

UMASS INSIGHT

News from the Department of Ophthalmology & Visual Sciences



UMASS MEMORIAL
EYE CENTER

Winter 2020

INSIGHT FROM THE SVP, CHIEF TRANSFORMATION OFFICER AND CIO

Our patients, community and caregivers can all be very grateful for your commitments to excellence and exceptional teamwork that have resulted in many outstanding improvements over the last several years. You're simply amazing!

My team (Clinical Engineering, Center for Innovation and Transformational Change, Information Services) and I truly appreciate every opportunity we have to work with you. Through outstanding collaboration, we worked to create a state-of-the-art UMass Memorial Eye Center through the following activities:

- Deployed Lean training/idea systems and partnered to implement a series of your original ideas to improve patient flow, eliminate waste and create a world-class patient experience.
 - Implemented state-of-the-art technology and electronic health records that actively engage patients in their care by impressively displaying images on large screens.
 - Integrated information systems to support the collaboration with Boston Children's Hospital and offer children in our community convenient, close-to-home access to expert eye care.
 - Opened a state-of-the-art eye clinic at Northborough Crossing.
- Also, as a patient of yours, I would like to thank you for taking such great care of me. Your dedication to excellence clearly showed as my patient experience from scheduling, to arrival, to treatment and follow-up was exceptional. You rock!

You're an exceptional team and have produced outstanding results. I'm very proud of you and can't wait to see what you do next. Thanks for all you do to make UMass Memorial Health Care the *Best Place to Give Care, Best Place to Get Care*. Keep it up!

Tim Tarnowski

SVP, Chief Transformation Officer and CIO



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UMASS INSIGHT

News from the Department of Ophthalmology & Visual Sciences

FROM THE CHAIR

Dear Colleagues and Friends,

The Department of Ophthalmology and Visual Sciences had a great year in 2019. There were numerous significant achievements that can be summarized according to our four missions:

Clinical Mission: We provided excellent patient care and finished the year 54% ahead of last year and 37% ahead of budget. We doubled our operating room cases in comparison to last year. All providers performed better than budget and most performed better than the average ophthalmologist in an academic setting. We feel that the Worcester community and our internal community trusts us with their eye care, which is a great privilege for us.

Research Mission: We doubled our research funding and became ranked the #2 ophthalmology department in the New England area in terms of funded research.



Educational Mission: We started a NEW ophthalmology residency program. This is the first new ophthalmology program that was approved in the past 20 years, and the first ophthalmology training program at the University of Massachusetts Medical School.

Community Outreach Mission: We started an ophthalmic techs training program that is geared toward training people from our community. Three top graduates of our program were hired this year to work at the UMass Memorial Eye Center, and all three are fabulous! I'm proud that the **Eye Team**

we formed has a sense of family, a sense of belonging and a sense of who we are. We truly care about each other and about our patients. I'm lucky to be working with such a dedicated, creative, motivated group of people, who continuously innovate, progress, and think about how to make things better for us and for our patients.

Shlomit Schaal, MD, PhD

Professor and Department Chair

EYE CENTER NAMED AS AN INNOVATOR OF THE YEAR FINALIST FOR THIRD CONSECUTIVE YEAR

They say "good things come in threes," and that's certainly the case with the UMass Memorial Eye Center's Innovators of the Year history! For the third year in a row, the Eye Center has won a coveted spot as a member of the Innovators of the Year's Sweet 16! Out of dozens of ideas nominated for the award systemwide, the Eye Center's "Blue Line" project was recognized as one of the top sixteen ideas of 2019!

The Blue Line concept was an idea to help eliminate overcrowding at the registration desk in the main lobby and improve patient wait times – a result of enormous growth within the department over the past three years. Rather than stand in line at the Eye Center's front desk to register, akin to the Wizard of Oz, patients now are directed to "Follow the Blue Line" to the registration desk in our Retina Waiting Area where they can register, typically without a wait. To bring this idea to life, the team identified a way to streamline the

registration process by directing patients to another registration spot without the need for a staff escort, and without getting them lost along the way. Together, staff members came up with the idea of creating a "Blue Line" on the floor that patients easily could follow to the alternative check-in area. *continued on page 3*



EYE CENTER NAMED AS AN INNOVATOR OF THE YEAR FINALIST *continued from page 2*

In addition to improving patient wait times, the idea is allowing patient volume to be shared between the two registration areas, which is resulting in more time for front-desk staff to address other clinic needs.

“Everybody loves the new way of doing things,” said **Brittany Hynes**, ambulatory service representative. “They said they hope we never stop doing the retina area check-in and check-out because it’s just working out and it’s definitely eliminated wait time.”

“These 16 finalists represent the ‘best of the best’ of our everyday innovators from nominations by their peers,” wrote **Eric Dickson, MD**, president and CEO, UMass Memorial Health Care, in the Sweet 16 announcement letter. “They were chosen based on: team member engagement in huddles, use of visual management and True North metrics, and celebration of ideas and each other.”

Congratulations to the entire Eye Team for implementing this outstanding idea that’s improving the patient experience for everyone, everyday.



PATIENT INSIGHT

PATIENT SETS SIGHTS ON NEW OPPORTUNITIES FOLLOWING VISION FAILURE

UMass Memorial Eye Center patient, Attorney Liz Myska, JD, LL.M., has retinitis pigmentosa (RP) – a progressive condition that will, over time, rob Liz of her vision. With no treatment or cure for RP, Liz understood her career as a real estate attorney, which centered upon her ability to drive, was in jeopardy. Upon being deemed legally blind in 2008, Liz returned to law school to earn her Master of Laws (LL.M.) in Elder Law and Estate Planning. While obtaining her degree, Liz realized that the elderly and the disabled have much in common. “They are disrespected: disenfranchised, disempowered and dismissed,” she said. She took issue with this, and decided to combine her skillset as a lawyer with her newfound skill as a visually impaired person (VIP) to



head off in new directions. “I didn’t like being identified as ‘disabled’ or ‘blind,’ so I began to refer to myself as a VIP who is ‘differently abled,’” explained Liz. “This permits me to use my experience as a VIP to inform myself and teach others, both sighted and non.”

In addition to practicing law, Liz is a member of the Worcester Commission on Disabilities, established a consulting business, and co-founded Walkfit, an initiative to encourage involvement and movement.

At the invitation of her physician, **Shlomit Schaal, MD, PhD**, chair of the Department of Ophthalmology and Visual Sciences, Liz recently spoke at a vision seminar where she offered medical practitioners one patient’s perspective. “It’s an honor to be able to co-author my story in concert with others, particularly with top-notch experts like Dr. Schaal.”

EDUCATIONAL INSIGHT

TECH TRAINING PROGRAM

The UMass Memorial Eye Center is growing! It takes a hard-working team of employees and great leadership to get where we are today, and the Eye Center employees are all dedicated and active in the growth of our department. Our team

meets every week to identify ways to improve operations, and we've grown from zero ideas three years ago, to implementing more than 85 ideas in 2019 alone!

However, with our growth also come challenges. One of our biggest opportunities is finding experienced ophthalmic assistants (OAs). OAs are an intricate part of the eye exam and perform specialized testing. Without their valuable contributions, most ophthalmologists could only see a fraction of the patients they see daily. It's these contributions that help the Eye Center deliver great patient care.

Our challenge going forward is that there's a national shortage of trained and qualified ophthalmic personnel. Compounding these staffing needs is a lack of accredited programs to train students as certified Joint Commission for Allied Health Personnel in Ophthalmology (JCAHPO) Allied Health personnel. To quote a recent article by the American Academy of Ophthalmology:

"For more than a decade, a shortage of qualified ophthalmic medical personnel has existed in most communities nationwide. Today it is estimated that there is a need for an additional 6,000 ophthalmic medical personnel in this country. With challenges such as workforce shortages, an aging population, and technology advances, the need for skilled, competent ophthalmic technical staff continues to grow, while the numbers of individuals entering this field are not growing at the same rate."



Left to right: Brittany Hynes, Shayina Calixto, Darlene Bocash-Winn and Nichole Lusk.

Darlene Bocash-Winn, COMT, manager of the Eye Center, has worked in ophthalmology for 35 years. Darlene graduated from the Boston University (BU) School of Medicine Ophthalmic Technology

Program, which at the time was the only accredited program in New England. She earned an Ophthalmic Medical Technology Degree and was able to sit for her certifying Ophthalmic Medical Technology exam (the highest level offered by JCAHPO) in 1998, making her one of only 211 COMTs worldwide. Today, there are just over 900 COMTs worldwide.

When BU's program closed in the mid-90s, Darlene found that she was unable to hire qualified experienced ophthalmic assistants. With no qualified accredited training programs in New England, this issue has become progressively worse. Upon joining UMass Memorial in 2017, Darlene took matters into her own hands and contacted Quinsigamond Community College to begin an ophthalmic assistant training program where she teaches one to two nights/week. The program has been extremely successful and has already resulted in the hiring of three students who've hit the ground running – helping with patient flow and care, and helping the ophthalmologists deliver the best care possible to their patients. These students now are poised to work toward becoming JCAHPO certified.

Darlene's next goal for the Eye Center is to build an accredited program, much like the one she graduated from at BU. This will not only help feed interns into the department, but also will supply the department with well-trained, high-quality team members.

RESIDENT INSIGHT

NEW EYE SIMULATOR FOR UMASS OPHTHALMOLOGY RESIDENTS

The Ophthalmology Residency Program at the University of Massachusetts Medical School recently introduced a brand new, state-of-the-art surgical and medical simulator to the Department. After an orientation and training session in July, the residents have now started to use the surgical simulators as often as weekly for clinical and surgical skills practice.

VRmagic Eyesi simulator, a component of only a handful of residency programs in the country, can be used in various ways. Three different Eyesi simulator stations are now a part of the Surgical Simulation Lab at the Medical School: a surgical simulator, indirect ophthalmoscope and direct ophthalmoscope. The high-end virtual reality surgical simulator includes interfaces to practice cataract as well as vitreoretinal cases, and even to manage complications. Software modules at the station consist of training content that residents can use for basic skills training, to try their hand at case-based examples with varying levels of difficulty, and track their progress with module assessments.

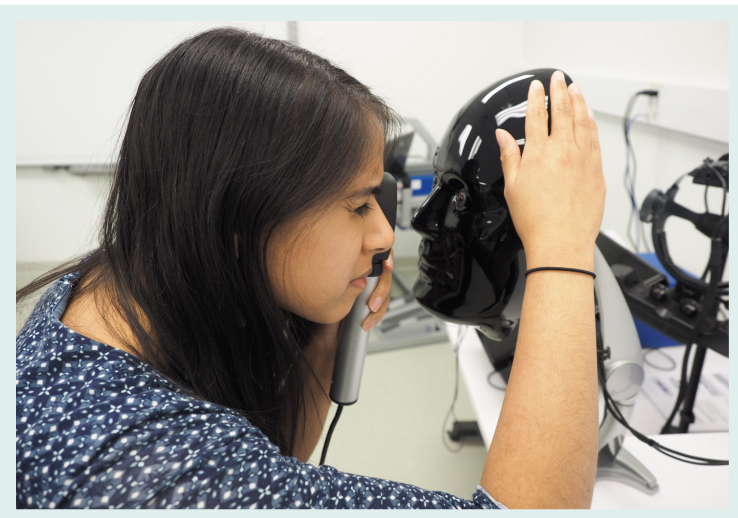
The ophthalmoscope portions are also extremely beneficial to both residents and medical students. Like



Saad Al-kadhi, MD, MS, (PGY-2)

the surgical simulator, the indirect ophthalmoscope is made up of a curriculum for self-guided training with retinal exam cases of increasing difficulty. The direct ophthalmoscope is often a skill known to be challenging for new medical students, and the simulator offers opportunities for collaboration between the ophthalmology residents and the medical school to help students with device handling and identifying pathology.

With performance summaries and clinically relevant cases, ophthalmology residents are able to better prepare themselves as clinicians seeing patients and also to be more prepared for surgical eye cases in the operating room. Many studies in the literature have shown the effectiveness of practicing on a surgical simulator as a beginner or an experienced surgeon. In particular, learning barriers to skills such as phacoemulsification can be broken down with virtual reality practice, and complication rates are often lower amongst trainees who have utilized it. Medical School ophthalmology residents are able to access the simulator anytime throughout their training. The possibilities for learning and skills improvement are endless with the new Eyesi skills simulator.



Soraiya Thura, MD, (PGY-2)

FACULTY INSIGHT

DR. JOHANNA SEDDON HONORED AS MEMBER OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY (AOS)

Johanna M. Seddon, MD, ScM, Professor of Ophthalmology, Director of Retina and Director of the Macular Degeneration Center of Excellence in the Department of Ophthalmology and Visual Sciences, University of Massachusetts Medical School, Worcester, MA, was inducted as a member into the celebrated American Ophthalmological Society (AOS) for her distinguished contributions to the fields of ophthalmology, retina and macular degeneration.

She presented her talk as a newly elected member at the annual AOS meeting in White Sulphur Springs, West Virginia, on May 18, 2019. Her presentation was a summary of her thesis “Validated Prediction Models for Macular Degeneration Progression and Predictors of Visual Acuity Loss Identify High-Risk Individuals,” which was published in the American Journal of Ophthalmology in February, 2019. Dr. Seddon pioneered the field of prediction modeling with algorithms that include both modifiable and genetic factors that her team discovered. These models discriminate between high- and low-risk groups with impact on precision medicine and early intervention. Her talk was favorably reviewed and discussed by Professor Timothy Olsen, MD, Department of Ophthalmology, Mayo Clinic, Rochester, MN.



Johanna M. Seddon, MD, ScM

Dr. Seddon is one of a minority of women members in the 150 year history of the AOS. She was the first female vitreo-retinal surgical fellow at Mass. Eye and Ear Infirmary and the first ophthalmologist to have obtained a graduate degree in epidemiology at the Harvard School of Public Health. She also initiated and conducted the first study that demonstrated the beneficial effect of dietary lutein and zeaxanthin on risk of macular degeneration, which is now part of the management of this disease worldwide. Her team was the first to identify macular degeneration genes in the high-density lipoprotein, vascular endothelial growth and collagen extracellular matrix pathways, and most notably she reported the first high-risk genetic variants in the complement pathway causing early onset macular degeneration.

The American Ophthalmological Society (AOS) is a medical society of ophthalmologists and the second oldest specialty medical society in the United States. It was founded in 1864 during the Civil War as the first specialty society in this country and just 13 years after Helmholtz invented the ophthalmoscope. The AOS membership has served to influence virtually every facet of American ophthalmology and the society has proudly sustained its original purpose, “the advancement of ophthalmic science and art.”

COMMUNITY INSIGHT

EYES TO THE PAST EXHIBIT DRAWS LARGE CROWD - OCTOBER 31, 2019

Candy may have been involved, but the UMass Memorial Eye Center played no tricks when they treated visitors to their Eyes to the Past presentation at the Lamar Soutter Library at the University of Massachusetts Medical School. After receiving a fascinating collection of ophthalmology-related artifacts from the Hartford Medical Society Historical Library at UCONN Health, **Shlomit Schaal, MD, PhD**, professor and chair of the Department of Ophthalmology and Visual Sciences, planned an informational meeting where guests were invited to view the ophthalmic tools of the past and listen to a few presentations on how advancements in technology have altered and improved the way eye care is delivered today.

Lauren Colwell, MD Candidate 2020, UMass Medical School; **Hemant Khanna, PhD**, principal investigator and associate professor, UMass Medical School; and **Haijiang Lin, MD, PhD**, ophthalmologist, UMass Memorial Medical Center and associate professor and director of translational research, UMass Medical School; presented to an attentive



crowd in the overflowing Rare Books Room in the library. Ms. Colwell reviewed the various relics included in the historical collection, followed by Dr. Khanna who discussed the learnings gathered from gene therapy over the years, and Dr. Lin concluded the presentation

with a glimpse into how computer technology/artificial intelligence has opened the door to more precise treatments and faster recovery times.

The Department of Ophthalmology and Visual Sciences and the Lamar Soutter Library would like to thank and acknowledge the Hartford Medical Society Historical Library at UCONN Health for the loan of the collection of historical ophthalmology items. Special thanks to **Mary Piorun, PhD**, director of the Lamar Soutter Library at UMass Medical School; **Jessica Kilham**, manager, Library Education and Clinical Services, Lamar Soutter Library, UMass Medical School; **Themia Pappas-Fillmore**, coordinator, Publications and Design, Surgical Administrative Service Group (ASG), UMass Medical School; **Maria Leitao-Pina, MBA**, academic administrator, Surgical ASG, UMass Medical School; and **Sharon Furbish**, executive assistant, UMass Memorial Medical Center; for their assistance in coordinating this wonderful program.



UMASS INSIGHT

News from the Department of Ophthalmology & Visual Sciences

STAFF INSIGHT

DIAMOND PARRILLA

My name is **Diamond Parrilla**. I joined the UMass Memorial Eye Center in 2017. Working at the Eye Center has been one adventure after another.

After transferring from the UMass Memorial Medical Center – University Campus Emergency Department, I started at the front desk at the Eye Center as an Ambulatory Service Representative (ASR). Soon thereafter, I became an administrative secretary. I now work as the lead ASR/administrative secretary. During my time here, I also assisted in the



new residency program as a co-coordinator. Each of these roles have given me the experience to become an even better leader.

The staff at the Eye Center truly works as a team. We like to consider each other as “family.” The providers and staff deliver the best care to our patients but there’s always room for improvement. We always look for new and innovative ways to grow, change, and better ourselves and the department.

I look forward to growing with the Eye Center. I believe the future holds great things for our department and I cannot wait to be part of it.



Happy Holidays!



OPHTHALMOLOGY RETREAT AT THE BEECHWOOD - DECEMBER 6, 2019

Find us online for the latest, research, publications, faculty updates & more at www.umassmed.edu/ophthalmology.

