

focus on service: DMEI's Talented Team of Retina Specialists Provides Expert Care













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A PUBLICATION OF THE DEAN MCGEE EYE INSTITUTE

patient care education vision research leadership service

DMEI clinical directory

Oklahoma Health Center

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Pediatric Ophthalmology and Strabismus Maria E. Lim, MD**

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Comprehensive Ophthalmology/Cataract and Ophthalmic Surgery/Premium Cataract

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Retina/Vitreous

Vinay A. Shah, MD

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Medical Director: Robert J. Christensen, MD

Dean McGee Eye Institute

Home to the Department of Ophthalmology of the University of Oklahoma College of Medicine

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The Dean McGee Eye Institute is dedicated to serving all Oklahomans and the global community through excellence and leadership in patient care, education, and vision research.





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WINTER 2021

THIS ISSUE

invisions

2 leadership's views

- Gregory L. Skuta, MD
- R. Michael Siatkowski, MD, MBA

6 news

- Dr. Mahmoud A. Khaimi Awarded James P. Luton, MD Endowed Chair
- Dr. Vinay A. Shah Is Inaugural Recipient of Thelma Gaylord Endowed Chair
- Two DMEI/OU Department of Ophthalmology Faculty Members Honored
- Readers' Choice Awards for DMEI
- 20 DMEI Ophthalmologists Recognized as Best Doctors in America and/or Castle Connolly Top Doctors
- 7 Myths and Realities about DMEI
- DMEI Recognized as One of Nation's Top Eye Institutes on Social Media
- Dr. Victoria A. Bugg to Join DMEI Comprehensive Ophthalmology Faculty

- 15 faculty & staff
 Dr. Ben J. Harvey Recognized among Oklahoma Magazine's "40 Under 40"
 - 2020 Employee Service Awards
 - Contact Lens Services Readily Available at
 - Faculty Members Serve as Oral Board Examiners in 2020
 - COVID-19 Update
 - Meet Another DMEI Centenarian
 - Faculty & Staff Awards and Activities

donors

24 philanthropy update

- Remembering Mike Samis
- Dr. Cynthia A. Bradford Becomes New DMEI Board of Directors Physician Advisory Representative
- Chris Fleming Is New DMEI Foundation Board of Directors Chair
- DMEI Continues Partnership with OKC
- Consider a Gift for the Future
- Noble Foundation Helps Advance DMEI's Research in Retinal Degenerations
- DMEI Recognizes Generosity of Donor
- Friends Honor Laurence D. Lucas' Memory

invisions

32 research

- Presbyterian Health Foundation Grants
- Research Faculty—Dept. of Ophthalmology
- Erin T. Livingston, PhD Candidate
- Emerging Vision Scientist, Kevin K. Fuller, PhD, Educates and Advocates Virtually

35 education

- Resident Writers Award Program Honors Dr. Douglas H. Jin
- Save the Date: 45th Annual OU Resident and Alumni Meeting
- Dr. Annie Moreau Honored by OU College of Medicine
- Dr. Farzad Jamshidi Accepted into Alpha Omega Alpha Honor Medical Society
- New OU Health Adult Patient Tower
- Dr. R. Michael Siatkowski Delivers 18th Straatsma Award Lecture
- Virtual Grand Rounds with OKC Zoo's Head Veterinarian
- DMEI Ranked 19th in the Nation for Funding from National Institutes of Health
- Dr. Ralph B. Hester III Has Been Improving Patient's Vision at DMEI for 25 Years

feature focus

44 DMEI's Talented Team of **Retina Specialists Provides Expert Care**

last look

52 Vision without action..



The Preferred Eye Care Provider of the OKC Thunder

PICTURED ON FRONT COVER (top left to bottom right): Reagan H. Bradford Jr., MD, Stephen R. Fransen, MD, Ronald M. Kingsley, MD, Sun Young Lee, MD, PhD, Jila Noori, MD, and Vinay A. Shah, MD.

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Thank You FOR THE OPPORTUNITY TO SERVE

WHEN I ACCEPTED THE ROLE OF PRESIDENT/CHIEF EXECUTIVE OFFICER/DEPARTMENT CHAIR IN 2009, I expected

to serve for at least eight years and perhaps 10 to 12 years but always felt that the Dean McGee Eye Institute (DMEI) and the University of Oklahoma (OU) Department of Ophthalmology would then be best served by new energy, fresh ideas, and a rotation of leadership. I therefore announced last August my plans to retire from these leadership roles by the spring of 2021.

It has now been almost 12 years since I began my tenure of service in these positions (initially in an interim role beginning on April 1, 2009). During that time, we have faced a number of challenges on a national and international level, including the Great Recession in 2009 and the COVID-19 pandemic in 2020-2021. Nevertheless, everyone associated with the Institute and Department has faithfully helped to sustain and advance our organizational mission and sense of purpose, has persevered, and has collectively assembled numerous achievements of which all should be very proud.

I have enjoyed serving in these roles and am delighted by the appointment (effective March 1) of R. Michael Siatkowski, MD, MBA as DMEI's next chief executive officer and as the Edward L. Gaylord professor and chair of



Gregory L. Skuta, MD

the OU Department of Ophthalmology. I also congratulate Dr. John P. Zubialde, executive dean of the OU College of Medicine, and David E. Rainbolt, chair of the DMEI Board of Directors, for leading a successful selection process.

Many changes are underway on the OU Health Sciences Center (OUHSC) campus, including the opening of the new adult patient tower, an exciting transition to the Epic electronic health record, a restructuring of OU Medicine and OU Physicians into OU Health, and more. It is therefore logical and appropriate that a new and vigorous leader should have an opportunity to shape the future of the Institute and Department at this particular time in its illustrious history. Given that the Department and/or Institute have had only four leaders over the past 59 years and three over the past 49 years, this transition will provide continued stability with regard to organizational leadership and will be critical to the Institute/Department's future growth and success.

Dr. Siatkowski is an extraordinary pediatric and neuro-ophthalmologist, educator, clinical

researcher, and leader who has had a remarkable capacity to elevate all of the organizations with which he has engaged. Prior to joining the DMEI/OU faculty in 1999, he served on the faculty at the esteemed Bascom Palmer Eye Institute in Miami. Here at DMEI/OU, Mike has served in

As I have expressed on a

number of occasions. I have

had one of the best jobs in

the country with regard to

ophthalmology leadership

positions and feel honored

in these roles at DMEI/OU.

and privileged to have served

outstanding fashion as vice chair for academic affairs and residency program director for at least 10 years.

Dr. Siatkowski is a past president of the American Association for Pediatric Ophthalmology and Strabismus and the Program Directors Council of the Association of University Professors of Ophthalmology; a past director of the American Board of Ophthalmology;

and past vice chair of the Accreditation Council for Graduate Medical Education's Residency Review Committee for Ophthalmology. In 2020, he received the Straatsma Award for Excellence in Resident Education, the highest national honor that can be bestowed on an ophthalmology residency program director, as well as the Oklahoma Academy of Ophthalmology's Distinguished Service Award.

I intend to remain an active member of the Institute/Department and hope that I can continue to make meaningful contributions in a variety of ways. I certainly will do all in my power to ensure Dr. Siatkowski and the faculty's success in propelling this organization to even greater prominence and impact.

In addition, I will remain active on the Board of Trustees (or Directors) of the American Academy of Ophthalmology, Ophthalmic Mutual Insurance Company, and National Alliance for Eye and Vision Research/Alliance for Eye and Vision Research.

As I have expressed on a number of occasions, I have had one of the best jobs in the country with

regard to ophthalmology leadership positions and feel honored and privileged to have served in these roles at DMEI/OU. I also love the Dean McGee Eye Institute, everyone associated with it and the Department of Ophthalmology, and, most of all, the members of my family, who have selflessly supported me and my efforts here.

As I approach my 29th anniversary with the

Dean McGee Eye Institute/OU Department of Ophthalmology on July 1, I am incredibly grateful for life's abundance of professional opportunities and personal blessings. They have far exceeded any expectations that I may have had when I began my training as an ophthalmologist at age 26 in 1982.

Again, many thanks for the opportunity to serve and for your friendship and support.

With love, respect, and infinite gratitude,

Gregory L. Skuta, MD

Past President, Dean McGee Eye Institute

David W. Parke II, MD Professor

Regents' Professor and Past Chair

Department of Ophthalmology

University of Oklahoma College of Medicine

Continuing the Excellent Work of the Leaders Who Came Before Me



R. Michael Siatkowski, MD, MBA

AM EXTRAORDINARILY HUMBLED AND HONORED TO WRITE MY FIRST LETTER AS THE CEO of the Dean McGee Eye Institute (DMEI) and Chair of the Department of Ophthalmology of the University of Oklahoma College of Medicine. When my wife and I moved here almost 22 years ago, I could never have imagined that I would have this amazing opportunity. Back in 1999, as we drove from our seaside home in tropical south Florida to arrive in 110-degree heat and relatively little green foliage, I wondered what the future would hold. Now I can state without a doubt that

living in Oklahoma, raising our three children here, and working at DMEI has truly been a wonderful experience for my entire family.

We are all deeply indebted to Dr. Greg Skuta for his tremendous accomplishments. During his tenure, he presided over completion of the \$47-million David W. Parke II, MD Pavilion, and extensive remodeling of the Thomas E. Acers, MD Pavilion, along with doubling of our research space and renovation of our research facilities. Our doctors now provide approximately 200,000 patient visits and perform almost 11,000 surgeries annually. Our outstanding provider force has increased with 17 new ophthalmologists and 4 new optometrists. We have recruited 7 new outstanding vision scientists, and among public universities, our research funding from both the National Institutes of Health and Research to Prevent Blindness is in the top 10 nationally. Our nationally recognized residency program has expanded from 3 to 5 trainees per year, and we have established new fellowship positions in retinal disease and global ophthalmology. DMEI doctors have risen to leadership positions in at least 10 different state or national organizations, and have received almost four dozen major awards for their teaching, research, and service. Under Greg's leadership, DMEI has clearly flourished, and I am delighted that he will continue to be a member of our faculty. His wisdom and experience will be vital to me,

and to all of us, as we continue to advance the mission of DMEI.

Paul A. Sieving, MD, PhD, former Director of the National Eye Institute, has publicly referred to DMEI as a "national treasure"—and he's right. The most important asset of any successful organization is its people, and DMEI is truly blessed in this regard. Our doctors provide cutting-edge,

compassionate care with superb outcomes. Our researchers are brilliant, and have achieved both national and international prominence as they strive to combat visual loss. Our medical students, residents, and fellows are among the brightest young men and women in the nation, and will make certain that the future of our profession is strong.

The most important asset of any successful organization is its people, and DMEI is truly blessed in this regard.

I cannot say enough about the DMEI staff. From the people who make our facilities look beautiful and work well, to those who strive to make the patient experience efficient and effective, to those who support our providers in the clinic, the operating room, and the office, to those who make sure our business operations run effectively, we have recruited some of the best anywhere. I'm grateful to them all, and proud of all the good things they do day in and day out.

We are fortunate to have wonderful leadership from above as well. The Boards of Directors of DMEI and the DMEI Foundation are comprised of highly accomplished, selfless men and women who have spent their lives improving our city and our state. Similarly, our leaders at the College of Medicine and the new OU Health enterprise are wise and thoughtful individuals who have a true vision to make health care on our campus among the very best in the nation.

And, of course, most importantly, are our patients. Every effort we make is ultimately

to serve them and to improve their quality of life. All of us at DMEI hold this goal very close to our hearts as we go about everything that we do on a daily basis.

Following in the footsteps of Drs.
Tullos Coston, Tom
Acers, David Parke,
and Greg Skuta leaves
big shoes to fill. I am
truly honored to work
with all members of

the DMEI family, and wholeheartedly pledge our continued pursuit of excellence in patient care, medical education, and vision research, in honor of all Oklahomans and the global community.

R. Michael Siatkowski, MD, MBA

Chief Executive Officer
Dean McGee Eye Institute

Edward L. Gaylord Professor and Chair

David Ross Boyd Professor

Department of Ophthalmology

University of Oklahoma College of Medicine

MAHMOUD A. KHAIMI, MD AWARDED James P. Luton, MD Endowed Chair

THE DEAN MCGEE EYE INSTITUTE (DMEI) ANNOUNCED IN OCTOBER THAT DR. MAHMOUD A. KHAIMI, clinical

professor at DMEI and in the University of Oklahoma (OU) Department of Ophthalmology, has been awarded the James P. Luton, MD Endowed Chair in Ophthalmology.

Born in Amman, Jordan, Dr. Khaimi and his family settled in the Detroit metropolitan area (Southfield, Michigan) when he was five years old. He earned his undergraduate (summa cum laude and Phi Beta Kappa) and medical degrees from Wayne State University in Detroit and completed his residency in ophthalmology at Henry Ford Hospital, also in Detroit. After a glaucoma fellowship at DMEI/OU, Dr. Khaimi joined the faculty here in 2007 and has assembled an outstanding record as an educator and internationally respected glaucoma surgical innovator with an impressive level of scholarly and service activities. He is particularly well known for his personal development of the glaucoma surgical procedure known as abinterno canaloplasty (ABiC), for which he received The Journal Record's Innovator of the Year Award in August 2017.

Dr. Khaimi has authored or co-authored approximately 40 journal publications, book chapters, and clinical modules, including book chapters for such major textbooks as *Chandler and Grant's Glaucoma*, *Duane's Clinical Ophthalmology*, *Operative Complications of*



Mahmoud A. Khaimi, MD James P. Luton, MD Clinical Professor of Ophthalmology

Glaucoma, MIGS: Advances in Glaucoma Surgery, and Minimally Invasive Glaucoma Surgery: A Practical Guide. He also was the associate editor of a textbook published by Slack, Essentials of Glaucoma Surgery. In addition to his editorial role, Dr. Khaimi contributed five chapters to the book.

Dr. Khaimi's scholarly activities also have been reflected in presentations and abstracts at such major meetings as the American Academy of Ophthalmology (AAO), American Society of Cataract and Refractive Surgery, American Glaucoma Society, World Glaucoma Congress, European Society of Cataract and Refractive

in Ophthalmology

Surgeons, and Hawaiian Eye Meeting. He also has lectured in such international venues as Jordan, Saudi Arabia, Oman, Denmark, Portugal, Japan, Austria, and Australia. American academic centers in which he has delivered presentations include the University of Maryland, University of Alabama, Duke University, Henry Ford Hospital, University of Texas – San Antonio, University of Arkansas, and University of Louisville.

In addition to his scholarly contributions, Dr. Khaimi has been actively involved in the education of fellows, residents, and medical students, and has played a vital role in making DMEI's glaucoma fellowship one of the most competitive in the nation. He has served as DMEI/OU's glaucoma fellowship director since 2018 and, during his tenure at DMEI/OU, has already helped train 14 glaucoma fellows. In 2010, Dr. Khaimi received the Excellence in Attending Award at the Oklahoma City Veterans Affairs Medical Center.

Dr. Khaimi served as the chair of DMEI's Clinical Care Committee from 2009 to 2015. Since 2017, he has served as DMEI's "Lead Ophthalmologist" for the Oklahoma City Thunder NBA basketball team and previously served as "Associate Lead Ophthalmologist" for eight years.

Beyond his service to the Institute and Department, Dr. Khaimi joined the AAO's Knowledge Base Panel for Glaucoma, which contributed to the Practicing Ophthalmologists Curriculum, in 2012 and rose to become vice chair of the panel. For his Academy service, he received an AAO Achievement Award in 2017. Dr. Khaimi has repeatedly been named among the *Best Doctors in America* and *Castle Connolly Top Doctors*.

Dr. Khaimi's wife Suzie is the founding and current principal of the Oklahoma Islamic Academy. They have six children ranging in age from 5 months to 14 years old.

"Given his exceptional skills as a clinician educator, his contributions as a surgical innovator and scholar, his high level of commitment to our organizational missions, and a deep desire to make a difference in the lives of his patients, we are truly delighted to honor Dr. Mahmoud Khaimi with the James P. Luton, MD Endowed Chair in Ophthalmology," stated Dr. Gregory L. Skuta, DMEI's president and chief executive officer and the Edward L. Gaylord professor and chair of the OU Department of Ophthalmology at the time the endowed chair was awarded to Dr. Khaimi.

Established in 1998 and first held by Dr. Skuta, the James P. Luton, MD Endowed Chair in Ophthalmology will provide Dr. Khaimi with support to pursue educational, academic, scholarly, and service activities. ■

VINAY A. SHAH, MD IS INAUGUR THELMA GAYLORD ENDOWED



Vinay A. Shah, MD Thelma Gaylord Clinical Professor of Ophthalmology

IN NOVEMBER, THE DEAN MCGEE EYE INSTITUTE (DMEI) ANNOUNCED THAT DR. VINAY A. SHAH, clinical professor at DMEI and in the University of Oklahoma (OU) Department of Ophthalmology, has been named the inaugural recipient of the Thelma Gaylord Endowed Chair in Ophthalmology.

A native of India, Dr. Shah completed an extensive educational and training process there, including a residency in ophthalmology and a fellowship in vitreoretinal surgery. In 2002, he moved to the United States, where he was engaged in pre-residency fellowship experiences in vitreoretinal diseases and neuro-ophthalmology at the University of Florida –

Jacksonville and University of Iowa respectively. As a resident in ophthalmology at the University of Missouri – Kansas City (UMKC), Dr. Shah performed in stellar fashion, serving as chief resident during his final year there and being recognized with a special award as "The Best Resident Ever" for his contributions at UMKC as a "Leader, Educator, Researcher, and Clinician."

After his fellowship in vitreoretinal surgery at the Kresge Eye Institute/Wayne State University in Detroit, Michigan, Dr. Shah joined the faculty at DMEI/OU in 2011 and has distinguished himself as a respected leader as well as a highly productive and innovative clinician and surgeon with a particular interest in treating complex surgical retinal pathology. Dr. Shah has served as author or co-author for more than 80 publications and book chapters and has addressed a large number of topics in his scholarly work, including observations regarding vitreoretinal disease; techniques in vitreoretinal surgery; neuro-ophthalmologic disorders; resident surgical training in vitreoretinal surgery and refractive surgery; infections of the eye; and the use of smartphones in ophthalmology. He has published in numerous respected ophthalmologic journals.

As an educator, Dr Shah is widely recognized for his work as one of the creators of the *Eye Handbook*, a mobile comprehensive ophthalmology diagnostic reference and educational product developed for smartphones.

AL RECIPIENT OF CHAIR IN OPHTHALMOLOGY

With more than three million downloads, this has become a highly popular smartphone ophthalmology application for ophthalmologists in training and in practice. In addition, Dr. Shah has directed a long-running, highly popular instructional course at the American Academy of Ophthalmology (AAO) annual meetings on the use of smartphones in ophthalmic practice since 2012, a nearly record run. He also has served as senior editor for the international ophthalmology section of *Pearls in Ophthalmology*, an internet publication with tens of thousands of page views.

Even while a fellow at the Kresge Eye Institute, Dr. Shah became the founding section editor for retina/vitreous for the AAO's EveWiki, which was launched in July 2010. For his Academy service. Dr. Shah was honored with an AAO Achievement Award in 2010, a Secretariat Award in 2015, and a Senior Achievement Award in 2017. For his contributions to the scientific programs of the annual meetings of the American Society of Retina Specialists, Dr. Shah received its Honor Award in 2005 and its Senior Honor Award in 2007 (the latter while he was still a resident). In 2019, Dr. Shah was the inaugural recipient of the Amalia M. Miranda, MD Special Recognition Award at DMEI /OU. He has been repeatedly named among the Best Doctors in America.

At DMEI/OU, Dr. Shah has been actively engaged with residents and vitreoretinal fellows and became the retina fellowship director in

2017. In this capacity, he is currently overseeing an expansion of the retina fellowship program from one to two fellows. In 2018, he was the recipient of the E.L. and Thelma Gaylord Faculty Honor Award. Dr. Shah was elected by his peers to serve as a member-at-large on the DMEI Executive Committee in 2017 and was re-elected to a second two-year term in 2019.

Dr. Shah's wife, Dr. Kanan Shah, is a family physician with INTEGRIS Health. They have two teenage daughters.

"In recognition of Dr. Vinay Shah's extraordinary skills as a clinician, surgeon, educator, scholar, innovator, and leader, it is very meaningful that he should be honored as the first individual to hold the Thelma Gaylord Endowed Chair in Ophthalmology," stated Dr. Gregory L. Skuta, DMEI's president and chief executive officer and chair of the OU Department of Ophthalmology at the time the endowed chair was awarded to Dr. Shah.

The Thelma Gaylord Endowed Chair in Ophthalmology, which was established in 2020 after a gift from the E.L. and Thelma Gaylord Foundation, is the second endowed chair in the Institute/Department to carry the distinguished Gaylord family name. The other is the Edward L. Gaylord Endowed Chair, which is occupied by the chair of the OU Department of Ophthalmology.

Two DMEI/OU Department of Ophthalmology Faculty Members Honored

TWO MEMBERS OF THE FACULTY AT THE DEAN MCGEE EYE INSTITUTE (DMEI) WERE HONORED IN OCTOBER

by the Academy of Teaching Scholars in the University of Oklahoma (OU) College of Medicine. Dr. James C. O'Brien was selected as the recipient of a 2020 M. Dewayne Andrews, MD Excellence in Teaching Award in Graduate Medical Education (GME), and Dr. R. Michael Siatkowski was accepted and appointed as a faculty member in the OU College of Medicine's Academy of Teaching Scholars. Both hold full-time academic appointments in the OU Department of Ophthalmology.



James C. O'Brien, MD Assistant Professor

A native of
Texas, Dr. O'Brien
joined the DMEI/
OU neuroophthalmology
faculty as an
assistant professor
in 2018. He earned
his undergraduate
degree from the
University of Texas
at Austin and his
medical degree
from the University

of Texas Medical Branch at Galveston, where he was inducted into the Alpha Omega Alpha Honor Medical Society. He completed his internship at Houston Methodist Hospital, followed by a residency in ophthalmology at DMEI/OU. He served in outstanding fashion as chief resident during 2016–2017 and also completed a neuro-ophthalmology fellowship at DMEI/OU in 2017–2018.

At the time of this recognition, Dr. Siatkowski was the David W. Parke II, MD Professor of Ophthalmology, David Ross Boyd Professor, Vice Chair for Academic Affairs, and Residency Program Director at DMEI and in the OU Department of Ophthalmology. He held an OU Presidential Professorship from 2008 to 2012.

Dr. Siatkowski is a native of Pennsylvania and completed his undergraduate and medical degrees, internship, and ophthalmology residency in his home state. He has served on the DMEI/OU faculty since 1999 and was previously on the faculty of the University of Miami's Bascom Palmer



R. Michael Siatkowski, MD, MBA Professor

Eye Institute, where he completed fellowship training in neuro-ophthalmology and pediatric

ophthalmology/strabismus. He has over 180 publications and book chapters; has received numerous teaching and service awards; has held major leadership roles in multiple organizations; and has lectured widely throughout the world.

Dr. O'Brien is one of several members of the ophthalmology faculty to be recognized with an Andrews Excellence in Teaching Award in GME (residents and fellows), Clinical Education (medical students), and/or Preclinical Teaching (medical students). Recipients of these awards have included Drs. Annie Moreau (2), R. Michael Siatkowski, Brian K. Firestone, Andrew K. Bailey, Tammy L. Yanovitch, and Cynthia A. Bradford. ■



DURING A VIRTUAL EVENT HELD on

Thursday, August 27 and featuring James Corden, host of *The Late, Late Show,* the Dean McGee Eye Institute's (DMEI's) Optical Shops and the McGee Eye Surgery Center (MESC) were announced as winners in their categories in *The Oklahoman's* 2020 Readers' Choice Awards. DMEI's Optical Shops have now been Readers' Choice winners in four of the past five years, and MESC has been named a winner for three straight years (winner in 2018 and 2020 and co-winner in 2019).

20 DMEI Ophthalmologists Recognized as Best Doctors in America and/or Castle Connolly Top Doctors

- + Ann Acers-Warn, MD, MBA
- * Andrew K. Bailey, MD
- + John M. Bell, MD
- *+ Cynthia A. Bradford, MD
- *+ Reagan H. Bradford Jr., MD
- * Brian K. Firestone, MD
- *+ Layne E. Goetzinger, MD
- + Jean R. Hausheer, MD, FACS
- * Ralph B. Hester III, MD
- *+ David W. Jackson, MD
- *+ Mahmoud A. Khaimi, MD
- * Ronald M. Kingsley, MD
- *+ Annie Moreau, MD, FACS
- *+ Rebecca K. Morgan, MD
- * Vinay A. Shah, MD
- *+ R. Michael Siatkowski, MD, MBA
- *+ Rhea L. Siatkowski, MD
- *+ Gregory L. Skuta, MD
- *+ Deana S. Watts, MD
- *+ Tammy L. Yanovitch, MD, MHSc
 - * Best Doctors in America (2020 and/or 2021)
 - + Castle Connolly Top Doctors (2020)
- *+ Both

7 MYTHS AND REALITIES REGARDING DEAN MCGEE EYE INSTITUTE

WE WOULD LIKE TO ADDRESS SOME COMMON MYTHS OR MISCONCEPTIONS ABOUT THE DEAN MCGEE EYE INSTITUTE (DMEI) WITH EXPLANATIONS AND REALITIES.

MYTH #1. You must have an outside referral to see a doctor at DMEI.

REALITY #1. Although outside referrals are welcome and DMEI doctors have excellent relationships with many outside referral sources, patient self-referrals are also very welcome and encouraged for all DMEI doctors, including our comprehensive ophthalmologists/cataract surgeons, optometrists, and subspecialists (ophthalmologists subspecializing in cornea, glaucoma, LASIK and refractive surgery, low vision rehabilitation, neuro-ophthalmology, ocular oncology, oculoplastic surgery, pediatric ophthalmology, retina, uveitis, etc.).

MYTH #2. DMEI clinicians and surgeons see only very complex cases and do not provide more routine or primary eye care.

REALITY #2. DMEI serves patients for both routine and complex care. Among DMEI's nearly 40 doctors, 17 ophthalmologists and 6 optometrists provide primary eye care services at four different locations. Please see the "Clinical Directory" inside the front cover for more information.

MYTH #3. All patients must come to the Oklahoma Health Center near downtown Oklahoma City to receive their care from DMEI doctors.

REALITY #3. While DMEI has a beautiful, world-class facility on the Oklahoma Health Center campus, we also have outstanding clinical facilities in northwest Oklahoma City (near INTEGRIS Baptist Medical Center), Edmond (near the corner of 15th and Kelley), and Lawton (adjacent to Comanche County Memorial Hospital). In addition to comprehensive eye care at all four DMEI locations, subspeciality services such as retinal care, oculoplastic surgery, and pediatric ophthalmology are available in our satellite facilities. With regard to retinal care, DMEI retina specialists also see patients in Enid and Shawnee. At these multiple locations, DMEI doctors are honored to serve patients from all 77 Oklahoma counties as well as portions of Kansas, Missouri, Arkansas, Louisiana, Texas, and New Mexico.

MYTH #4. If I need cataract surgery, I need to go somewhere besides DMEI.

REALITY #4. DMEI surgeons perform more than 5600 cataract surgeries per year, including approximately 5000 cataract surgeries annually at the McGee Eye Surgery Center in the Oklahoma Health Center near downtown Oklahoma City. They also perform adult cataract



surgery at the OU Medical Center Surgery Center, INTEGRIS Baptist Medical Center, INTEGRIS Edmond, Comanche County Memorial Hospital in Lawton, and Southwestern Medical Center in Lawton.

MYTH #5. You are just a number when you come to DMEI.

REALITY #5. Although DMEI is a large, nationally prominent institution, we still work very hard to create a friendly, caring environment. Our doctors treasure their relationships with patients and their families. During 2019 and/or 2020, 19 of our doctors and providers achieved patient satisfaction scores in the top 12% nationally.

MYTH #6. You have to wait forever to get an appointment at DMEI.

REALITY #6. Although some individual DMEI doctors may have longer waits for scheduling appointments, as of February 1, 2021, 22 of our doctors had new patient appointments available within two weeks (and 17 of these within one week) and another seven had new patient appointments available within three weeks.

MYTH #7. DMEI does not provide special services like contact lens care, premium cataract surgery, LASIK and refractive surgery, corneal cross-linking for keratoconus, advanced dry eye treatments, or cosmetic procedures.

REALITY #7. DMEI provides all of the above services, including LipiFlow and Intense Pulsed Light treatments for dry eyes. Cosmetic procedures include eyelid surgery and skin resurfacing procedures. For more information on DMEI's many special offerings, please visit our website at *dmei.org*. ■

DEAN MCGEE RECOGNIZED AS ONE OF THE NATION'S TOP EYE INSTITUTES ON SOCIAL MEDIA

IN A REPORT PUBLISHED IN *OPHTHALMOLOGY BUSINESS MINUTE* in January 2021, the Dean McGee Eye Institute (DMEI) was cited among 51 academic ophthalmology institutions with a Facebook presence as the top Facebook account with the greatest number of likes (12,108 as of October 2020 and currently pushing 13,000)! We are grateful for all of our followers who have been part of this growth. If you are not yet following DMEI on social media, we encourage you to do so by finding us *@DeanMcGeeEyeInstitute* on both Facebook and Instagram. ■

Victoria A. Bugg, MD to Join DMEI Comprehensive Ophthalmology Faculty in 2021

THE DEAN
MCGEE EYE
INSTITUTE
(DMEI) HAS
ANNOUNCED
THAT VICTORIA
A. BUGG, MD
will join DMEI and
the University of
Oklahoma (OU)
Department of
Ophthalmology



Victoria A. Bugg, MD

in the fall of 2021 as a member of the comprehensive ophthalmology service and clinical assistant professor.

Dr. Bugg was born in West Lafayette, Indiana, where her father was on the engineering faculty at Purdue University. She grew up in Norman, Oklahoma and earned her bachelor's degree with special distinction in chemical engineering at OU–Norman. Her undergraduate honors included recognition as the "Freda Guild Outstanding Female in Chemical Engineering" and the Letzeiser Honor List, which is comprised of the 20 most outstanding graduating OU seniors.

Dr. Bugg received her medical degree (Alpha Omega Alpha Honor Medical Society) from the OU College of Medicine and also completed her internship in internal medicine at the OU Health Sciences Center. Currently, she is in her third year of ophthalmology residency at DMEI/OU and is also serving as chief resident. Dr. Bugg will complete her residency training on June 30. In 2019, she was nominated by third-year OU medical students for the Aesculapian Resident Teaching Award.

Dr. Bugg and her husband Blake Bugg, who is an attorney and works as a landman for Chesapeake Energy, have a son, Blake Jr., who celebrated his first birthday in December. She enjoys spending time with her two Blakes and other family members, reading, and travel.

"We are delighted that Dr. Victoria Bugg has agreed to join the DMEI faculty and are confident that she will make outstanding contributions to fulfilling our organizational missions," stated Drs. Gregory L. Skuta and R. Michael Siatkowski in announcing Dr. Bugg's recruitment to the DMEI/OU faculty. ■

BEN J. HARVEY, MD RECOGNIZED AMONG Oklahoma Magazine's "40 Under 40"

IN THE APRIL 2020 ISSUE OF *OKLAHOMA MAGAZINE*, Dr. Ben J. Harvey was among the state's "40 Under 40" recognized as "influential young leaders (who) drive the state forward."

Dr. Harvey is a glaucoma specialist and clinical assistant professor on the Dean McGee Eye Institute (DMEI)/University of Oklahoma (OU) Department of Ophthalmology faculty. He was previously honored in November 2019 among the *Oklahoma Gazette's* "Forty Under 40" class of 2019 as one of 40 exceptional individuals under age 40 who have made significant contributions to shaping the Oklahoma City landscape.

Dr. Harvey joined DMEI's glaucoma service in March 2019, served as president of the Oklahoma Academy of Ophthalmology (OAO) from 2017 to 2020, and is a graduate of the American Academy of Ophthalmology's Leadership Development Program. He earned his undergraduate (summa cum laude) and medical (Alpha Omega Alpha Honor Medical Society) degrees from Texas Tech University and completed his residency at DMEI/ OU, followed by a glaucoma fellowship at the Bascom Palmer Eye Institute of the Palm Beaches (Florida).



Ben J. Harvey, MD Clinical Assistant Professor

In *Oklahoma Magazine's* April 2020 publication, Dr. Harvey shared that helping patients maintain their vision and improve their quality of life makes the long hours and hard work worth it. He further stated that the favorite parts of his job are the relationships where he can "get to know my patients and their families through continuity of care."

Dr. Harvey and his wife Leigh, who is a physical therapist, have three children, Dane, Boyd, and Layla.

Dr. Harvey was the fourth member of the DMEI/OU faculty to be honored by the *Oklahoma Gazette's* "Forty Under 40" program over a three-year period but was the first to be so recognized by *Oklahoma Magazine*.

2020EMPLOYEE SERVICE AWARDS

Forty-eight employees were recognized in December for their 655 collective years of service to the Dean McGee Eye Institute (DMEI) and University of Oklahoma Department of Ophthalmology. Congratulations to all!

35 YEARS

Reagan H. Bradford Jr., MD

30 YEARS

Stephen R. Fransen, MD Cheryl Harris Shawnda Moates

25 YEARS

Robert E. Anderson, MD, PhD Jo Ann Shannon

20 YEARS

Renaté Carson Raju V.S. Rajala, PhD Lena Redden Emilee Roberts Dianne Rodriguez Whitney Rollings Kelly Russell Deana S. Watts, MD Sheryl Wright

15 YEARS

Elaina Cozad-Torres Michael Daniels Carrie Davis Christina Fletcher Angie Hines Karen Morgan Gayle Seabolt Dana Spender Rita Ward Glenda Woodside

10 YEARS

Patrick Bishop Phillip S. Coburn, PhD Kelly Colvin Sandra Cooper Brandalyn D. Loyko, OD Joel McRae Angela Spinner

5 YEARS

Jazzamine Asberry Heather Bates Kimberly Carr Katie Chambers
Markeisha Cheadle
Jim Durbin
Diane Ely
Garyl Geist
Cheryl Hamm
Darren J. Lee, PhD
Sara Leonard
Shawn Paine
Melissa Preciado
Bonnie Raymond
Tammy Roberts

Michael Sullivan



Reagan H. Bradford Jr., MD 35 years



Stephen R. Fransen, MD 30 years



Cheryl L. Harris, COA 30 years



Shawnda L. Moates, COT 30 years



Robert E. Anderson, MD, PhD 25 years



Jo Ann Shannon, COA 25 years



Karen K. Morgan, RN (left) pictured with Gregory L. Skuta, MD (right). Morgan was recognized for 15 years of service as an Institute-employed registered nurse in the preoperative area of the McGee Eye Surgery Center. However, she has dedicated 30 years to working with DMEI surgeons since her start in 1990 at the former Bob Hope Eye Surgery Center at Oklahoma City's Presbyterian Hospital.



Renaté F. Carson (left) pictured with Gregory L. Skuta, MD (right). Carson has served in numerous roles at DMEI over the past 20 years and currently serves as a patient appointment coordinator for the pediatric ophthalmology service.

Contact Lens Services Readily Available at DMEI

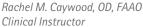
FOLLOWING ROUTINE COMPREHENSIVE EYE EXAMINATIONS OR OTHER MEDICAL OR SURGICAL OPHTHALMIC PROCEDURES at the Dean McGee Eye Institute (DMEI), corrective contact lenses may be recommended. The contact lens specialists at DMEI work with all DMEI doctors to ensure the best choice of lenses. A comprehensive eye exam is required within one year of a contact lens fitting to ensure continued good and proper eye health.

During the contact lens fitting, a thorough examination will be performed by one of our two contact lens specialists, Rachel M. Caywood, OD, FAAO or Scott Samples, NCLE-AC, CPOT, to determine whether contact lenses are an option. This examination will include a measurement of the corneal curvature, a health assessment of your eyes, and an in-office fitting and evaluation of lenses. The contact lens specialist will also demonstrate the proper insertion, removal, and care of the new lenses.

The DMEI contact lens service is dedicated to providing the highest quality patient care. A complete range of lenses is offered from elective contacts to the most specialized, medically necessary lenses. As a medical device that touches the surface of the eye, contact lenses can certainly impact the health of the eye, and proper preventative assessment and care must be undertaken to maintain successful wear.

The DMEI contact lens service specializes in fitting patients who require medically necessary contact lenses for such conditions and needs as: congenital or postsurgical anisometropia; corneal







Scott Samples, NCLE-AC, CPOT

transplant; keratoconus; pellucid marginal degeneration; post-refractive surgery; prosthetic contact lenses; injured eye; glaucoma; ocular albinism; and unique retinal abnormalities.

Elective Contact Lenses:

- Soft Contact Lenses
- Multifocal Soft Contact Lenses
- Hybrid Contact Lenses
- Rigid Gas Permeable (RGP) Contact Lenses
- Contact Lenses for Progressive Myopia

Medically Necessary Contact Lenses:

- Contact Lenses for Children
- Specialty Soft Contact Lenses
- Scleral Contact Lenses
- Hybrid Contact Lenses
- Rigid Gas Permeable (RGP) Contact Lenses
- Prosthetic Contact Lenses

To schedule a contact lens fitting and start seeing more clearly, you may call 405.271.6084 or 800.787.9012. ■

FACULTY MEMBERS SERVE AS ORAL BOARD EXAMINERS IN 2020

TO BECOME CERTIFIED BY THE AMERICAN BOARD OF OPHTHALMOLOGY

(ABO), candidates who have successfully completed residency training must pass a written examination followed by an oral examination. The largest in-person oral examination in the history of the ABO (more than 600 candidates) was planned for March 2020 but, because of COVID-19, had to be rescheduled into four virtual oral examination administrations starting in July and continuing through November 2020. Members of the Dean McGee Eye Institute/University of Oklahoma (DMEI/OU) faculty who participated as an ABO director, oral examiners, or panel leader in 2020 included Drs. Ann Acers-Warn, Jean R. Hausheer, Annie Moreau, Rebecca K. Morgan, Anil D. Patel, Gregory L. Skuta, and Tammy L. Yanovitch.



Rebecca K. Morgan, MD Thomas E. Acers, MD Clinical Professor of Ophthalmology 28-Time ABO Examiner

Dr. Morgan, who is the Thomas E. Acers, MD Clinical Professor of Ophthalmology at DMEI, has served as an oral examiner since 1995 and has examined 28 times. Only two other active ABO oral examiners have examined more than 25 times. For her service as an oral examiner and for reaching and surpassing the 20-exam threshold, Dr. Morgan

received the ABO's Ben Goldfeller Volunteer Service Award in November 2016. She also has served six times as a mentor examiner, providing training to new oral examiners on proper examination techniques, and once as a panel leader, who oversees a group panel of oral examiners. In addition, Dr. Morgan has participated in 10 meetings focused on the development of "patient management problems" for the oral examinations. She will serve as an oral examiner again in March 2021.

Dr. Acers-Warn, who became an ABO director in 2018, is involved in all oral examinations, including service as a panel leader. Now an emeritus director, Dr. Skuta served as an ABO director from 2001 to 2008. He was a panel leader for the August 29-30, 2020 oral examination.

Dr. Hausheer has examined 19 times and Dr. Yanovitch eight times. Drs. Moreau and Patel were first-time ABO oral examiners in 2020. Please see "Faculty & Staff Awards and Activities" for more information on Drs. Hausheer, Moreau, Patel, and Yanovitch's ABO contributions.

Becoming an examiner of the Board is a volunteer appointment and is based on factors such as ophthalmic expertise, professional excellence, and commitment to patient care. Of the Board's approximately 22,000 active diplomates, fewer than 500 (approximately two percent) have been selected as examiners.

Other past or current members of the DMEI/OU faculty who have served as ABO directors include Drs. C.P. "Pat" Wilkinson, David W. Parke II, and R. Michael Siatkowski.

COVID-19 Update



ALL OF US AT THE DEAN MCGEE EYE INSTITUTE (DMEI) CARE ABOUT YOUR

SAFETY. We have taken many steps to ensure that the best precautions are in place for all patient appointments, testing, and surgical procedures. Please visit our website (dmei.org) for more information about DMEI's COVID-19 safety protocols.

In our efforts to help keep you safe, COVID-19 vaccines have been made available to DMEI's doctors and staff. To date, more than 90% of our doctors and a large number of our staff have been vaccinated.

We encourage everyone to obtain a COVID-19 vaccine as soon as you become eligible. Please visit vaccinate.oklahoma.gov to find out more.

We are hopeful that the worst of the pandemic will soon be behind us. In the meantime, DMEI will continue to provide the excellence and leadership in patient care that you have come to expect.



Jeremy F. Tan, MD Clinical Assistant Professor



Jean R. Hausheer, MD, FACS Clinical Professor



Kamran M. Riaz, MD Clinical Associate Professor



Gregory L. Skuta, MD Professor



Pictured (left to right): Ms. Ellen R. Oakes with her ophthalmologist, Andrew K. Bailey, MD, Clinical Associate Professor.

Meet Another DMEI Centenarian

AT THE DEAN MCGEE EYE INSTITUTE (DMEI), we love to celebrate our patients who are centenarians! Ms. Ellen R. Oakes, age 101, is a patient of Dr. Andrew K. Bailey's in our Edmond office. If you are a DMEI patient age 100 or more and would be willing to have your name included in the next edition of DMEI *InVision*, please contact the Development Office at 405.271.7801 or at *DMEI-Development@dmei.org*. We would love to add your picture too! ■

FACULTY & STAFF AWARDS AND ACTIVITIES



MARTIN-PAUL AGBAGA, PhD, recently published: Mann S.N., Hadad N., Nelson Holte M., Rothman A.R., Sathiaseelan R., Ali Mondal S., Agbaga M.P., Unnikrishnan A., Subramaniam M., Hawse J., Huffman D.M., Freeman W.M., Stout M.B. "Health Benefits Attributed to 17α-Estradiol, a Lifespan-extending Compound, Are Mediated through Estrogen Receptor α," *Elife*, Dec. 2020; and Agbaga M.P., Stiles M.A., Brush R.S., Sullivan M.T., Machalinski A., Jones K.L., Anderson R.E., Sherry D.M. "The ELOVL4 Spinocerebellar Ataxia-34 Mutation 736T>G (p.W246G) Impairs Retinal Function in the Absence of Photoreceptor Degeneration," *Molecular Neurobiology*, Nov. 2020, Epub Aug. 2020. He was selected to join the Board of Scientific Advisors of Seafood Nutrition Partnership, a nonprofit whose goal is inspiring a healthier America through partnerships and outreach to raise awareness about the essential nutritional benefits of eating seafood, July 2020.



NATHAN W. BLESSING, MD, recently published: Koo E.B., Blessing N.W., Tran A.Q., Al-Sadah Z., Alabiad C.R. "Vaso-occlusive Infarction of the Lateral Orbital Wall with Ipsilateral Temporalis Muscle Ischemia," *Journal of Pediatric Ophthalmology and Strabismus*, Oct. 2020; Blessing N.W., Chen Y., Choi C.J., Kanokkantapong J., Tao W., Pelaez D., Lee B.W. "Orbital Hemorrhagic Necrosis, Globe Rupture, and Death from Intraorbital Injection of 1% Sodium Deoxycholate in a Murine Model," *Ophthalmic Plastic and Reconstructive Surgery*, Oct. 2020; Blessing N.W., Rong A.J., Tse B.C., Erickson B.P., Lee B.W., Johnson T.E. "Orbital Bony Reconstruction with Pre-sized and Pre-contoured Porous Polyethylene - Titanium Implants," *Ophthalmic Plastic and Reconstructive Surgery*, Sept. 2020; and Erickson B.P., Kossler A.L., Blessing N.W., Topping K.L., Ko A.C., Lee W.W., Johnson T.E. "The Superficial Temporal Artery as 'Biologic Jones Tube:' A Cadaveric Proof of Concept," poster presentation at the Association for Research in Vision and Ophthalmology Annual Meeting, May 2020. He was selected to the join the Young American Society of Ophthalmic Plastic and Reconstructive Surgery (YASOPRS) Committee for 2021-2023.



MICHELLE C. CALLEGAN, PhD, recently published: Mursalin M.H., Coburn P.S., Miller F.C., Livingston E.T., Astley R., Callegan M.C. "Innate Immune Interference Attenuates Inflammation in *Bacillus* Endophthalmitis," *Investigative Ophthalmology & Visual Science*, Nov. 2020. She was awarded a National Institutes of Health R21 grant, "Phage-based Therapeutics for Ocular Infections," Aug. 2020 – July 2022.



MICHAEL H. ELLIOTT, PhD, recently published: Gurley J.M., Gmyrek G.B., McClellan M.E., Hargis E.A., Hauck S.M., Dozmorov M.G., Wren J.D., Carr D.J.J., Elliott M.H. "Neuroretinal-derived Caveolin-1 Promotes Endotoxin-induced Inflammation in the Murine Retina," *Investigative Ophthalmology & Visual Science*, Oct. 2020; Schafer C.M., Gurley J.M., Kurlowicz K., Lin P.K., Chen W., Elliott M.H., Davis G.E., Bhatti F., Griffin C.T. "An Inhibitor of Endothelial ETS Transcription Factors Promotes Physiologic and Therapeutic Vessel Regression," *Proceedings of the National Academy of Sciences United States of America*, Sept. 2020; De Ieso M.L., Gurley J.M., McClellan M.E., Gu X., Navarro I., Li G., Gomez-Caraballo M., Enyong E., Stamer W.D., Elliott M.H. "Physiologic Consequences of Caveolin-1 Ablation in Conventional Outflow Endothelia," *Investigative Ophthalmology & Visual Science*, Sept. 2020; and Li G., Schmitt H., Johnson W.M., Lee C., Navarro I., Cu, J., Fleming, T., Gomez-Caraballo M., Elliott M.H., Sherwood J.M., Hauser M.A., Farsiu S., Ethier C.R., Stamer W.D. "Integral Role for Lysyl Oxidase-like-1 in Conventional Outflow Tissue Function and Behavior," *The Federation of American Societies for Experimental Biology Journal*, July 2020.



BRADLEY K. FARRIS, MD, was recognized during 2020 (The Year of the Eye) by the American Academy of Ophthalmology as one of its 31 "Unsung Heroes," Oct. 2020. Dr. Farris, a professor emeritus in the OU Department of Ophthalmology, was cited for his exceptional commitment to education, mentorship, and global eye care.



SAMANTHA J. GRIFFEN, became a certified ophthalmic assistant (COA), Sept. 2020. She works in DMEI's Northwest Oklahoma City location.



BEN J. HARVEY, MD, was among the state's "40 Under 40" recognized as "influential young leaders (who) drive the state forward" in the April 2020 issue of *Oklahoma Magazine*. See page 15.



JEAN R. HAUSHEER, MD, FACS, served as an examiner for administration of the American Board of Ophthalmology's (ABO's) virtual oral examinations on Aug. 29-30 and Sept. 12-13, 2020. (See page 18.) She will serve as an examiner again in March 2021. Dr. Hausheer also has participated in the development of "patient management problems" that are used for the oral examinations and on five ABO Exam Development Committees, writing comprehensive and refractive intervention items for the written and oral examinations. Since December 2020, Dr. Hausheer has been facilitating and coordinating weekly statewide Healthier Oklahoma Coalition virtual press conferences to update Oklahomans and the media on topics related to the COVID-19 pandemic. Numerous presenters have participated. Dr. Hausheer is past president of the Oklahoma State Medical Association and leader of the Healthier Oklahoma Coalition COVID-19 Task Force since April 2020.



MAHMOUD A. KHAIMI, MD, has been awarded the James P. Luton, MD Endowed Chair in Ophthalmology, Oct. 2020. See pages 6-7.



SUN YOUNG LEE, MD, PhD, recently published: LaGrow A.L., Schatzman S.N., Amayem O.A., Bradford R.H., Shah V.A., Chen S., Lee S.Y. "Endophthalmitis after Transconjunctival Pars Plana Vitrectomy: A 6-year Experience without Prophylactic Intraoperative Subconjunctival Antibiotics," *Retina,* Aug. 2020, Epub ahead of print. She received an Oklahoma Shared Clinical and Translational Resources (OSCTR) Pilot Program Grant for Jan. 2021 to Dec. 2021.



ANNIE MOREAU, MD, FACS, served as an examiner for administration of the American Board of Ophthalmology's virtual oral examinations on Aug. 29-30 and Nov. 7-8, 2020. She will serve as an examiner again in March 2021. (See page 18.) Dr. Moreau recently published: Gudgel

FACULTY & STAFF AWARDS AND ACTIVITIES

B.M., O'Brien J.C., Moreau A., Peterson J.G. "The Case of a Bulging Eye and Double Vision," *EyeNet Magazine*, Morning Rounds, Sept. 2020. She was appointed to the Honorary Degrees Screening Committee as the University of Oklahoma (OU) Health Sciences Center representative from the University Council on Faculty Awards and Honors for the 2020 - 2021 term. Dr. Moreau was inducted into the British Oculoplastic Surgery Society, Oct. 2020. Her recent guest speaking engagements include: "Diagnosis and Management of Eyelid Malignancies," Virtual Grand Rounds and Guest Speaker, University of New Mexico Department of Ophthalmology and Visual Sciences and New Mexico Academy of Ophthalmology, Oct. 2020; and "Ocular Manifestations of Periorbital Radiotherapy," Virtual Grand Rounds, Department of Radiation Oncology, OU Health Sciences Center, Sept. 2020.



JAMES C. O'BRIEN, MD, received a 2020 M. Dewayne Andrews, MD Excellence in Teaching Award in Graduate Medical Education from the Academy of Teaching Scholars, Oct. 2020. See pages 10-11.



ANIL D. PATEL, MD, FRCSC, FACS, served as an examiner for administration of the American Board of Ophthalmology's virtual oral examinations on Aug. 29-30 and Sept. 12-13, 2020. (See page 18.) He will serve as an examiner again in March 2021.



RAJU V.S. RAJALA, PhD, received a \$120,000 grant from the Oklahoma Center for Adult Stem Cell Research, Jan. 2021 to Dec. 2021. His recent publications include: Losiewicz M., Elghazi L., Finger D.C., Rajala R.V.S., Lentz S.I., Fort P.E., Abcouwer S.F., Gardner T.W. "mTORC and mTORC2 Expression in Inner Retinal Neurons and Glial Cells," *Experimental Eye Research*, Aug. 2020; and Rajala A., He F., Anderson R.E., Wensel T.G., Rajala R.V.S. "Loss of Class III Phosphoinositide 3-kinase Vps34 Results in Cone Degeneration," *Biology*, Nov. 2020.



KAMRAN M. RIAZ, MD, recently published: Simon N.C., Farooq A.V., Zhang M.H., Riaz K.M. "The Effect of Pharmacological Dilation on Calculation of Targeted and Ideal IOL Power Using Multivariable Formulas," *Ophthalmology and Therapy*, Sept. 2020; Riaz K.M., Williams B., Farooq A.V., Kloek C.E. "Surgical Curriculum for Presbyopia-correcting Intraocular Lenses: Resident Experiences and Surgical Outcomes," *Clinical Ophthalmology*, Aug 2020; Riaz K.M., Djalilian A.R. "Proposed Nomenclature for DSAEK Procedures," *Cornea*, Dec. 2020; Nguyen L.N., Parikh S.U., Batliwala S.Y., Davis A.S., Riaz K.M. "Temporal Profile and Treatment of *Purpureocilium* Keratitis Secondary to Herpes Zoster Reactivation Following Influenza Vaccination," *International Medical Case Reports Journal*, Sept. 2020; Riaz K.M., Williams B.L., Safran S.G., Gallardo M.J. "Proliferative Anterior Optic Membranes in Hydrophobic Acrylic Intraocular Lenses," *Clinical Ophthalmology*, Oct. 2020; Berry J.C., Moore L.E., Riaz K.M. "Novel Microforceps Technique Developed for Endothelial

Surgical Procedures," *Cornea*, Jan. 2021; "Posterior Keratoconus," *American Academy of Ophthalmology Images Collection*; and "Cataract Surgery in the Setting of Posterior Keratoconus," *EyeWiki*, Nov. 2020. His recent lectures include: Northwestern Ophthalmology Optics Lectures (monthly, via webcast (Zoom)); and "Management of Recurrent Corneal Erosions," Oklahoma Academy of Optometry Annual Meeting, Oklahoma City, OK, Aug. 2020.



VINAY A. SHAH, MD, has been named the inaugural recipient of the Thelma Gaylord Endowed Chair in Ophthalmology, Nov. 2020. See pages 8-9.



R. MICHAEL SIATKOWSKI, MD, MBA, joined the Ophthalmic Mutual Insurance Company leadership as a member of the Risk Management and Underwriting Committees, Jan. 2021; was appointed as a faculty member in the University of Oklahoma College of Medicine's Academy of Teaching Scholars, Sept. 2020 (see pages 10-11); and received his Master of Business Administration degree from the Price College of Business, University of Oklahoma, Dec. 2020. Dr. Siatkowski's recent publications include: Jin H.D., Siatkowski R.M., Siatkowski R.L. "Ocular Manifestations of Mycoplasma-induced Rash and Mucositis," Journal of American Association for Pediatric Ophthalmology and Strabismus, July 2020; and Wallace D.K., Kraker R.T., Freedman S.F., Crouch E.R., Bhatt A.R., Hartnett M.E., Yang M.B., Rogers D.L., Hutchinson A.K., VanderVeen D.K., Haider K.M., Siatkowski R.M., Dean T.W., Beck R.W., Repka M.X., Smith L.E., Good W.V., Kong L., Cotter S.A., Holmes J.M; Pediatric Eye Disease Investigator Group (PEDIG). "Short-term Outcomes After Very Low-dose Intravitreous Bevacizumab for Retinopathy of Prematurity," Journal of the American Medical Association-Ophthalmology, Apr. 2020. Dr. Siatkowski presented the 18th Straatsma Award Lecture entitled "The Evolution of Character in Academia" during the virtual 2021 Annual Meeting of the Association of University Professors of Ophthalmology, Feb. 2021. See page 38.



GREGORY L. SKUTA, MD, served as a panel leader for administration of the American Board of Ophthalmology's (ABO's) virtual oral examination on Aug. 29–30, 2020. (See page 18.) Dr. Skuta will serve as a panel leader again in March 2021. He is an emeritus director of the ABO.



TAMMY L. YANOVITCH, MD, MHSc, recently co-published Enyedi L., Gandhi N., and Yanovitch T. *The Duke Manual of Pediatric Ophthalmology and Strabismus Surgery*, Dec. 2020. She served as an examiner for administration of the American Board of Ophthalmology's (ABO's) virtual oral examination on Aug. 29-30, 2020. (See page 18.) In May 2020, she helped test the prototype exam. Since 2013, Dr. Yanovitch has participated on six ABO Exam Development Committees, writing pediatric ophthalmology items for the written and oral examinations.

PHILANTHROPY UPDATE



Remembering Mike Samis

MICHAEL S. "MIKE" SAMIS,

Dean McGee Eye Institute (DMEI) board director, businessman, civic leader, and philanthropist, died

Thursday, October 22, 2020 following a lengthy battle with prostate cancer. He was 67 years old.

A native of Oklahoma City, Mr. Samis was survived by his parents Jim (who subsequently passed away on February 15, 2021) and Shan Samis, wife (of 46 years) Karen, daughters Carter (husband Fred) Fellers and Katharine (husband Kent) Regens, and five grandchildren.

Mr. Samis served on the DMEI Board of Directors for more than 25 years. His many leadership roles also included service as chair of the University Hospitals Authority and Trust, as chair of the University of Oklahoma (OU) Foundation, and as chairman of the board of OU Medicine, Inc., the latter since 2018. He also served as a director of BancFirst, Sovereign Asset Management (an investment vehicle of The Chickasaw Nation), Oklahoma Medical Research Foundation, and the Stephenson Cancer Center Advisory Council.

In 2010, Mr. Samis was honored by the OU College of Medicine Alumni Association with the Dean's Award for Distinguished Community Service. The Samis Family Education Center, adjacent to Oklahoma Children's Hospital-OU Health, was dedicated in early 2012 in recognition of his mission to advance medical education, research, and patient care in the state of Oklahoma.

A graduate of OU (BA) and Southern Methodist University (MBA), he joined Macklanburg–Duncan Co., M-D, a manufacturer of home improvement products, in 1982. He served as M-D's president and chief executive officer (CEO) from 1990 to 2000, when the company was sold to General Electric. He was chairman of MD Building Products, a spinoff of M-D, until 2007.

"While we celebrate Mike's extraordinary and impactful legacy, courage, inspiration and friendship, we also will miss his zest for life, amazing skills as a leader, brilliant insights, and mischievous chuckle," said Gregory L. Skuta, MD, president and CEO of the Institute and chair of the OU Department of Ophthalmology at the time of Mr. Samis' passing. "Mike was loved and revered by all who knew him. His broad and positive influence on our state and community as well as OU and the Health Sciences Center will endure."



NEW DEAN MCGEE EYE INSTITUTE BOARD OF DIRECTORS PHYSICIAN ADVISORY REPRESENTATIVE

IN JANUARY 2021, DR. CYNTHIA A. BRADFORD

succeeded Ronald M. Kingsley, MD (pictured on pages 30 and 44) as a rotating faculty advisory member on the Dean McGee Eye Institute (DMEI) Board of Directors. She will serve in this role for two years.

Dr. Bradford, a comprehensive ophthalmologist and cataract surgeon, has served on the faculty for almost 34 years, was promoted to the rank of professor in 2006, and is now a Presbyterian Health Foundation Presidential Professor at the University of Oklahoma (OU). She received her undergraduate degree (magna cum laude) from Texas A&M University and medical degree (with high honors and Alpha Omega Alpha Honor Medical Society) from the University of Texas Medical Branch at Galveston. Dr. Bradford completed her ophthalmology residency at DMEI/OU.

Her numerous teaching awards include an OU Regents' Award for Superior Teaching (2011) and an M. Dewayne Andrews, MD Excellence in Teaching Award in Clinical Education (of medical students) in October 2019. Dr. Bradford served as the director of medical student education in the OU Department of Ophthalmology from 1993 to 2020.

As a major leader in the profession of ophthalmology, Dr. Bradford has served as president of the Oklahoma Academy of Ophthalmology (OAO), senior secretary for advocacy for the American Academy of Ophthalmology (AAO), and AAO president in 2017. In addition, she has received the OAO's Distinguished Service Award in 2015 and an AAO Life Achievement Honor Award in 2019.



Cynthia A. Bradford, MD Presbyterian Health Foundation Presidential Professor

New Dean McGee Eye Institute Foundation Board of Directors Chair

H. CHRIS FLEMING IV WAS ELECTED AS THE NEW CHAIR

of the Dean McGee Eye Institute (DMEI) Foundation Board of Directors in November 2020. He succeeds G. Rainey Williams Jr., who had served in this role since 2012.

"The DMEI Foundation has been extremely fortunate to benefit from Rainey Williams' outstanding and insightful leadership over the past eight years," said Dr. Gregory L. Skuta, DMEI's president and chief executive officer and the Edward L. Gaylord professor and chair of the OU College of Medicine's Department of Ophthalmology at the time of the Williams-Fleming transition. "We are indebted to Rainey for his strategic vision in advancing the impact of the Foundation and, thereby, the multiple missions of the Dean McGee Eye Institute."

Fleming, who joined the DMEI Foundation Board of Directors in 2018, has served as executive vice president of REHCO, LLC (the Bob Howard investment organization) since 2006. He earned Bachelor and Master of Business Administration degrees from the University of Oklahoma (OU) and is an alumnus of Harvard Business School.

Fleming is highly active in the community and is currently president of the Myriad Botanical Gardens Foundation Community Board and treasurer of the Board of Trustees for the Oklahoma City National Memorial and Museum. He holds numerous other board positions, including the YMCA of Greater Oklahoma City Board of Directors, Board of Directors of i2E, and the MBA Advisory Board of OU's Gene Rainbolt Graduate School of Business.

As chair of the DMEI Foundation Board, Fleming also will serve on the DMEI Board of Directors. Williams will continue to serve on the DMEI Board of Directors and the DMEI Foundation Board of Directors.



Chris Fleming
New Chair, DMEI Foundation Board of Directors



G. Rainey Williams Jr.
Past Chair, DMEI Foundation Board of Directors

Dean McGee Eye Institute Continues Partnership with OKC Thunder

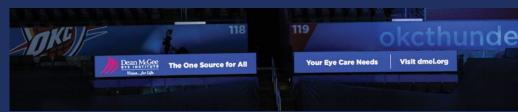
THE DEAN MCGEE EYE INSTITUTE (DMEI) IS PROUD to be the Preferred Eye Care Provider of the OKC Thunder. During the current season, keep an eye out for DMEI in the following ways:

- Check out the BOLT sign on the outside of Chesapeake Energy Arena (top right).
- Download the official Thunder mobile app at *nba.com/thunder/app* and look for the DMEI banner among the rotating banners at the bottom of the screen (middle left).
- Catch us on the digital baseline signage (and on the lower level digital platform signage) during televised home games (middle right and bottom).
- Listen for the 30-second DMEI radio spots on WWLS 98.1 FM during all Thunder games.
- Follow us on Facebook
 @deanmcgeeeyeinstitute to
 see special Thunder posts
 during the season.









CONSIDER A Gift for the Future

THE YEAR 2020 WAS A YEAR OF UNPRECEDENTED UPS AND DOWNS. Like

you, we at the Dean McGee Eye Institute faced many unforeseen challenges, but, thanks to your support, we have emerged stronger and more focused on our mission than ever. We are excited to see what 2021 has in store for us and our patients!

We understand that supporting the organizations you care about while balancing your family's needs continues to be a priority. The following savvy gifts allow you to do both:

- > Name the Dean McGee Eye Institute Foundation as a beneficiary of your retirement plan assets or life insurance policy. You do not need to part with assets today, but your future gift ensures we can continue our work for generations to come.
- > Leave the Dean McGee Eye Institute Foundation a gift in your will or trust. With just one sentence, you can extend your support of the Dean McGee Eye Institute into the future. Use the following language for your will and/or trust: "I give to the Dean McGee Eye Institute Foundation, a nonprofit corporation currently located at 608 Stanton L. Young Blvd., Oklahoma City, OK 73104, or its successor thereto,

 ______ [written dollar amount or percentage of the estate or description of property] for its unrestricted charitable use and purpose."

If you have made a gift to the Dean McGee Eye Institute Foundation in your future plans, please let us know by contacting Jim Durbin at *jim-durbin@dmei.org* or 405.271.7803. It would be our honor to thank you for your generosity.

Source: The Stelter Company. The information in this article is not intended as legal or tax advice. For such advice, please consult an attorney or tax advisor.

THE NOBLE FOUNDATION HELPS ADVANCE DMEI'S RESEARCH IN RETINAL DEGENERATIONS

IN NOVEMBER 2020, THE DEAN MCGEE EYE INSTITUTE (DMEI) RECEIVED A \$75,000 GRANT FROM THE SAMUEL ROBERTS NOBLE FOUNDATION to help the Institute acquire equipment that will advance DMEI's research in retinal degenerative diseases.

The retina is the thin layer of light-sensitive tissue that lines the back of the eye and converts light rays into impulses that travel through the optic nerve to the brain, where they are interpreted as the images we see. When the retina is damaged or diseased, visual loss or blindness can result.

Inherited retinal diseases (IRDs) are not well understood. A defect in a single gene can be enough to cause disease, yet there are over 300 genes associated with IRDs. This means that there is no single treatment. Patients in Oklahoma who suffer from IRDs have few choices when it comes to treatment options and thus there is a need for more research.

Grant support from The Noble Foundation will advance such research by enabling DMEI to acquire two pieces of vital diagnostic equipment. One device is used to perform electroretinograms (ERGs). An ERG assesses how well the neural pathway from the

photoreceptors of the retina to the visual center of the brain is functioning.

The second device is a macular integrity assessment confocal microperimetry imaging system (MAIA-CMPIS). This device measures light sensitivity of the retina by projecting 4 mm² stimuli over different retinal locations within the field of view. A major advantage of MAIA-CMPIS over standard automated perimetry is that retinal sensitivity is measured while simultaneously imaging the retina in real time. Acquiring an MAIA-CMPIS will permit DMEI to participate in a large, multicenter Phase III clinical trial of a proposed treatment for retinitis pigmentosa, a group of rare, genetic disorders that involve a breakdown and loss of photoreceptors in the retina.

DMEI is deeply grateful for The Noble Foundation's support. With this foundation's help, our vision researchers are pushing the boundaries of science to find new treatments and cures for blinding diseases. ■

You can also support our research efforts by going to www.dmei.org/donate-now and selecting the "Vision Research Fund."

DMEI Recognizes Generosity of Donor



Jack R. Jacobs (left) shown with one of his DMEI physicians, Dr. Ronald M. Kingsley, next to signage recognizing Jacobs' "generous contributions in acquiring vital diagnostic and surgical equipment" at DMEI and "for his deep commitment to outstanding eye care."

MR. JACK R. JACOBS OF TULSA became a donor to the Dean McGee Eye Institute (DMEI) in 2004. Over the next 16 years, his gifts increased in size, and the impact they had grew with them.

"Mr. Jacobs is an absolutely delightful man, and it has been my pleasure to interact with him over the years," states Gregory L. Skuta, MD, DMEI president and chief executive officer and chair of the University of Oklahoma Department of Ophthalmology from 2009 to February 28, 2021. "His gifts have truly been a blessing to the Eye Institute and always seem to arrive when we are most in need. His support of our retina services in particular has been considerable and impactful."

Some of the equipment DMEI has acquired with Mr. Jacobs' help includes a surgical microscope for one of the operating rooms in the McGee Eye Surgery Center, a TxCell Scanning Laser for retinal photocoagulation procedures, an optical coherence tomography (OCT) upgrade for OCT angiography, an Optos wideangle fundus camera for viewing the retina, and a Resight wide-angle surgical microscope attachment specifically used in vitreoretinal surgery.

"We are deeply grateful to Mr. Jacobs for his generosity and devotion to ensuring excellence in patient care at DMEI," says Dr. Skuta. To recognize Mr. Jacobs for his many years of generous support, a plaque was installed in September 2020 in The Chickasaw Nation Center of Excellence for Diabetic Retinopathy and Macular Degeneration, the home of DMEI's retina service.

Friends Honor Laurence D. Lucas' Memory

ON OCTOBER 22, 2020, A SMALL GROUP OF FAMILY AND FRIENDS of Laurence D. "Larry" Lucas, DDS gathered in The Chickasaw Nation Center of Excellence for Diabetic Retinopathy and Macular Degeneration on the third floor of the Dean McGee Eye Institute's (DMEI's) Thomas E. Acers, MD Pavilion to remember Lucas and his connection to the Eye Institute. He passed away in April 2019 at age 86 and was a businessman and entrepreneur known for his devotion to the community and to the arts in particular. In Lucas' memory, his friends, including Jim and Beth Tolbert, donated over \$40,000 to help DMEI acquire an optical coherence tomography (OCT) unit, diagnostic imaging technology that is very important in the diagnosis and treatment of glaucoma and retinal diseases like age-related macular degeneration.

Dr. Gregory L. Skuta, DMEI president and chief executive officer at the time of the gathering and also one of Lucas' physicians, stated, "We are honored that Larry entrusted his eye and retinal care to the Eye Institute and in particular to Dr. Reagan H. Bradford Jr. and our former president and chief executive officer, Dr. David W. Parke II.* As his wife, (prominent artist) Jean Richardson, has shared with us, the outstanding care provided by these two doctors allowed Larry to continue his love for reading until his very last days."

"We are also deeply grateful to the friends who donated in Larry's memory," said Dr. Skuta, "as this will enable us to provide the same exceptional level of care to other patients with retinal conditions." ■



Laurence D. "Larry" Lucas



Pictured (left to right): Larry Lucas' wife Jean Richardson, friends Beth and Jim Tolbert, and Lucas' stepson Brooks Richardson with wall plaque placed in Lucas' memory. Mr. Tolbert is chair emeritus of DMEI's Board of Directors.

^{*}Information shared with family's permission.

PRESBYTERIAN HEALTH FOUN

SINCE 2014, THE PRESBYTERIAN HEALTH FOUNDATION (PHF) has

awarded \$19.9 million to support the PHF Research Grants Program, which funds multiple types of grants (e.g., bridge, seed, team science, equipment, clinician scientist development, research support, and symposia grants) and has committed up to an additional \$4.15 million for 2021. To date, this investment has facilitated the ability for researchers to successfully compete for grants at the national level and develop their research programs, resulting in approximately \$182.3 million in extramural funding.

Dean McGee Eye Institute/ University of Oklahoma Department of Ophthalmology researchers have been beneficiaries of these funds on numerous occasions, with the most recent support in the form of bridge, seed, and equipment grants.



Michelle C. Callegan, PhD, FARVO

Director of Vision Research

Dean A. McGee Professor of Ophthalmology

George Lynn Cross Research Professor

Edith Kinney Gaylord Presidential Professor

Professor, Department of Microbiology and Immunology

In January 2021, Dr. Callegan received a \$75,000 PHF bridge grant for her project entitled "Molecular Pathogenesis of Staphylococcal Ocular Infections."



Darren J. Lee, PhD

Assistant Professor, Department of Ophthalmology Adjunct Assistant Professor, Department of Microbiology and Immunology

In January 2021, Dr. Lee received a \$75,000 PHF bridge grant for his project entitled "Immunobiology of EAU (Experimental Autoimmune Uveitis) Recovery Through the Melanocortin-Adenosinergic Pathway."



Michael H. Elliott, PhD, FARVO

Associate Professor, Department of Ophthalmology Associate Professor, Department of Physiology Mentoring Faculty, Oklahoma Center for Neuroscience

In October 2020, Dr. Elliott received a \$75,000 PHF bridge grant for his project entitled "Role of Caveolin-1 in the Maintenance of the Blood-Retinal Barrier."

RESEARCH FACULTY— DEPARTMENT OF OPHTHALMOLOGY

Martin-Paul Agbaga, PhD Lea D. Bennett, PhD Richard S. Brush, BS Michelle C. Callegan, PhD, FARVO Daniel J.J. Carr, PhD, FARVO Yan Chen, PhD
Phillip S. Coburn, PhD
Michael H. Elliott, PhD, FARVO
Kevin K. Fuller, PhD
Darren J. Lee, PhD

Sun Young Lee, MD, PhD Feng Li, MD, MPH, MS Raju V.S. Rajala, PhD

DATION GRANTS



Martin-Paul Agbaga, PhD
Assistant Professor, Departments of Cell Biology
and Ophthalmology

In July 2020, Dr. Agbaga and his colleagues, Dean A. Myers PhD, David W. Dyer, PhD, Jed E. Friedman, PhD, and James F. Papin, PhD, received a \$34,778 Harold Hamm Diabetes Center and PHF equipment grant for the purchase of technology designed to identify and quantify short-chain fatty acids.



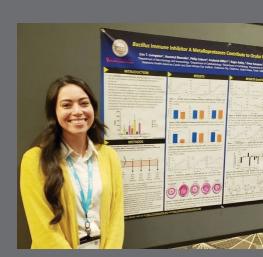
Kevin K. Fuller, PhD
Assistant Professor, Department of
Ophthalmology
Assistant Professor, Department of
Microbiology and Immunology

In July 2020, Dr. Fuller received a \$50,000 PHF seed grant for his project entitled "Hypoxia Adaptation During Fungal Corneal Infection."



Sun Young Lee, MD, PhD
Assistant Professor, Department of
Ophthalmology
Adjunct Assistant Professor, Department of
Physiology

In July 2020, Dr. Lee began the second year of a two-year \$150,000 PHF clinician scientist development award for her project entitled "Functional Role of the Intermediate Filaments in Müller Cell Gliosis."



Erin T. Livingston, Candidate for PhD University of Oklahoma Health Sciences Center

In 2020, Dr. Michelle C. Callegan's graduate student, Erin Livingston, graduated from an internship at the Ronnie K. Irani Center for the Creation of Economic Wealth at the University of Oklahoma. Livingston is also interning at EyeCRO, a local ocular pharmaceutical company.

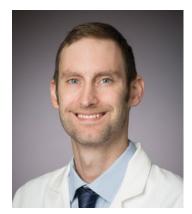
Emerging Vision Scientist, Kevin K. Fuller, PhD, Educates and Advocates Virtually

ON SEPTEMBER 23, THE ALLIANCE FOR EYE AND VISION RESEARCH (AEVR)

held its sixth Annual Emerging Vision Scientists (EVSs) Day, which virtually engaged 22 early-stage investigators nominated by their Departments of Ophthalmology or Schools/ Colleges of Optometry from across the nation. Kevin K. Fuller, PhD, assistant professor in the University of Oklahoma (OU) Departments of Ophthalmology and Microbiology/Immunology and whose laboratory is housed in the Dean McGee Eye Institute (DMEI), was among the participants.

Usually held on Capitol Hill in Washington, DC, this 2020 virtual event replicated components of past years' activities including: AEVR's annual International Age-related Macular Degeneration Awareness Week Congressional Briefing and brief videos by each of the 22 EVSs in which they described their research and its potential promise for patients. A 30-minute session entitled *Impact of COVID-19 Lab Closures on the Next Generation of Vision Scientists* represented a special symposium for this year's meeting and involved the participating scientists in addressing such topics as patient engagement, research models and cell cultures, collaborations, training, and career pathway.

On September 24, and under the auspices of National Alliance for Eye and Vision Research (NAEVR), the EVSs participated in Advocacy Day phone calls with health staff from Congressional delegation offices—and, in some cases, the member



Kevin K. Fuller, PhD Assistant Professor

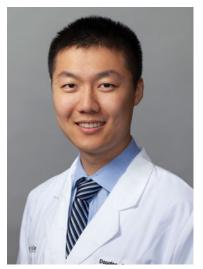
of Congress. Based on their geographic location, several EVSs spoke with staff of key appropriations leaders in which they emphasized the importance of finalizing FY2021 appropriations and providing emergency funding for National Institutes of Health (NIH) research relief. Participants also educated staffers about the impact of COVID-19 pandemic-related clinical and laboratory shutdowns on their research and encouraged them to view AEVR's dedicated video conversation.

"This year was undoubtedly a challenge with lots of uncertainties, but I can say confidently that the event was exceptionally well done and am honored to have participated," said Dr. Fuller, whose research is focused on fungal infections of the cornea. "The phone Hill meetings provided great insight into Congressional office operations. I feel that they were largely productive and well received with our central message about government research support."

The Alliances designed this program to be an important component of these young vision scientists' professional development and to train the next generation of vision research advocates. The 22 participating investigators came from 18 different institutions stretching from Boston to San Diego. ■

invisions: education

RESIDENT WRITERS AWARD PROGRAM



Douglas H. Jin, MD Third-Year Resident

THE OPHTHALMOLOGY TIMES RESIDENT WRITERS AWARD

PROGRAM is a competitive writing program showcasing the best case studies in anterior segment. In July 2020, Douglas H. Jin, MD, a third-year ophthalmology resident at the Dean McGee Eye Institute/ University of Oklahoma, was selected as a top 10 finalist. He received the honor of second place in November 2020 for his case study: Jin H.D., Siatkowski R.M., Siatkowski R.L. "Ocular Manifestations of Mycoplasma-induced Rash and Mucositis," published in the *Journal of American Association for Pediatric Ophthalmology and Strabismus*, July 2020.

The first- and third-place awardees are residents at the Scheie Eye Institute/University of Pennsylvania (Philadelphia) and the Kellogg Eye Center/University of Michigan (Ann Arbor) respectively.

In July 2021, Dr. Jin will begin a prestigious vitreoretinal surgery fellowship at the University of Iowa in Iowa City. ■



SAVE THE DATE!
45th Annual OU Resident and Alumni Meeting*
Friday/Saturday, June 4–5, 2021

41st Tullos O. Coston, MD Lecture (June 5) Tamara R. Fountain, MD

President, American Academy of Ophthalmology Past President, American Society of Ophthalmic Plastic and Reconstructive Surgery Past Chair, Board of Directors, Ophthalmic Mutual Insurance Company

*Meeting format still to be determined.

Annie Moreau, MD, FACS Honored by OU College of Medicine



Pictured (left to right) are Lee W. Young, son of the late Stanton L. Young; John P. Zubialde, MD, executive dean, OU College of Medicine; Gregory L. Skuta, MD, DMEI president and CEO and chair, OU Department of Ophthalmology; and Annie Moreau, MD, FACS, associate professor, DMEI and OU Department of Ophthalmology, with the Herend porcelain owl commemorating Dr. Moreau's 2020 Stanton L. Young Master Teacher Award.

IN APRIL 2020, IT WAS ANNOUNCED THAT ANNIE MOREAU, MD, FACS was the

2020 recipient of the Stanton L. Young Master Teacher Award (see DMEI *InVision*, summer 2020, pages 4-5). As the official award dinner and ceremony could not be held due to the COVID-19 pandemic, Dr. Moreau was presented with a Herend porcelain owl commemorating the prestigious award in a small ceremony in the Andrew Academic Tower at the University of Oklahoma Health Sciences Center (OUHSC) on December 10, 2020.

The masked, socially-distanced event was attended by Dr. Moreau, associate professor, OU Department of Ophthalmology; John P. Zubialde, MD, executive dean, OU College of Medicine; Lee W. Young, son of the late Stanton L. Young; Gregory L. Skuta, MD, president and chief executive officer (CEO), Dean McGee Eye Institute (DMEI), and chair, OU

Department of Ophthalmology, at that time; Jill Swisher, personal representative to the Stanton L. Young Estate and corporate secretary for the Stanton L. Young Foundation; Gayle A. Ruffin, assistant to the executive dean; and Anthony Mount, multimedia education specialist for the Office of the Dean, OU College of Medicine.

In his opening remarks, Dr. Zubialde acknowledged that Stanton L. Young "recognized and celebrated the amazing power

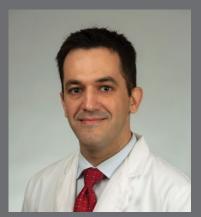
that truly great teachers have in shaping lives and impacting our world," and that, in his vision of the Oklahoma Health Center, he "never lost sight of its fundamental education mission." In congratulating Dr. Moreau, Dean Zubialde noted that he "can't think of a finer person that embodies the philosophy and goals behind the award."

Lee Young said, "Dr. Moreau exemplifies exactly what a master teacher is in the inspiration that she gives to her students." He further acknowledged, "It is only fitting that an ophthalmologist should win the award in the year 2020!"

In accepting the Herend porcelain owl as a symbol for the Stanton L. Young Master Teacher Award, Dr. Moreau stated, "I am so touched by this ... award, (which) goes to so many of my students who have inspired me to teach. Patients are the most amazing teachers too! I have gained such a great family on campus, (and it is) just an honor to be part of this family, (with which) teaching has become my favorite daily activity."

Dr. Moreau will be further recognized at the next in-person Stanton L. Young Master Teacher Award dinner and ceremony. ■

Dr. Jamshidi Accepted into Alpha Omega Alpha Honor Medical Society



Farzad Jamshidi, MD, PhD Second-Year Resident

IN JANUARY 2021, the University of Oklahoma (OU) College of Medicine announced its newest Alpha Omega Alpha ($A\Omega A$) Honor Medical Society resident and fellow members. Dean McGee Eye Institute/University of Oklahoma second-year ophthalmology resident, Farzad Jamshidi, MD, PhD, was among those honored.

Membership in A Ω A is awarded to physicians who meet high criteria of academic achievement, leadership, professionalism, service, and excellence in teaching. However, A Ω A membership is regarded as more than an honor. It is an ongoing responsibility and an obligation to continue to demonstrate those outstanding qualities that resulted in a medical student or physician's selection and to never forget the A Ω A motto: "Be Worthy to Serve the Suffering."

Winter 2021 DMEI InVision

invisions: education



The beautiful new adult patient tower at OU Health's University of Oklahoma Medical Center opened in October 2020. When fully open by spring 2021, it will provide 144 additional patient beds and 32 new operating rooms.

R. MICHAEL SIATKOWSKI, MD, MBA DELIVERS 18TH STRAATSMA AWARD LECTURE

ON FEBRUARY 4, 2021, Dr. R. Michael Siatkowski delivered the 18th Annual Straatsma Award Lecture during the virtual 55th Annual Meeting of the Association of University Professors of Ophthalmology (AUPO). The Straatsma Award for Excellence in Resident Education is the highest national honor that can be bestowed on an ophthalmology residency program director. (See DMEI *InVision*, Summer 2020, page 32 for more information.) Dr. Siatkowski's lecture was entitled "The Evolution of Character in Academia." He was introduced by Steven E. Feldon, MD, MBA, the AUPO's executive vice president. ■



Virtual Grand Rounds

ON JANUARY 18, 2021, MORE THAN 50 DEAN MCGEE EYE INSTITUTE (DMEI) RESIDENTS, FELLOWS, AND FACULTY MEMBERS virtually attended a fascinating Grand Rounds presentation by Jennifer D'Agostino, DVM, Dip. ACZM, director of veterinary services for the Oklahoma City Zoo and Botanical Garden. Her presentation was entitled "Comparative Veterinary Anatomy: Treating Ocular Disease in Zoo Species."



Jennifer D'Agostino, DVM, Dip. ACZM

DMEI's Dr. R. Michael Siatkowski helped care for Cindy, the 52-year-old chimpanzee shown in the upper photograph, and also has assisted Dr. D'Agostino in the care of another chimpanzee in the past.

Dr. D'Agostino is a native of Michigan and earned her Bachelor of Science in Veterinary Science and Doctor of Veterinary Medicine degrees from Michigan State University. She completed

two one-year veterinary internships at Kansas State University and a three-year veterinary residency in zoological medicine at Oklahoma State University in Stillwater.

In 2006, Dr. D'Agostino joined The Oklahoma City Zoo as an associate veterinarian. She became the director of veterinary services there in 2008. Dr. D'Agostino has authored or coauthored at least 24 publications in the veterinary medicine literature.





DMEI RANKED 19TH IN FOR FUNDING FROM NATIONAL

of our scientists' impact

in combating blindness.

THE UNIVERSITY OF OKLAHOMA (OU) **COLLEGE OF MEDICINE'S DEPARTMENT** OF OPHTHALMOLOGY, housed within the

Dean McGee Eye Institute (DMEI), has been ranked number 19 in the nation for funding from the National Institutes of Health (NIH), a distinction that reflects the department's broad range of research. It is tenth in the nation among departments affiliated with a public university.

The ranking is by the Blue Ridge Institute for Medical Research, considered the gold standard for medical school research metrics. To reach its number 19 ranking, the Department of

Ophthalmology earned \$6.4 million in NIH grants in federal fiscal year 2019. This research milestone We are incredibly proud points to the department's commitment to advancing patient care through research in all areas of ophthalmology, said Gregory L. Skuta, MD, chair of the department

and DMEI's president and chief executive officer from 2009 to February 28, 2021.

Every researcher in the Department of Ophthalmology is funded at some level of intramural and/or extramural funding, and most have one or more grants from the National Eye

Institute (NEI) and/or other NIH institutes. These grants include investigator-focused awards, such as the K99/R00 Pathway to Independence awards, R21 Exploratory/Developmental Research Grant awards, and R01 Research Project grants. The Department of Ophthalmology also has a P30 Core Grant for Vision Research, which supports training, equipment and expertise for 24 vision research labs at the OU Health Sciences Center (OUHSC) and the Oklahoma Medical Research Foundation (OMRF).

"We are incredibly proud of our scientists' impact in combating blindness," stated Dr. Skuta. "In

> addition to their success in NIH funding, the department and its scientists surpassed the \$6 million mark in cumulative funding from Research to Prevent Blindness in 2019, which ranks 14th in the nation and eighth among public universities."

Researchers bring deep expertise to their investigations of the

mechanisms that underpin blinding diseases. Because blindness is one of the most feared disabilities, research into therapeutic strategies of vision protection is of utmost importance.

Examples of research are numerous. Lea D. Bennett, PhD, is funded by a K99/R00 Pathway

THE NATION INSTITUTES OF HEALTH

BY APRIL WILKERSON

to Independence award. Her research spans translational and basic science, and is focused on clinical skills and methodologies rooted in the investigation of inherited retinal diseases.

Darren J. Lee, PhD, is funded by an R21 Exploratory/Developmental Research grant. His area of expertise is autoimmune uveitis, an inflammation of the eye that can recur and is the third-leading cause of blindness in the United States. His R21 grant supports the generation of a novel line of genetically altered mice whose ocular cells can be easily visualized and tracked. This will allow him to better understand the dynamics of the immune response during autoimmune uveitis and develop therapeutics for that disease.

Another researcher, Daniel J.J. Carr, PhD, who studies the immune response to viral infections of the central nervous system, has been funded by multiple R01 grants. His current NEI grant focuses on the genesis of lymphatic and blood vessels into the cornea during herpes simplex viral infection, as well as identifying mediators that drive these events. These mediators can be inhibited with novel therapeutics, which may prevent recurrence and preserve vision.

Raju V.S. Rajala, PhD, has two R01-funded projects, one of which investigates how cells of the retina communicate with one another, which

is fundamentally important for the regulation of their functions. The insulin-like growth factor 1 receptor is a key factor in several cellular functions of rod and cone photoreceptors, cells whose functionality is critical for vision.

Other NIH-supported basic scientists conducting research at DMEI include Drs. Martin-Paul Agbaga, Michelle C. Callegan, Yan Chen, Michael H. Elliott, and Kevin K. Fuller.

The Department of Ophthalmology's P30 Core Grant for Vision Research was originally awarded to now George Lynn Cross Research Professor Emeritus Robert E. Anderson, MD, PhD, in 1999 to support the laboratories of vision researchers who were awarded R01 grants from the NEI. The modules developed in this \$400,000-per-year core grant include state-of-the art facilities, equipment, and expertise that allow researchers to conduct clinically and translationally relevant analysis of eye structure and function.

"This core support has undoubtedly been a driving factor in recruiting new vision researchers to OUHSC and new non-vision researchers to vision science, as well as having OUHSC remain at the forefront of vision research with vision as one of the most highly funded areas of research on our campus," said Michelle C. Callegan, PhD, director of vision research and current director of the P30 Vision Core.

invisions: education/featured alumnus



Ralph B. Hester III, MD Has Been Improving Patients' Vision at DMEI for 25 Years

BY APRIL WILKERSON

FOR 25 YEARS, RALPH B. HESTER III, MD, HAS COMBINED SURGICAL SKILLS,

innovative technology, and a relationship-based model of care to improve his patients' vision – in many cases turning back the clock to a time when no vision correction was necessary.

Dr. Hester, a graduate of the University of Oklahoma (OU) College of Medicine (Alpha Omega Alpha Honor Medical Society) who completed his residency at the Dean McGee Eye Institute (DMEI), is marking a quarter century of service to DMEI and the patients who rely on him. He has been seeing patients at DMEI's Northwest Oklahoma City clinic since 1996, while also performing surgery and teaching residents at the Oklahoma Health Center location. Since 2011, an optometrist, Dr. Tasha J. Schellenberg, has been integrated into the Northwest Oklahoma City practice, allowing Dr. Hester to focus a greater portion of his attention on premium cataract surgery, a field that has made major advances during his career.

"Premium cataract surgery refers to a premium upgrade to basic or standard cataract surgery," he said. "It describes any kind of technique or special lens that we use in conjunction with cataract surgery to decrease patients' dependence on glasses. The science and technology have been significantly refined so that we can offer our patients great precision."

In 2005-06, the Food and Drug Administration (FDA) began approving advanced technology intraocular lenses (IOLs). The initial lenses corrected astigmatism and gave surgeons the opportunity to improve a component of vision beyond the basic capacity of the lens, thereby offering patients freedom from glasses for certain tasks, Dr. Hester said. Shortly thereafter, manufacturers developed presbyopia-correcting implant lenses, which allowed surgeons to decrease their patients' dependence on glasses for reading.

"When we learned to combine the astigmatism correction with the presbyopia correction, then we could offer patients in certain circumstances complete freedom from glasses – they wouldn't need them for reading or driving or any of their day-to-day activities," he said.

Because IOLs are now in their fourth and fifth generations, the advancements have been significant. For example, Dr. Hester now offers the PanOptix trifocal intraocular lens, which was introduced in the United States in 2019, as an option for many of his patients. However, much of the precision in premium cataract surgery comes from the use of lasers and other sophisticated technology, Dr. Hester said. "We use a femtosecond laser in the operating room suite to cut special incisions on the cornea to eliminate astigmatism, then a separate intraoperative wavefront aberrometer (Optiwave Refractive Analysis-ORA) takes measurements inside the eye during surgery to give us a realtime assessment of which implant would be the best choice for that patient," he said. "These technologies have taken the basic procedure and added a level of refinement and precision that we didn't see before they were available."

In addition to premium cataract surgery for enhanced vision correction, one of the newest technologies for comprehensive ophthalmologists and cataract surgeons like Dr. Hester is MIGS – minimally invasive glaucoma surgery. These procedures involve using microscopic stents and special catheters to re-establish normal flow patterns for fluids inside the eye. In most patients, MIGS eliminates or reduces the need to use medicinal drops in their eyes.

Inside the eye is a tiny circle of meshwork that can become occluded as people age, which may then lead to glaucoma. MIGS allows surgeons to implant stents that bypass the occluded meshwork and help re-establish the flow.

"It's like placing a tiny snorkel from the inside chamber of the eye through the clogged meshwork into the canal that drains fluid out

of the eye," Dr. Hester said. "It prevents the fluid from backing up inside the eye and causing elevated pressures and glaucoma. A very high proportion of my patients are able to completely come off their medications with this procedure,



Ralph B. Hester III, MD Clinical Associate Professor

which is a major benefit. Glaucoma drops can be expensive and irritating to the eyes, and people tend to forget to use them. MIGS provides a long-term surgical solution."

Because ophthalmology innovations advance so rapidly, Dr. Hester said he commits to learning a new technological procedure or surgery every year. That benefits his patients, but it's also part of his role in training residents, who will then begin their own careers skilled in the latest surgical procedures.

Dr. Hester said he appreciates practicing ophthalmology as part of the model at DMEI, which allows him to establish long-term relationships with his patients, including those undergoing cataract surgery.

"Having a relationship with the patient after surgery is important, but having a long-term relationship leading up to the surgery is also important," he said. "When I get to know my patients over years of seeing them, I tend to know what they're going to want before it's time for cataract surgery. We've already talked about it as part of building a relationship. You don't get that if you're in a pure referral type of practice."



















Top: Dr. Jila Noori, a uveitis and medical retina specialist, examines a patient in The Chickasaw Nation Center of Excellence for Diabetic Retinopathy and Macular Degeneration.

Bottom: Dr. Vinay A. Shah evaluates the retina of a patient with indirect ophthalmoscopy.

DMEI'S TALENTED TEAM OF Retina Specialists PROVIDES EXPERT CARE

BY APRIL WILKERSON

AS THE RETINA CONTAINS MILLIONS OF LIGHT-SENSING CELLS THAT RECEIVE AND ORGANIZE VISUAL INFORMATION, IT IS CRUCIAL FOR ENABLING VISION. TO SAFEGUARD THAT ESSENTIAL ROLE, THE DEAN MCGEE EYE INSTITUTE'S (DMEI'S) CADRE OF SIX RETINA SPECIALISTS PROVIDES A BREADTH AND DEPTH OF EXPERTISE TO CARE FOR PATIENTS WITH THE WIDE VARIETY OF CONDITIONS THAT CAN THREATEN THE RETINA, THE TWO MOST COMMON BEING DIABETIC RETINOPATHY AND AGE-RELATED MACULAR DEGENERATION.

The Chickasaw Nation Center of Excellence for Diabetic Retinopathy and Macular Degeneration, the home of DMEI's retina service, is located on the third floor of the Institute's Thomas E. Acers, MD Pavilion. It is a spacious, state-of-the-art facility that provides access to a full array of retinal imaging modalities. These include widefield fundus photography, fluorescein angiography, optical coherence tomography (OCT), OCT angiography, electroretinography, ultrasonography, and microperimetry.

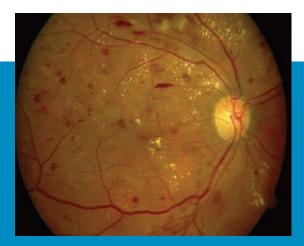
"The Dean McGee Eye Institute is very fortunate to have outstanding facilities but, even more importantly, such a dedicated and exceptional team of medical and surgical retina specialists," said Dr. Gregory L. Skuta, DMEI's president and chief executive officer and chair of the University of Oklahoma



Retinal blood vessels emanate from the optic nerve seen at the right side of the photograph. The part of the retina seen in the center of the photograph is called the macula, which is the most sensitive part of the retina and provides the best vision for distance and reading.

feature focus

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In this patient with severe nonproliferative diabetic retinopathy, areas of hemorrhage and (yellow) exudates can be seen.

(OU) Department of Ophthalmology from 2009 to February 28, 2021. "Given their wideranging backgrounds, training, and experience, they are well equipped to provide thorough clinical evaluations as well as the very latest in diagnostic technologies and treatments. Even during the COVID-19 pandemic, DMEI's retina doctors and their staff have ensured that patients receive the care they need to protect their vision."

Uncontrolled diabetes can lead to diabetic retinopathy, the leading cause of blindness in the United States among people of working age. As a microvascular disease, diabetes can affect the eyes in several ways, notably swelling of the retina, bleeding in the retina, or scar tissue that can cause the retina to detach, potentially resulting in severe visual loss. In years past, lasers were the primary means of treating the problem. However, the advancement of intravitreal injections directly into the

eye and advanced surgical techniques have revolutionized treatment and improved visual outcomes for diabetic eye disease.

"Traditional treatment includes laser to cauterize blood vessels that were bleeding or cauterize the areas that weren't getting enough oxygen, which improves the long-term visual outcome," said medical retina specialist Ronald M. Kingsley, MD, a clinical professor at DMEI and in the OU Department of Ophthalmology. "Today, we still use the laser as an important treatment, but injections of antivascular endothelial growth factor (anti-VEGF) agents have created a paradigm shift in the management of diabetic retinopathy and other retinal conditions such as age-related macular degeneration."

Age-related macular degeneration (AMD) — both "wet" and "dry" types — occurs when the macula, the best-seeing portion of the retina, is damaged, causing a loss of central vision. Dry AMD makes up about 80% of cases, and, even though a healthy lifestyle and cessation of smoking can help, there is currently no Food and Drug Administration (FDA)-approved treatment. Antioxidant vitamins can slow its progression by about 25%. However, AMD is still the leading cause of blindness in patients age 65 and older in the United States.

Wet AMD, which occurs when abnormal blood vessels grow underneath the retina, is less common but more serious. People with dry AMD may convert to the wet form, which causes acute vision problems. Standard treatment for wet AMD is intravitreal injections, similar to those used to treat diabetic retinopathy. As noted above, injections deliver



This patient has a prominent hemorrhage in the central macula due to the "wet" type of age-related macular degeneration.

medications that block VEGF, a molecule that is essential for life but expresses itself in negative ways in the eye during AMD and diabetic retinopathy. Medications prevent the scarring that can damage the retina and cloud vision.

"Injections for wet AMD are very successful," said retinal surgeon Vinay A. Shah, MD. "They provide about 90% stabilization of the disease and about a 30-40% chance of visual improvement. The shots are given anywhere from once a month to once every two months."

Dr. Shah, who is the Thelma Gaylord clinical professor of ophthalmology (see pages 8-9), is leading a novel

response to the COVID-19 pandemic that allows patients to continue receiving their injections while maintaining their safety. At least twice a

month, DMEI sets up a tent in the parking lot, where patients drive up to check in. They stay in their cars until they are notified that it is time for their injection. At that time, they come through a back door to a nearby room, where they are given their injection. The entire process takes about 15 minutes and their exposure to others is greatly minimized.

"Many of our patients receiving injections are over 65, which puts them at higher risk of complications should they get COVID-19," Dr. Shah said. "With this approach, they are not mingling with other patients in a waiting room. They receive their injections in rooms by themselves, then they're escorted back to their cars."

DMEI physicians also treat patients for a variety

of other less common retinal conditions, including endophthalmitis, or an infection inside the eye, which is treated either by antibiotics in the eye and/or surgery. They also see patients for macular pucker, or scar tissue on the central retina, as well as holes in the macula, both of which may be treated surgically. DMEI's retinal surgeons (Drs. Shah, Reagan H. Bradford Jr., and Sun Young Lee) have significant experience in repairing both simple and complex retinal

detachments. They provide their cutting-edge surgical procedures at the McGee Eye Surgery Center and OU Medical Center Surgery Center,

Dr. Shah is leading a novel response to the COVID-19 pandemic that allows patients to continue receiving their injections while maintaining their safety.

feature focus

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Carmen A. Morales, patient service representative, checking in a retinal "injection patient." Photo Credit: Matt Skuta

both of which are located on the Oklahoma Health Center campus.

Another special service provided by the DMEI retina team is uveitis, or inflammation of the eye, which can impact vision if not treated. Jila Noori, MD, spends most of her clinical time seeing patients with uveitis, which can affect the front, middle, or back of the eye and, at times, the tissues of the entire eye. She also spends about one fourth of her practice time managing medical retinal diseases such as diabetic retinopathy and AMD.

Uveitis often occurs in people who are already living with autoimmune conditions like lupus, rheumatoid arthritis, inflammatory bowel disease, and others. "For that reason, I collaborate with the patient's primary care

doctor and rheumatologist," Dr. Noori, a clinical assistant professor, said. "Treating uveitis is not a situation where I see the patient and always make a decision about their treatment at the same session. It's a back-and-forth interaction with other health care providers to make the best treatment decision for this individual patient. Because uveitis also occurs in children, we work with pediatric rheumatologists to make choices that will preserve a child's vision for the long term."

Uveitis toward the front of the eye is often treated with topical drops or periocular steroid injections to control the inflammation. But when the inflammation moves toward the back of the eye, patients may require systemic steroids, mostly oral, but in rare cases, by intravenous (IV) administration. If the inflammation still can't be controlled, the patient may need to start an immunosuppressive program.

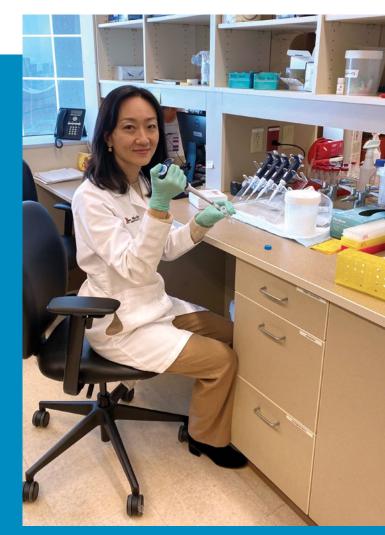
"However, because of COVID-19, currently I prefer to postpone the start of immunosuppressive treatment as much as possible because there's a concern that it would make patients more susceptible to the virus," Dr. Noori said. "On the other hand, I don't want to compromise the care they need to preserve their vision. It's important to balance the pros and cons of treatment."

DMEI also provides expertise in inherited retinal diseases. Sun Young Lee, MD, PhD, is an assistant professor who is fellowship-trained in genetic conditions and, as a clinician-scientist and researcher, engages in a variety of clinical and basic science investigations. The two most common inherited retinal diseases she treats are retinitis pigmentosa and Stargardt disease, which often cause vision loss in both eyes beginning early in life. Dr. Lee sometimes treats multiple members of the same family, and because her expertise is rare in this region, she often sees patients from states surrounding Oklahoma.

In her laboratory, she seeks to find solutions for retinal fibrosis and scarring, which are seen in many major retinal diseases, including AMD, diabetic retinopathy, and proliferative vitreoretinopathy. Her surgical patients are generous in allowing her to collect their vitreous samples, which she analyzes to better understand the disease process and to potentially create new therapeutic strategies.

"My career goal as a clinician-scientist spans anywhere from the laboratory bench to the patient's bedside," Dr. Lee said. "Translational research is a means of improving patient care by applying our knowledge from basic science to address critical medical needs, and ophthalmology is one of the most rapidly advancing fields of medicine."

Dr. Lee, as well as several of her colleagues, also have leadership roles in national clinical



Sun Young Lee, MD, PhD, assistant professor, is a clinician-scientist with a research interest in retinal fibrosis and scarring, particularly in how these processes relate to proliferative vitreoretinopathy.

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trials. She is the principal investigator for a clinical trial seeking a new treatment for dry AMD, and she will soon help lead a large clinical trial studying a new treatment for

retinitis pigmentosa. Reagan H. Bradford Jr., MD, a clinical professor at DMEI/OU, has also been involved in several clinical trials in addition to his busy clinical and surgical practice, including the Endophthalmitis Vitrectomy Study, the Collaborative Ocular Melanoma Study,

physicians travel regularly to satellite locations in Lawton, Enid, and Shawnee to see patients.

extends across the state, as

DMEI's retinal expertise

and the Comparison of Age-Related Macular Degeneration Treatment Trial.

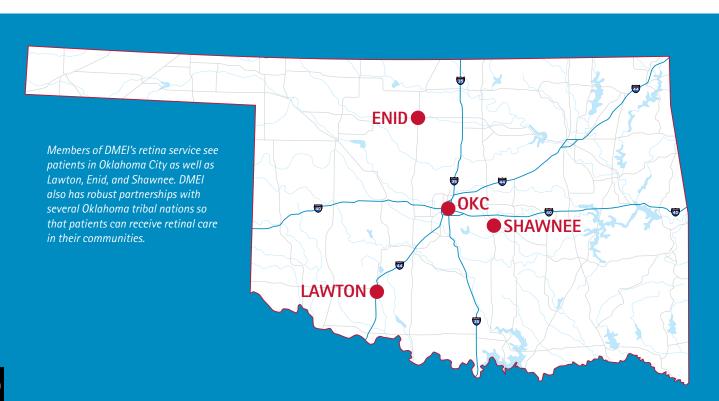
DMEI's retinal expertise extends across the state, as physicians travel regularly to satellite

locations in Lawton, Enid, and Shawnee to see patients. DMEI also has robust partnerships with several Oklahoma tribal nations so that patients can receive retinal care in their communities.

Stephen R. Fransen, MD, provides most of that tribal care, driving many days each month to care for his patients in the communities where they live, an approach not unlike the early days of medicine when physicians made house calls.

"It makes sense to go out where the patients are as opposed to asking

them to drive to Oklahoma City, which some of them would be unable to do," Dr. Fransen, an associate professor, said. "They receive the same level of care that they would receive



if they drove to DMEI. I enjoy going to small towns and knowing my patients and their family members. I can do things to improve people's quality of life through vision, but building relationships is also important, especially in situations where their disease progresses and we can't get the outcome they want. It's a very rewarding way to practice medicine."

Dr. Fransen is engaged in another endeavor that he hopes will improve the future of ophthalmology. He commercialized his research with OU into a company called Retinal Care. His aim is to create scalable methods of providing individual patient care opportunities on a population level. Using artificial intelligence, his company is collecting data and building models to predict who is at highest risk of retinal disease, then focusing care coordination resources on that population. Studies show that in most areas of medicine, about four or five people out of every 100 need more focused resources.

"It's a combination of understanding who's at greatest risk, then making sure those people get the care they need," he said. "That's the approach we're taking – we know we have good treatments that work for individual patients, so how do we get those same results for the whole population of people at risk?"

To better meet the needs of Oklahomans with regard to diabetic retinopathy, AMD, and other retinal conditions, the DMEI retina service



Vicky L. Wolzen (right), diagnostic imaging manager, with patient (left) undergoing optical coherence tomography (OCT) testing.

hopes to recruit an additional surgeon during the next year and expand its offerings further.

"We want to make very sure that we are well positioned to provide the full spectrum of retinal services while also advancing scientific discovery in the years ahead in order to fulfill our mission of excellence and leadership in patient care, education, and vision research," concluded Dr. Skuta.







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The Dean McGee Eye Institute is dedicated to serving all Oklahomans and the global community through excellence and leadership in patient care, education, and vision research.

INVISION

inside this issue:

7 Myths and Realities About DMEI p. 12

DMEI Continues Partnership with OKC Thunder p. 27

Dr. Ralph B. Hester III Serving Patients at DMEI for 25 Years p. 42

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