandal's collaborative research with Dr. Hiroshi Tomita, a Professor of Visual Neuroscience at Iwate University in Morioka, Japan. The research objective is to develop an anti-ceramide gene therapy that could prevent further damage caused by irreversible blinding diseases, including Retinitis Pigmentosa, cone-rod dystrophy, age-related Macular Degeneration, and Glaucoma.

Dr. Mandal also received the UTHSC Collaborative Research Network Award in June 2017. This grant will forward the mission to prevent and delay blindness caused by Retinitis Pigmentosa. He formed a team with the help of Dr. Harry Kochat, at Plough Center, with three drug development experts, Drs. Dilleep Janagam Reddy, Bivash Mandal, Nivesh Mittal, and Dr. Lynda Wilmott a postdoctoral fellow in Dr. Mandal's lab for formulation testing. Also on the project is Dr. Edward Chaum for expert retinal degenerative consultation, and Dr. Ryan Yates for drug formulation and PK study designs. We congratulate Dr. Mandal's accomplishments this year and are eager to learn from his research findings.



Faculty Listing

HAMILTON EYE INSTITUTE'S FOUNDERS



Barrett G. Haik, MD, FACS
September 8, 1951 – July 22, 2016



Ralph S. Hamilton, MD
November 25, 1929 – August 14, 2017

FACULTY



James C. Fleming, MD, FACS
HEI Director



Richard D. Drewry, Jr., MD, FACS,
Emeritus



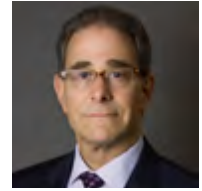
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Dianna A. Johnson, PhD
Emeritus



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Edward Chaum, MD, PhD



Natalie C. Kerr, MD, FACS



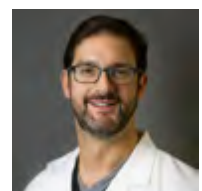
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Jorge I. Calzada, MD



Mary Ellen Hoehn, MD



Lauren C. Ditta, MD



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Rajashekjar Gangaraju, PhD



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Siamak Yousefi, PhD



Thomas J. O'Donnell, MD



Elliott M. Kanner, MD



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Brian M. Jerkins, MD



Shiva A. Bohn, MD



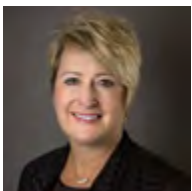
Vanessa M. Morales-Tirado, PhD



Stephen Huddleston, MD



Emily Prouet, MD



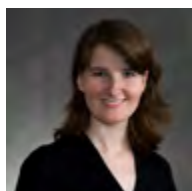
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Nawajes Mandal, PhD



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Kendra D. DeAngelis, MD

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 Sarah Duhon Queck, MD
 Cody Richardson, MD
 Elizabeth Rosenberger, MD
 Devin West, MD

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 Jon "Cale" Hildebrand, MD
 Josh Little, MD
 Matt Hartman, MD
 Whitney Potter, MD

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 Craig Thiessen, MD
 Eric Sollenberger, MD
 Rutviben Patel, MD
 Stephen Dryden, MD

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 Matthew W. Wilson, MD, FACS
 Brian T. Fowler, MD,
Vice Chair of Clinical Operations

COMPREHENSIVE OPHTHALMOLOGY

William R. Morris, MD
 Jesse M. Wesberry, MD, FACS

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GLAUCOMA

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 Brian M. Jerkins, MD

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 Lauren C. Ditta, MD

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 Mary Ellen Hoehn, MD
 Shiva Bohn, MD
 Lauren C. Ditta, MD
 Kathryn Byrd, MD

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 Jorge I. Calzada, MD

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 Orli M. Weisser-Pike, OTR/L, CLVT, SCLV

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Robert C. Binkley, OD

ORTHOPTICS

Chantel Devould, CO, COA
 Miriam Di Menna, CO

Upcoming Events

HEI & SCO's 5th Annual Montgomery/Cochran Joint Meeting

Friday, March 23, 2018, 12pm – 1pm
at Freeman Auditorium, Hamilton Eye Institute featuring 5th Annual John C. Montgomery, Sr., MD Distinguished Visiting Professor:

Sumitra Khandelwal, MD,
*Cornea, Cataract & Refractive Surgeon
Assistant Professor, Department of Ophthalmology, Baylor College of Medicine, Houston, Texas*

William "Billy" Cochran Visiting Scholar:

Lt Col Christopher M. Putnam, OD, PhD
United States Air Force, BSC Deputy Chief, Bioeffects, Division Commander, Detachment 5, Houston, Texas

The 47th Annual Alumni/Residents' Day and George K. Kambara, MD Distinguished Visiting Professorship Lecture

Friday, June 8, 2018 at Freeman Auditorium, Hamilton Eye Institute

Robert W. Enzenauer, MD, MPH/MSPH,
*Pediatric Ophthalmologist, Professor
Ophthalmology, University of Colorado School of Medicine*

The 2nd Annual Ivan Marais, MD Cataract-A-Thon

Friday, June 15, 2018 at Hamilton Eye Institute Surgery Center

The 21st William N. Williford, MD Distinguished Visiting Professorship

Thursday, October 18, 2018 at Freeman Auditorium, Hamilton Eye Institute

Ibrahim AL-Nawaiseh, MD
Associated Member at King Hussein Cancer Center, Chief of Ophthalmology at Ibn Al-Haytham Hospital, Director, Jordan-German Eye Center

HEI Grand Rounds Worldwide Webcast

First, Second & Third Monday of the month, 1:15PM CDT (U.S.) Contact heiacademic@uthsc.edu to subscribe



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For more information about these events, please contact heiacademic@uthsc.edu

Find recent publications by our faculty at pubmed.gov

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