

Bascom Palmer Eye Institute® | University of Miami Health System



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Images

We Salute Our Heroes

COVID-19
Accelerates Innovation

Bascom Palmer Ranked
No.1 in U.S. Again



Bascom Palmer Eye Institute's mission is to enhance the quality of life by improving sight, preventing blindness, and advancing ophthalmic knowledge through compassionate patient care and innovative vision research.



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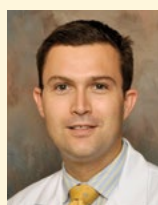
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ON THE COVER
GUILLERMO AMESCUA, M.D.
Associate Professor of
Clinical Ophthalmology



Bascom Palmer celebrates the anniversary of 100 gene therapy cases performed. Our surgical team consisting of scrub tech **ACHELY JOSEPH, DR. JANET DAVIS, DR. NINEL GREGORI,** and circulating nurse **URIEL GONZALEZ.** Also present for all cases was **DR. BYRON LAM** (not pictured).

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Turning a Challenge into New Opportunities

Dear Friends and Colleagues:



Our world has changed dramatically since we celebrated the arrival of 2020. Bascom Palmer Eye Institute, along with vision professionals throughout the U.S. and around the world, were faced with the challenge of delivering vision care during the COVID-19 pandemic.

This issue of *Images* focuses on the heroic accomplishments of our Institute's team in responding to this public health crisis. I am so very proud of our physicians, residents, fellows, nurses, technicians and other staff members. Many of them risked their own personal safety to assist our patients, maintain our facilities, and keep our research and education programs going.

Back in March, the dangerous COVID-19 outbreak required us to make dramatic adjustments in our operations. Our emergency department stayed open to treat patients who needed urgent care, while our physicians in Miami, Plantation, Palm Beach Gardens, and Naples continued to serve their communities through telehealth and limited clinic visits.

Now, we are gradually expanding our services, which include elective surgery, while continuing to make safety a top priority for everyone. While the pandemic is far from over, we have new protocols and processes in place to minimize risk throughout our organization.

In addition, our team has been able to turn the COVID-19 challenge into new opportunities to deliver clinical care more effectively, while advancing Bascom Palmer's research collaborations and medical education programs throughout the world.

One example is our innovative approach to telehealth. Our skilled ophthalmologists can now conduct vision evaluations, consultations, and some types of eye examinations with patients and families in their homes. When on-site imaging or another test is needed, our team came up with the concept of hybrid visits. Our technician conducts the testing, and our physician follows up with the results after the patient returns home.

We are also moving ahead with other innovations in ophthalmic technology, such as remote slit lamps for diagnostic imaging and testing devices that patients can use at home, as well as artificial intelligence systems to detect eye diseases with a vast databank of images and use of data available in the electronic health record.

Regardless of what the next few years have in store, we are committed to excellence in every aspect of our mission. I am confident that Bascom Palmer will continue to play a leading role in advancing every field of ophthalmology. Thank you for your support.

Sincerely,

Eduardo C. Alfonso, M.D.
Kathleen and Stanley J. Glaser Chair in Ophthalmology
Director, Bascom Palmer Eye Institute

We Salute Our Heroes

The COVID-19 pandemic has given Bascom Palmer an opportunity to critically examine its processes and develop new ideas, instruments, and protocols that will serve patients, education, and research now and into the future.



Dr. Nathan Pirakitikulr, Dr. Guillermo Amescua

In early March, **GUILLERMO AMESCUA, M.D.**, saved the vision of an elderly woman with a rare autoimmune disease that can scar the surface of the eye. “She had already lost one eye to OCP (ocular cicatricial pemphigoid), but we were able to surgically repair the conjunctiva in her other eye,” said Amescua, associate professor of clinical ophthalmology and medical director of Bascom Palmer’s ocular surface program.

Two weeks later, Amescua’s patient developed an inflammation that needed medical treatment. But in the meantime, Bascom Palmer had implemented new protocols to protect patients, physicians, nurses, researchers, and other staff members from the dangerous COVID-19 virus.

Rather than have her return to the clinic, Amescua arranged a series of video telehealth visits with the help of the patient’s daughter. “I prescribed medication for her eye, and the inflammation responded well to treatment,” he said. “Now, she can

walk by herself and manage her daily activities again. It’s a great example of how we adapt to changing circumstances and continue to deliver the best possible care for our patients.”

Through emergency surgery, timely clinic visits, video conferences, and old-fashioned phone calls, Bascom Palmer’s physicians have continued providing the best possible patient care despite the many challenges of COVID-19.

An expert in ocular infectious diseases, Bascom Palmer’s director, **EDUARDO C. ALFONSO, M.D.**, paid close attention to COVID-19 when the first reports surfaced in China and conferred with experts at the Centers for Disease Control and Prevention (CDC), the University of Miami, and other national and international organizations. Those discussions facilitated the dramatic changes in Bascom Palmer’s operations in mid-March. “Since then, I have met regularly with our faculty, administration, physicians, and scientists to determine what’s best for our patients,” said Alfonso, the Kathleen and Stanley J. Glaser Chair in Ophthalmology. “The COVID-19 pandemic has given us an opportunity to critically examine our processes and develop new ideas, instruments, and protocols that will serve patients, education, and research now and into the future.”

“The real heroes during the pandemic have been our residents and fellows,” said **STEVEN J. GEDDE, M.D.**, professor of ophthalmology; the John G. Clarkson Chair in Ophthalmology; vice chair of education; and residency program director. “They have been our frontline providers in our emergency department and our affiliated hospitals, and have done a beautiful job of shouldering the burden of patient care during this unusual time.”

The global COVID-19 public health threat has touched every aspect of the Institute’s clinical operations. “We have been focused on balancing risks and benefits for our patients, while protecting our employees,” said **ELIZABETH A. HODAPP, M.D.**, associate professor of clinical ophthalmology, and medical director of clinic operations and quality.



“Every step of our clinical operations has been given careful consideration along with multiple reviews by our leadership.”

Along with the physicians, fellows, and residents, Bascom Palmer’s support teams have played a pivotal role in the Institute’s ability to continue to serve the community. “Bascom Palmer is number one in the country because of our staff, as well as our physicians,” said **ANTHONY GARAND**, executive director for the Naples and Palm Beach Gardens satellite facilities. “Today, the most important people in the buildings are the housekeepers who clean the equipment, the waiting areas, the elevators, and the bathrooms. They are the unsung heroes who work behind the scenes to help provide a safe and comfortable experience for all our patients.”

The Institute’s vision research work has also been dramatically affected by COVID-19. Most clinical studies have been put on hold, although some basic science projects have continued in the laboratories. Several researchers have launched projects related to COVID-19 and the eye (see related article on page 17), while others have used their extra time to prepare grant proposals or write up findings from completed studies for professional publications.

Another adjustment has been a shift in medical education from in-person to remote learning. In some cases, that has proven to be an unexpected benefit, as lectures, grand rounds and journal club sessions can now be accessed by vision professionals around the world.

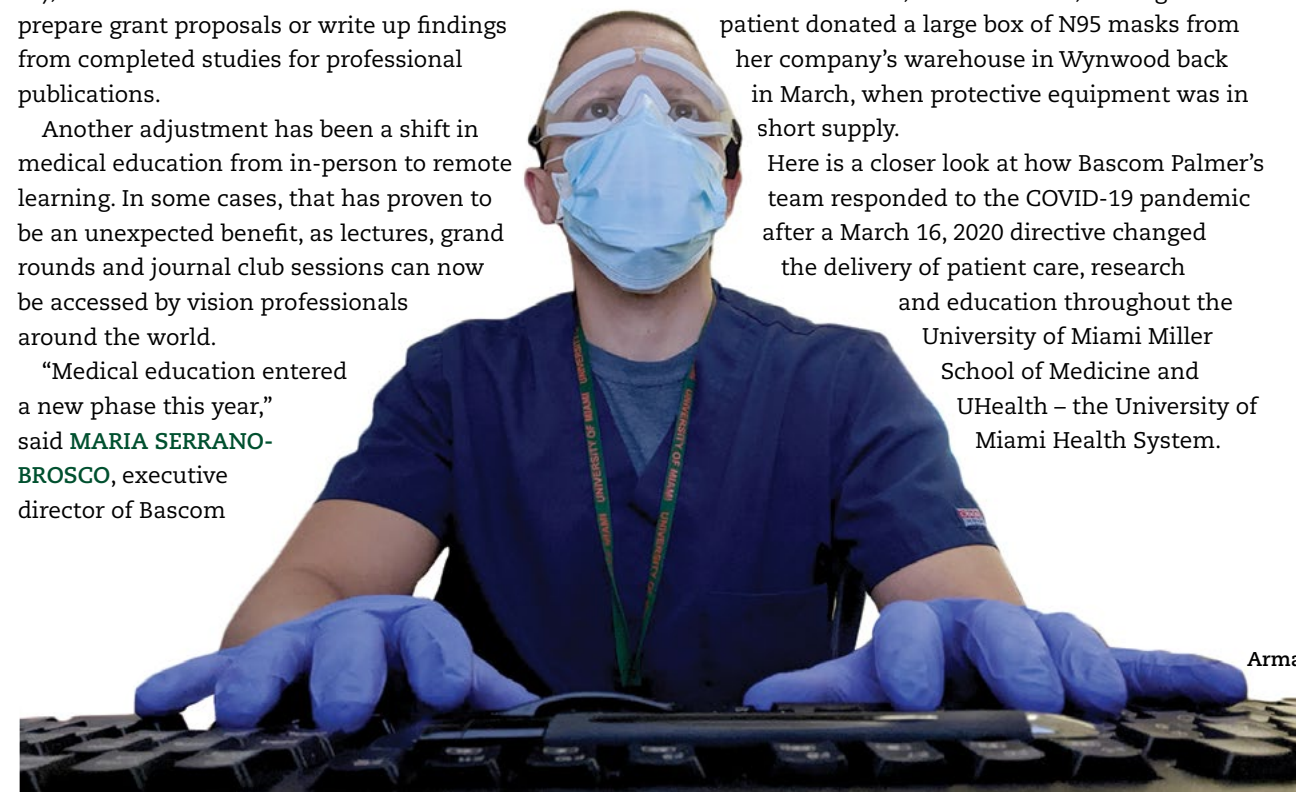
“Medical education entered a new phase this year,” said **MARIA SERRANO-BROSCO**, executive director of Bascom

Palmer’s Global Center for Ophthalmic Education. “As the demand for digital content increases, there are many time- and cost-saving advantages to online education. **CHRIS R. ALABIAD, M.D.**, associate professor of clinical ophthalmology, led the grand rounds during this time, and more than 400 attendees from around the world regularly logged in each week to participate,” she added.

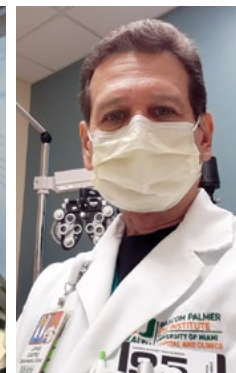
The pandemic also put Bascom Palmer’s community outreach programs on hold, according to **ZUBAIR ANSARI, M.D.**, assistant professor of clinical ophthalmology, associate director for international physician education, and medical outreach director. “In the coming months, our outreach initiatives will become very important, because so many South Florida residents have delayed their vision care,” Ansari said. “Serving resource-poor communities is a crucial aspect of our mission.”

Bascom Palmer’s global network of vision professionals has stayed closely connected throughout the pandemic. Two retinal fellows from 15 years ago, who are now professors in Shanghai, sent a donation of 4,000 N95 masks, and a grateful patient donated a large box of N95 masks from her company’s warehouse in Wynwood back in March, when protective equipment was in short supply.

Here is a closer look at how Bascom Palmer’s team responded to the COVID-19 pandemic after a March 16, 2020 directive changed the delivery of patient care, research and education throughout the University of Miami Miller School of Medicine and UHealth – the University of Miami Health System.



Armando Monroig



Providing Emergency Care

When COVID-19 became top-of-mind concern in March, many South Florida eye care centers closed their doors, and Bascom Palmer's emergency department in Miami became one of the only places where patients could safely receive expert medical eye care.

"Keeping the emergency department open to serve the community was a huge challenge at first, because there were so many unknowns about COVID-19," said **KARA M. CAVUOTO, M.D.**, associate professor of clinical ophthalmology and director of emergency services. "We had to bring all the moving parts of the care team into alignment, including the faculty, fellows, residents, nurses, patient guides, and support staff. We had to ensure that our patients were safe, as well as ourselves."

While the changeover was an "abrupt turn," **STEVEN I. GAYER, M.D.**, professor of clinical anesthesiology and medical director of surgical services, said, "We continued to run our operating rooms as safely and efficiently as possible. Emergency care is something that needs to happen in less than

24 hours. Some problems are obvious, such as a traumatic injury to the eye or a retinal detachment."

Gayer said his first emergency patient had a retinal detachment and came to Bascom Palmer as other centers were shut down. "In mid-March, we had only the rudiments of protective gear and no quick means of testing for COVID-19," he said. "We took the patient's medical history and knew we were taking a risk to help him. His vision depended on us."

Since then, emergency procedures have evolved, as more personal protective equipment, commonly referred to as "PPE," became available for everyone involved in the operating rooms. "While the physician is the 'quarterback' in the operating room, it takes an entire team to succeed," Gayer said. "That includes surgery assistants, scrub technicians and nurses who are all on the front lines of care."

While eye injuries due to construction, automobile accidents, sports, or other mishaps declined this spring due to stay-at-home guidelines, the emergency department continued to see 50-plus patients a day in March and April, with a steadily increasing volume since then.

"I remember one patient who was using an exercise resistance band at home when it snapped, hitting him in the eye," Cavuoto said. "We also treated patients for corneal ulcers, conjunctivitis and serious eye infections and irritations."

Determining which patient conditions required emergency or urgent care was another early challenge. "We had to prioritize our patients who needed surgery," said **SONIA H. YOO, M.D.**, professor of ophthalmology, and the Greentree Pruett Hickman Chair in Ophthalmology. Working remotely, she provided guidance to the emergency team in the hospital. "Fortunately, we were able to launch our videoconferencing applications quickly, making it easier for those doctors working from home to stay in close touch with the teams at the hospital."



Dr. Giuliana Orihuela

Protecting Against COVID-19

To identify and provide care for COVID-19 positive patients, Cavuoto and **KIMAR M. ESTES, M.S.N.**, the nurse manager of the emergency department, guided the implementation of a negative air pressure room in the lobby area of the Miami facility. Commonly used in medical settings, a negative pressure system prevents airborne diseases from escaping and infecting other people by pulling outside air into the room and filtering it before it moves out of the room. "This allowed us first to identify, and then to provide emergency care for COVID-19 patients, while maintaining a sterile environment throughout the facility," said Estes.

Another innovative approach to protecting patients and staff came from the 1990s Nickelodeon show, "Legends of the Hidden Temple." Residents were divided into three separate teams who did not interact either at work or socially, Cavuoto said. The three teams – wearing custom T-shirts to represent their unity – were the Green Monkeys, the Orange Iguanas, and the Purple Parrots. "We wanted to lighten the mood for our patients and help our team to maintain their smiles behind their masks," said Estes.

In the emergency department, chief residents **NICOLAS A. YANNUZZI, M.D.**, and **NIMESH A. PATEL, M.D.**, coordinated medical care, while working different schedules. "Our residents deserve full credit for seeing patients, even before we had the PPE and COVID-19 screening criteria," said Yannuzzi. "Going into medicine, you know you are here to serve the patients and their families. For us, the delivery of emergency services was a natural transition of care."

Like Yannuzzi, Patel saw many patients with eye injuries, including a man who had been drilling on a construction project in February. A CT scan found a tiny foreign body in his eye and the surgeon was able to remove it successfully.

"One of our biggest challenges as chief residents is keeping up with the changing guidelines from the CDC," said Patel. "Because those guidelines affect

scheduling, our 21 residents were calling patients to assess the severity of their condition and determine how soon they may need treatment. We were also doing telehealth visits, checking in with patients who are at higher risk or who have difficulty traveling. Our patients appreciated our ability to see them 'virtually' while they stayed at home."

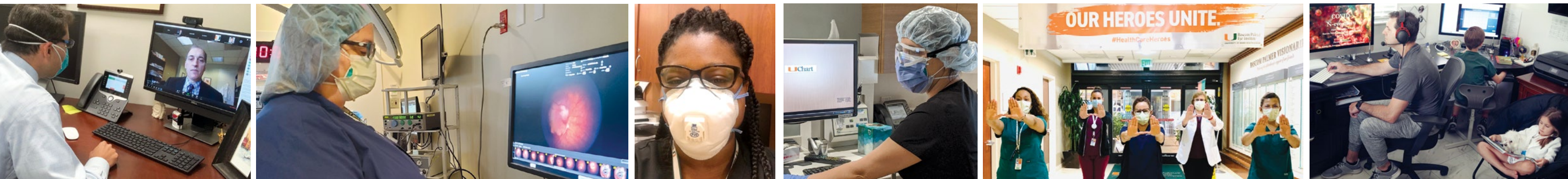
Vitreoretinal surgeon, **LUIS J. HADDOCK, M.D.**, assistant professor of ophthalmology, also saw patients who needed immediate care for problems like retinal detachments. "I treated one patient who woke up, saw a gray shadow in her right eye that grew larger during the day," he said. We examined her, quickly rushed her into the surgical center, and were able to save her vision."

On May 4, UHealth announced that it had reactivated key clinical services, allowing the gradual increase of regular health care. "Our focus was to move forward safely, not only for our patients, but also for our staff members," said Estes. "We continually asked, What is our new normal? How many patients can we safely treat every day? How can we continue to practice social distancing as we increase the number of patients?"

Despite the challenges from the pandemic, the camaraderie throughout Bascom Palmer has been a source of inspiration for many. "I am so happy to come to work every day and continue to take care of our patients," Cavuoto said. "It has been a source of energy and excitement knowing that I am still able to do what I love."



Kimar Estes with Dr. Kara Cavuoto



Affiliated Hospital Care

Along with staffing Bascom Palmer’s emergency department, Bascom Palmer’s physicians assisted with eye emergencies at UHealth Tower, Jackson Memorial Hospital, and the Miami Veterans Administration (VA) Hospital.

NINEL GREGORI, M.D., professor of clinical ophthalmology, and chief of the Eye Care Section, Miami/Broward/Homestead VA Medical Centers, treated a steady stream of VA patients for retinal detachments and other problems. “When patients recognized a visual disability, we examined them, and if necessary, performed urgent surgery at the VA.”

In April, Gregori treated a patient in his 60s with a detachment in both eyes that without treatment would have led to blindness. “We were able to treat both eyes on the same day, using a laser on the second, less affected eye,” she said. “I was wearing my N95 mask as well as a surgical mask with the laser headset. For me, the biggest challenge was not the surgery, but because COVID-19 testing was limited at the time, it was not being able to touch our patients without fear.”

Launching Telehealth

Making a rapid shift to telehealth services has allowed Bascom Palmer’s physicians to continue delivering clinical care to patients who do not need emergency or urgent surgery. “We didn’t want to put patients, physicians or staff members at undue risk,” said **RANYA G. HABASH, M.D.**, medical director of technology innovation, and assistant professor of clinical ophthalmology. “Within two weeks of the stay-at-home order in place, we had Bascom Palmer’s virtual visit program up and running.”

While it was challenging to make a rapid adjustment, the Institute’s professionals have been at the forefront of remote technology for many years, developing equipment and applications for evaluating, diagnosing and treating many types of vision conditions, along with artificial intelligence (AI), and virtual and augmented reality tools.

“Telehealth has tremendous potential for delivering eye care – not only to our patients, but also to those needing eye care around the world,” said Habash.

Once the decision was made to implement telehealth services – supported by a reimbursement authorization from the U.S. Centers for Medicare & Medicaid Services (CMS) – Habash began developing new workflows for patient care, from scheduling, patient access and the patient experience, to staff training and coding for reimbursement. “The landscape has shifted for patients, as well as physicians,” she noted. “Everyone at the Institute was receptive to doing video evaluations and consultations. We have continued to refine our workflows based on the changing COVID-19 situation.”

JAYANTH SRIDHAR, M.D., associate professor of clinical ophthalmology, worked closely with Habash in developing Bascom Palmer’s telehealth services. “We developed guidelines for different scenarios, including patients with and without COVID-19 symptoms, so we could deliver the appropriate care while protecting patients and staff members.”

For **THOMAS E. JOHNSON, M.D.**, professor of clinical ophthalmology, telehealth offers an efficient way to see oculoplastic patients, including a recent consultation with an individual in Australia. “Using the video camera, I can look at suspicious eyelid lesions, droopy eyelids and other conditions,” he said. “It’s not as good as seeing the patient in person, but it allows me to set up an action plan if surgery is needed. Telehealth is also helpful for post-operative follow-up visits, which can be done at home rather than in our clinic.”

However, some types of vision conditions like glaucoma or retinal conditions aren’t suited to telehealth evaluations. Assessing patients for neuro-ophthalmic disorders is particularly challenging because they typically have general visual disturbance symptoms.

“It can be hard to get a sense of the seriousness without an in-person evaluation,” said **BYRON L. LAM, M.D.**, professor of ophthalmology and the Robert Z. & Nancy J. Greene Chair in Ophthalmology. “We can

use telehealth to look at how the eye is moving, but we can’t do prism measurements or assess the optic nerve.”

Those concerns led to a two-part visit, known as a “hybrid visit,” where the first part of the visit is testing that takes place in the office with ophthalmic technicians. The second part of the visit takes place with the patient safely at home on the telephone or video chat with the doctor. These visits have reduced the length of time that patients are spending at Bascom Palmer’s eye care centers.

That is a crucial concern for patients worried about the risk of COVID-19 infection. In April, Sridhar arranged a hybrid appointment for a patient in his 70s with macular degeneration. “He said he hadn’t been outside his house for 41 days,” Sridhar said. “Many others have told me their only recent travel has been to Bascom Palmer for imperative treatment.”

Glaucoma Care

Hybrid appointments are also helpful in treating patients with glaucoma, the “silent thief of sight.” To find diagnostic signs, such as an increase in intraocular pressure (IOP) or decrease in the field of vision, requires an office visit, said **RICHARD K. PARRISH, II, M.D.**, glaucoma specialist and holder of the Edward W. D. Norton Chair in Ophthalmology. “With our new scheduling procedures, a patient can come in at 8:00 a.m., for instance, get the examination at 8:15 and leave at 8:45,” said Parrish. “Then the ophthalmologist will contact the patient at home with the results.”

For glaucoma patients, regularly measuring IOP is very important as increased pressure damages the optic nerve and can cause loss of vision. Before patients were able to come into Bascom Palmer for testing, the Institute offered “drive-up” IOP testing at the Miami and Plantation locations. Patients made an appointment, drove to the front entrance and remained in their cars when having pressure checked.

Treating AMD

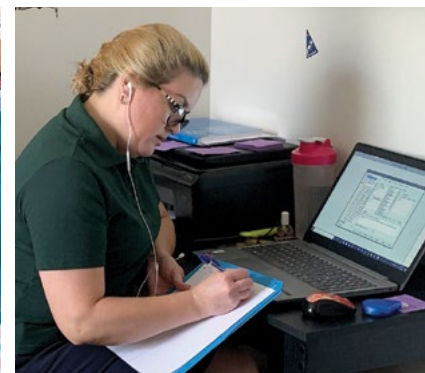
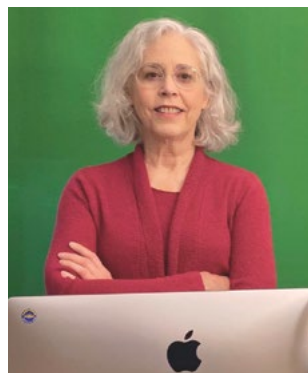
As a specialist in retinal diseases like age-related macular degeneration (AMD), **PHILIP J. ROSENFELD, M.D., PH.D.**, professor of ophthalmology, delivers regular medication injections to patients in danger of losing their vision.

“It’s hard to provide telemedicine care for retinal diseases, because we can’t look into the back of the eye with specialized imaging equipment like optical coherence tomography (OCT). I am a big proponent of getting these monitoring systems in the homes of patients. That would allow us to see what is happening with the retina in real time.”

Rosenfeld is working with optical instrument companies to develop a wearable device that a patient could put over the eyes to obtain an OCT image that could be interpreted by means of an artificial intelligence algorithm or by uploading the image to the cloud, where a physician could log in and see the images. “This technology is not available



Dr. Swarup Swaminathan



yet, but COVID-19 has accelerated the development effort. I think we'll be able to do this within the next year."

Meanwhile, Bascom Palmer's retinal specialists have modified their patient care processes. First, a patient with the aggressive "wet" form of AMD comes into the Institute for an OCT examination with a technician. New patients also get a visual acuity test, but that examination is waived for most returning patients. "This process allows the patient to spend less time in the clinic, while dealing with the most essential questions: does the patient need an injection for wet AMD, and how soon does the patient need to come back for further monitoring?" said Rosenfeld. "Some are in a predictable pattern and need injections every six to eight weeks, while others have variable injection schedules.

Rosenfeld has continued to see AMD patients in Miami and Palm Beach Gardens as regular injections are necessary to preserve their vision. "I am hopeful that research into sustained release treatments will accelerate, as that would mean patients could come in less frequently for their treatments," he said.

Corneal Transplants

Another change in clinical processes involves testing eye tissues for COVID-19. As an experienced corneal surgeon, Amescua often transplants donor tissues to improve a patient's vision. But today there are questions about whether corneal tissues could possibly transmit the COVID-19 virus to recipients. "The coronavirus can be incubating in individuals without symptoms," he said. "Therefore, we follow CDC guidelines and test corneal tissues before proceeding with a transplant."

DARLENE MILLER, D.H.SC., M.P.H., research professor of ophthalmology, notes that the current tests for COVID-19 use nasal and sputum swabs to check for respiratory infections. "While the risk of transmission from ocular samples is small, the virus has been documented in tears and conjunctiva swabs," she said.

In the laboratory, Miller and her team are also taking clinical samples from patients and performing polymerase chain reaction (PCR) tests to detect COVID-19. "We are documenting our findings, while following the latest research from around the world," she said.

Making Other Adjustments

For families throughout Florida, Bascom Palmer provided invaluable vision care to patients of all ages at the height of the pandemic. Take the case of an 11-year-old girl from North Florida with retinoblastoma, a rapidly progressive cancer that often involves both eyes.

"Her father had the same disease, and her mother passed away, so the girl's grandmother drove all night to arrive here at 6:00 a.m. for testing and treatment," said **J. WILLIAM HARBOUR, M.D.**, professor of ophthalmology, the Mark J. Daily Chair in Ophthalmology, and director of ocular oncology.

"We were able to start her on chemotherapy medication," Harbour added. "Despite having multiple tumors in both eyes, she has normal vision. If she continues to respond to treatment, she should wind up with excellent vision."

Harbour also treats adults with melanoma who often travel long distances for urgent care. "Normally, we treat them with brachytherapy, a form of radiotherapy that involves inserting a device in the eye for three days while the patients stay in the hospital," he said. "Rather than bring them in individually, we schedule a group of patients for the same day and find them nearby accommodations. They also need someone to drive them, so the logistics of these patient visits can become quite involved."

Children with vision problems created other challenges during the pandemic. "Because children are still developing vision, we need to see them more frequently," said **HILDA CAPO, M.D.**, professor of clinical ophthalmology and the John T. Flynn Chair in

Ophthalmology. "If they have amblyopia ("lazy eye"), for instance, we want to be sure their glasses have the right corrective lenses. It's hard to assess visual acuity in a child in a home telehealth visit."

Prior to COVID-19, children and adults with amblyopia or strabismus were seated together in a large waiting room to evaluate their need for prisms, patches or corrective surgery. Now, the young patients are brought to a special area with their parents when no other patients are around.

"If children need surgery, we call the parents the night before with assurances of care," said **LINA UTRERA, M.S.N., R.N., P.A.N.**, executive director of nursing. "It's always hard to have a child in the hospital, but it's even more difficult now. When the parents go home with their son or daughter, they tell us that we alleviated their concerns and their experience was much easier than they anticipated."

Health and Safety

At Bascom Palmer, health and safety is the highest priority. All patients are screened for COVID symptoms and given masks when they arrive at any location. Reflecting those concerns, waiting areas throughout the Institute have been reconfigured so patients are socially distant from each other. "We now have fewer people in these areas at the same time," said Capo. "For patients whose pupils need to be dilated, we do the eye drops right away, rather than after the initial exam. That shortens the time a patient is in the clinic."

Sridhar notes that the traditional dress code for physicians, such as a suit and tie, had to be discarded with the arrival of the coronavirus. "Now, we are all wearing scrubs at

work," he said. "It's much easier to put them on and take them off, and they can easily be disinfected in the wash. It doesn't match the patient's traditional idea of a doctor, but this may be the new standard."

Nursing care has also been deeply affected by the pandemic. "With nursing there is a lot of touching and comforting, and with the virus we have to keep our distance," said Utrera. "That's a big change."

"One of the lasting lessons from the pandemic is the importance of basic hygiene," said Utrera. "Washing your hands is the foundation for preventing viral or bacterial transmission," she said. "Perhaps even more importantly, COVID-19 has taught us to enjoy each day and appreciate our families, friends and colleagues."

Serving Our Patients

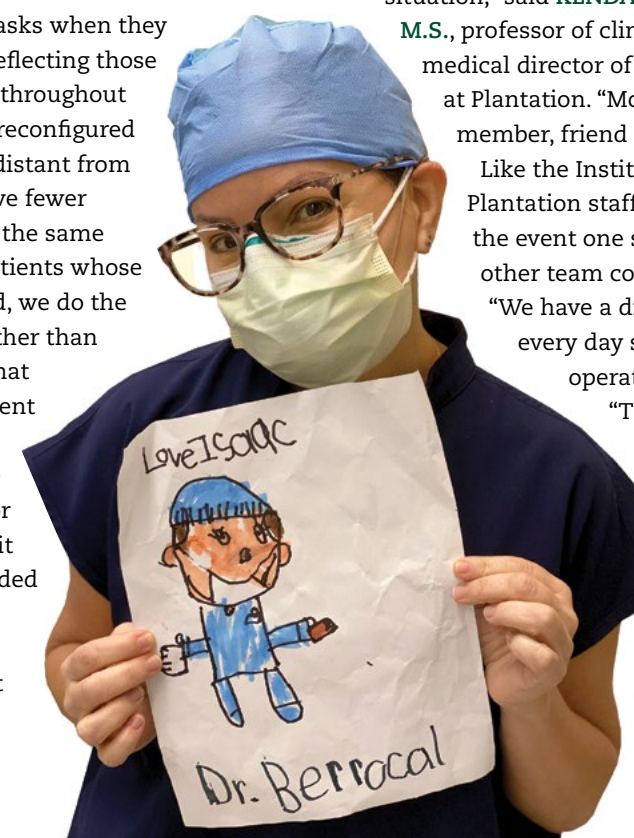
In each Bascom Palmer location, clinical teams made major adjustments, concerning hours, services and schedules to serve their communities.

"We have all been trying to make the best of the situation," said **KENDALL E. DONALDSON, M.D., M.S.**, professor of clinical ophthalmology, and medical director of Bascom Palmer Eye Institute at Plantation. "Most everyone knows a family member, friend or neighbor with COVID-19."

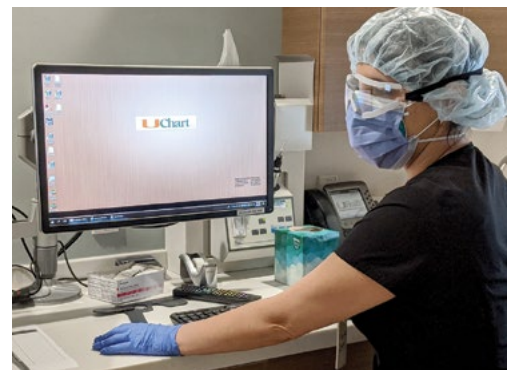
Like the Institute's other locations, the Plantation staff was divided into teams, so in the event one staff person tested positive, the other team could continue seeing patients.

"We have a different doctor in the office every day seeing urgent cases and post-operative checkups," said Donaldson.

"The patients are also screened on the phone. When they arrive at our facility, they are screened and given a mask before they walk through the door. We all have our masks and eye protection."



Dr. Nina Berrocal



Along with her colleagues, Donaldson has quickly become used to telehealth care. “I was treating a woman for conjunctivitis, and her kids helped set up the videoconference session,” she said. “Her husband and son also had symptoms, so I was able to prescribe medications for the whole family in that session. When we met in person a week later, she told me how much she enjoyed the experience.”

Looking ahead, Donaldson feels certain that telehealth will be a long-lasting positive change for vision professionals. “It won’t replace in-person visits, but it does have great potential for the future,” she said. “For instance, a technician could attach a video camera to a diagnostic microscope so the doctor could conduct the examination remotely allowing us to minimize risk to our patients.”

Bascom Palmer at Palm Beach Gardens has provided vision surgery and treatment for conditions that require urgent care, according to **JORGE FORTUN, M.D.**, assistant professor of ophthalmology and medical director. “We have made some significant changes to the way we deliver care, including hybrid visits for diagnostic imaging with follow-up physician consultations by video chat,” he said.

Drs. Diana Laura, Alexandra Levitt, and Ranya Habash



On the technology side, Fortun says an advanced “heads up” visualization system deployed at Palm Beach Gardens last year can reduce exposure risk for physicians doing vitreoretinal surgery. “We traditionally do ophthalmologic surgery through a microscope looking down at the patient,” he said. “This 3D technology magnifies the stereoscopic image, so we look up at a big screen instead.”

Another improvement in patient care is the opening of the Lois Pope Center for Retinal & Macular Degeneration Research. “We have been observing social distancing guidelines that limit how many patients can be in a confined space,” Fortun said. “With the opening of the Lois Pope Center, we are able to open additional space throughout the Maltz Center, while continuing with our clinical trials.”

Bascom Palmer at Naples remained open five days a week to serve patients who needed urgent care. “One of our priorities was retina patients who needed regular injections, including several in their 90s or 100s,” said **STEPHEN G. SCHWARTZ, M.D., M.B.A.**, professor of clinical ophthalmology and medical director. “We also took care of other acute conditions, like retinal detachments, to address a potential loss of vision.”

As in the other locations, the Naples physicians and staff members were divided into two teams, and patient volumes were limited to reduce risks of exposure. “Along with masks and gloves for all patient encounters, I have been wiping down the equipment in front of the patient before starting an exam,” Schwartz said. “I plan to keep doing that, as our patients appreciate the visible precautions.”

Along with treating her regular retinal patients, **JACLYN L. KOVACH, M.D.**, associate professor of clinical ophthalmology, has continued to see participants in a clinical trial for advanced dry macular degeneration. “Fortunately, these patients can continue to get this investigational treatment, and we hope that the results will lead to approval by the U.S. Food and Drug Administration (FDA).”

Like other Bascom Palmer physicians, Kovach has received thanks from many grateful patients. “They are very appreciative that we have been here to help preserve their vision in this health crisis,” she said.

Behind the Front Lines

Much of the credit for Bascom Palmer’s ability to adjust quickly to changing health and safety requirements goes to the Institute’s support teams who work behind the front lines of care. That included major changes to scheduling patient visits led by **MICHAEL GITTELMAN**, chief executive officer, and **JOANNE MARTIN**, chief operations officer.

“Normally, we build scheduling templates for patients and providers through our electronic medical records (EMR) system,” said **RYAN WHIDBY, M.B.A.**, executive director of clinical logistics and operations, who manages a lean, four-person team. “That involves a lot of coordination each day, depending on which physicians are available.”

Hundreds of patient appointments were cancelled when the stay-at-home order was issued. Working with staffers from other support teams, Whidby drew up a master spreadsheet of providers, and created a color-coding system for patients who needed urgent care, telehealth services, or in-person visits in the future. “Our goal is to keep everyone safe, continue improving our patient services, and ensure that all patients will be given new appointments to see their doctors,” he said.

Bascom Palmer also has more than 150 staff members dedicated to managing the patient experience, from check-in to discharge and follow-up care. “Our team has multiple interactions with patients,” said **MARIO ALMEIDA**, executive director of patient access.

The switch to virtual visits has greatly impacted patient scheduling and workflows, such as helping patients prepare for video chats with a physician. Other steps include streamlining the check-in process and explaining infection prevention procedures.

“Last December we had a video session with our entire team,” said Almeida. “I told them that 2020 was going to be a special year for us. Little did I know in what way it would be different. I am pleased we have managed those changes and we are continuing to move in the right direction.”

BELINDA QUINTA, director of sponsored research programs at Bascom Palmer’s Evelyn F. and William L. McKnight Research Center, leads a team that assists faculty with grant applications, prepares budgets, and makes sure that research projects comply with funding requirements.

As much of the laboratory research came to a stop, faculty members began preparing applications for new grants. “We submit more than 100 applications a year and that has increased because of COVID-19 proposal requests,” said Quinta. “However, teleworking has allowed us to be more productive because we’re not commuting in traffic every day.”

Research Programs

Bascom Palmer’s vision research programs have also been dramatically affected by the pandemic. Most clinical trials and laboratory studies had to be put on hold for safety reasons.

After CDC guidelines were posted in March, one of the first steps was determining which laboratory experiments needed to continue, said **VITTORIO PORCIATTI, D.SC.**, professor of ophthalmology, the James L. Knight Professorship in Ophthalmology and Bascom Palmer’s director and vice chair of research. For those studies, a limited number of research staffers returned to the laboratories each day, for example, to care for experimental models critical for ongoing long-term research.

“It’s been a major adjustment for all of us,” said Porciatti. “Fortunately, many of our scientists and clinicians have been able to use this time for writing scientific papers on completed studies or preparing applications for new grants.”

Like other Bascom Palmer scientists, Porciatti is also staying in close touch with post-doctoral trainees and staffers through video meetings. “We are



reaching out to other institutions, organizing research meetings with colleagues across the country and internationally. We can share screens with each other and work collaboratively on the same document – a real advantage for many studies.”

Bascom Palmer’s innovative clinical trials for gene therapy for inherited retinal disorders were put on pause this spring. “Our patients understand the need for safety and are disappointed they cannot participate at this time,” said LAM. “We are monitoring their conditions with telehealth calls and hope they can return soon to our clinics.”

Patient safety protocols have also halted many other clinical trials. “Some may be able to resume, while others might have to be restarted,” said Yoo. Researchers might also have to analyze the data from pre- and post-COVID participants differently. She added that the FDA is looking at that issue and may provide guidelines in the future.

The Institute’s researchers are also updating internal protocols, such as conducting the consent process online or over the phone, rather than in person. Other studies might take advantage of the Institute’s virtual visits. “These changes will make our clinical research more efficient,” said **ALFONSO SABATER, M.D., PH.D.**, assistant professor of clinical ophthalmology. “The enrollment process will be able to flow much faster.”

Meanwhile, researchers are making good use of the slowdown in other ways. For instance, **SANJOY K. BHATTACHARYA, PH.D.**, professor of ophthalmology, has built a team of 12 high school, undergraduate, medical and graduate students who are poring through literature from 1757 to 2020 on neuronal regeneration.

“The idea is to turn old scanned literature into readable materials to build actionable knowledge through natural language processing, an area of artificial intelligence,” he said, adding that the study includes UM experts in related fields. “This two- to three-year study is designed to build a big database on the optic nerve and regeneration.”

A second project involves metabolomics as a predictor of severity of exfoliation glaucoma. Bhattacharya is working with **RICHARD LEE, M.D., PH.D.**, associate professor of ophthalmology and the Walter G. Ross Distinguished Chair in Ophthalmic Research, **ANNA JUNK, M.D.**, professor of clinical ophthalmology, and other machine learning experts to identify patients who may need to be followed aggressively.

Moving to Online Education

For Bascom Palmer’s medical education programs, moving to an online platform has created new opportunities to connect with vision professionals here in South Florida and around the world. “We converted all of our lectures, grand rounds and journal clubs to an online video platform,” said Gedde. “Then, we opened that technology up to other residents, fellows, and ophthalmologists worldwide.”

For the Global Center for Ophthalmic Education, the conversion process was a “huge undertaking” that has received extremely positive feedback from participants, according to Serrano-Brosco.

Currently, Bascom Palmer is offering 12 to 15 programs a week, such as a recent lecture on dry eye syndrome by **ANAT GALOR, M.D.**, associate professor of ophthalmology. Attendance continues to grow with professionals now logging in from more than 125 countries. “Eye doctors are home trying to continue their education, and we are able to provide it virtually,” Serrano-Brosco said. “We recently launched www.BascomPalmerLearn.org, a new online learning portal for doctors that will provide an ever-increasing collection of our educational programs that can be viewed from anywhere at any time. (See story on page 25.)

Online education also supports the Institute’s residents. “Along with lectures provided by our current residents, we are hosting sessions with former residents and fellows about applying for fellowships and positions,” said Patel. “These sessions help strengthen ties with our alumni from all over the world.”

Utrera added that many of the Institute’s nurses are also signing up for sessions to further their education on topics such as glaucoma and retinal disease. “It’s a great opportunity for nurses, who may not be currently working as many hours, to gain credits and prepare for new certifications,” she said.

The move to online learning has also increased awareness of Bascom Palmer’s leadership in technology. In a modern version of the “train the trainer” model, Habash has been advising other institutions about launching online educational programs. “Eye hospitals and professionals throughout the field of ophthalmology are coming together to share best practices and to learn from each other,” she said. “It’s very inspirational.”

Across the nation, the Institute’s ophthalmologists are arranging other types of collaborative educational programs. For example, Johnson set up an online session with a faculty member at University of California San Diego. Johnson presented a paper on anatomic socket reconstruction, and one fellow from each institution presented cases, which was followed by a general discussion. The online format received a positive reception and faculty from Stanford University, and residents from New York began attending as well. Now, the sessions are held weekly, giving participants an opportunity to compare practices in different parts of the country.

For Sridhar, the move to online platforms has included delivering podcasts, webinars, and other educational programs to a regional, national, and international audience of vision specialists. “Students, residents, and fellows are hungry for medical information,” he said. “Because they are constantly on the go, podcasts and video-on-demand programs meet an important need. We also have a library of lectures for eyecare professionals who want to improve their knowledge and skills.”

What Lies Ahead?

Looking to the future, it seems certain that many of the COVID-19 adjustments will have long-term implications for clinical care, vision research, and education. “Times of crisis create opportunities for innovation,” said Gedde. “We have all become more comfortable with virtual consultations, meetings, and lectures, and there are many advantages to hybrid visits that minimize a patient’s time in the clinic.”

“Meanwhile, physicians, nurses, and patients need to remain vigilant about personal safety,” said Schwartz. “The pandemic will not end abruptly, and we must continue to be careful to treat our environment as if the virus were present.”

While everyone hopes for an effective treatment or vaccination for COVID-19, Gregori cautions that there could be other viral outbreaks in the future. “I have learned that we need to be prepared as physicians, individuals, and communities,” she said. “That means keeping masks, sanitizers, and other emergency supplies at home, because no one knows when an infectious disease will come again.”

But the courage, creativity, and flexibility demonstrated by the entire Bascom Palmer team this spring shows the Institute is prepared to meet the challenges of the future. As Gedde said, “I am proud to be one of the many Bascom Palmer physicians fulfilling our oath to serve patients, even when it involves personal risk. Medicine is truly a noble profession, and our Institute will continue to stand on the front line of vision care.” ■

“I am proud to be one of the many Bascom Palmer physicians fulfilling our oath to serve patients, even when it involves personal risk. Medicine is truly a noble profession, and our Institute will continue to stand on the front line of vision care.”

— Dr. Steven Gedde

Virtual Visits bring our doctors directly to you

Great news! Bascom Palmer is now offering virtual visits to provide your eye care remotely. A virtual visit with your eye doctor can determine whether your condition can be treated safely at home or you need an in-office visit at one of our locations.

What is a virtual visit?

A virtual visit is a scheduled appointment with your eye doctor by the use of your smartphone or computer from the convenience and comfort of your home.

What services are available in a virtual visit?

Many services you normally receive during an in-office visit can now be done with a virtual visit through a video chat or telephone call.

These services include:

- Urgent or emergency visit
- New patient visit
- Follow-up visit
- Post-operative visit
- Second opinion consultation

Can I see my regular eye doctor on a virtual visit?

Yes. When you make your appointment for a virtual visit, you will be scheduled to see your regular eye doctor, just as you would for an in-office visit. If you are a new patient, our appointment office will make your appointment with a doctor who specializes in your particular eye condition. In addition, your regular eye doctor can obtain a second opinion or a consult with another eye doctor using this virtual platform.

What equipment do I need?

For a virtual visit by telephone, all you need is your phone. For a virtual visit by video, you will need a smartphone, tablet, laptop, or desktop computer with a camera and microphone, and internet capability. These video chats are done through a secure and special version of Zoom. Prior to your video chat, you will have to download Zoom on your device. It is also recommended that you have a MyUHealthChart account. At this secured, online site, you are able to access your medical records electronically. Don't worry, before your virtual visit occurs, we will ensure you have everything you need for an easy, convenient experience. We will walk you through every step of the process.

“This is super advanced, creative telemedicine that allows our Bascom Palmer specialists to be available to anyone in the world, from any place in the world. Telemedicine is critical to help us care for patients in the most difficult of times. But it's also our opportunity to embrace a more evolved model of healthcare delivery; a better, smarter way to practice medicine moving forward.”

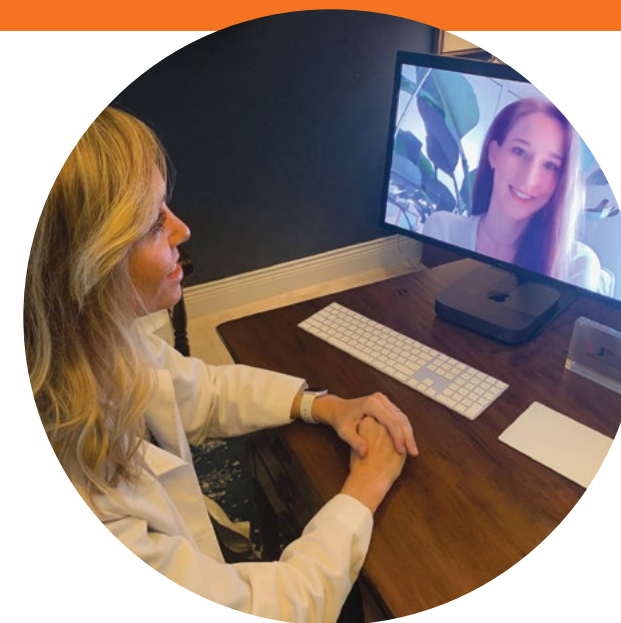
– Dr. Ranya Habash

Can I ask a family member or friend to join me on my virtual visit?

Absolutely! You are welcome to have a family member or friend join you on your virtual visit. Since video chats take place on a special version of Zoom, you, the doctor, or the doctor's assistant can “invite” your family member or friend to join the visit virtually.

What is a hybrid visit?

A hybrid visit is a two-part visit scheduled by your doctor, the first part of the visit is testing that takes place in the office with our clinical staff. The second part of the visit takes place on the phone or by video chat with your doctor. Once your test results are available, your doctor will discuss your findings and care plan with you from the comfort of your own home. Even better, we are making eye tests more convenient for you. Hybrid visits are available at all of Bascom Palmer's locations with the possibility of doing these at more convenient times, like evenings or weekends. If your doctor recommends a hybrid visit, you can request your testing at the location closest to you. Furthermore, hybrid visits provide optimal care to the patients as very precise electronic documentation of the status of the eye and the visual system is documented in a way that the physician and team can review it multiple times and come up with observations that may have been missed during a routine in-person visit that depends more on the “in the moment” interpretation of an observation.



Will I be safe during an in-person visit?

If you come into any Bascom Palmer location, you will see we have implemented many new guidelines to keep you and our employees safe. Everyone entering our facilities is screened for COVID-19. The screening is easy and takes less than one minute. Then, everyone is given a mask. Because visitors or family members are not allowed at this time, and if you should need assistance, our team members will assist you. We are following social distancing and have increased space and limited the amount of seating in our waiting areas. Plenty of hand sanitizer is available and all surfaces, elevators, and restrooms are continually cleaned and disinfected. Your health and safety is our highest priority.

How is my privacy protected?

The University of Miami Health System uses a special version of Zoom known as Zoom for Healthcare, which is integrated within our “UChart” electronic medical record platform. UChart secures telemedicine Zoom sessions through advanced encryption and restricted link distribution to protect your privacy.

Does insurance cover Bascom Palmer's Virtual Visits?

Your virtual visit will be billed to your insurance company, the same way an in-person visit would be billed.

We look forward to seeing you soon. ■



To schedule an in-office or virtual visit, call 1-888-845-0002 or visit BascomPalmer.org



The Department of Defense recently honored **SANJOY BHATTACHARYA, PH.D.**, and his research team at Bascom Palmer, for their investigation into ways to prevent vision loss associated with multiple sclerosis (MS). Their research has led to greater understanding of deimination, a posttranslational modification that plays a key role in multiple sclerosis, an autoimmune disorder. In MS, the immune system attacks the myelin sheaths that insulate neurons. Myelin acts like the rubber coating around electrical wires, and when it's destroyed, neurons develop trouble transmitting

information. Over the years, Bhattacharya's team kept finding heightened levels of deiminase, the enzyme that confers deamination in the optic nerves of MS patients. Deimination is a posttranslational modification that can have either good or bad effects, depending on where the deiminated protein is located.

Bhattacharya believes restoring normal deimination could be the key to stopping MS-associated vision loss and possibly regenerating damaged tissue. His lab received an Investigator-Initiated Multiple Sclerosis Research Award, from US Department of Defense, Congressionally Directed Medical Research Programs to advance that work. This research could also be applied to other conditions, such as Alzheimer's disease and glaucoma. Understanding the mechanisms that drive deimination could lead to therapy that corrects this faulty process, restore vision in MS patients, and potentially treat these other neurodegenerative conditions.

Wear a Mask

Wearing face masks in public can reduce the prevalence of the novel coronavirus disease (COVID-19) by preventing the spread of respiratory droplets. An April 22 analysis of mortality rates in 169 countries indicates that wearing face masks may also save lives.



The study, "Country-Wide Coronavirus Mortality and Use of Masks by the Public," found that the per-capita mortality tended to increase by 43 percent weekly in countries where people were not wearing masks, compared with a 2.8 percent increase in countries where people were wearing masks. The analysis looked at COVID-19 testing, deaths and mask-wearing practices for the three weeks beginning March 30. The average time from infection to symptoms was 5.1 days, and from infection to death was 23 days.

"Our research supports the universal wearing of masks by the public to suppress the spread of the coronavirus," said co-author **CRAIG A. MCKEOWN, M.D.**, professor of clinical ophthalmology. "Mask-wearing should be adopted immediately, based on the precautionary principle."

The analysis was submitted to an academic journal as a letter with Christopher T. Leffler, M.D., M.P.H., associate professor of ophthalmology at Virginia Commonwealth University (VCU) as first author. Co-authors included McKeown and contributors from VCU, the University of Toronto, and the University of Warmia and Mazury in Poland.

"We posted our analysis on researchgate.net, prior to a peer review, because of the urgency of the COVID-19 threat to public health," said Leffler. He launched the collaborative research initiative in March, reaching out to former VCU professor **STEPHEN G. SCHWARTZ, M.D., M.B.A.**, professor of clinical ophthalmology, and medical director, Bascom Palmer Eye Institute at Naples, who connected him with McKeown.

"Public health authorities and governments have varied in their policies regarding the use of face masks by the public," said Leffler, who noted that the U.S. Centers for Disease Control and Prevention (CDC) on April 13 issued a recommendation for individuals to wear cloth face masks in public settings.

"Our international analysis indicates that wearing face masks in public can flatten the mortality curve," said McKeown. "All of us should wear masks in public, because almost anyone could be unknowingly spreading the virus." ■

COVID-19 Research

In the past few months, Bascom Palmer's scientific and clinical researchers have begun studying the impact of COVID-19 on optical tissues. "We have submitted nine proposals to various funding sources as of mid-June," said **BELINDA QUINTA**, director of sponsored research programs.

While COVID-19 has been found in ocular tissues and tears, the transmission process and impact on the eye remain unclear. For instance, the coronavirus could enter through the conjunctiva as a primary infection, or have incubated in the lungs before spreading to other organs and tissues, including the eye.

SANDER R. DUBOVY, M.D., professor of ophthalmology and pathology, and the Victor T. Curtin Chair in Ophthalmology, is studying COVID-19 in post-mortem eyes with a grant from the Association for Research in Vision and Ophthalmology (ARVO) and The Eye Bank Association of America.

"We have gone into the field, taking biosafety precautions, to collect eyes from individuals who died of COVID," said Dubovy, who is examining those

samples, along with post-mortem corneal tissues, with **DARLENE MILLER, D.H.SC.**, research professor of ophthalmology, and scientific director of the Ocular Microbiology Laboratory, and **RICHARD LEE, M.D., PH.D.**, associate professor of ophthalmology.

"We have been studying the samples through both histomorphology and molecular diagnostics to better understand the effects of COVID-19 on the eye," Dubovy said. "Currently, the Florida Lions Eye Bank at Bascom Palmer is testing all post-mortem donors to ensure that no tissues that are COVID-positive would be used for corneal transplantation."

ALFONSO SABATER, M.D., PH.D., assistant professor of clinical ophthalmology, is also studying those post-mortem tissue samples. "We want to see if viral particles are present in different structures," he said. "We are also quantifying some inflammatory markers."

Another Bascom Palmer researcher, **VALERY I. SHESTOPALOV, PH.D.**, professor of ophthalmology, has applied for a grant to study the eye's response to a COVID-19 infection that triggers a severe inflammatory reaction called a cytokine storm, which can damage the lungs and other organs.

A similar inflammatory reaction, on a much smaller level, can occur in the eye due to high intraocular pressure or ischemia (lack of blood). "Mechanical stress and lack of oxygen can trigger neuroinflammation," said Shestopalov, who was senior



Dr. Darlene Miller



Dr. Sander Dubovy

"We have gone into the field, taking biosafety precautions, to collect eyes from individuals who died of COVID."

— Dr. Sander Dubovy



Dr. Valery Shestopalov

author of a 2019 study, "Inflammasome Activation Induces Pyroptosis in the Retina Exposed to Ocular Hypertension Injury" in *Frontiers of Molecular Neuroscience*. ■

Bascom Palmer Ranked No.1 Again!



All eyes are on Bascom Palmer.

For the 17th consecutive year, Bascom Palmer has been ranked as the nation's **Best in Ophthalmology** by *U.S. News & World Report*. This year marks the 19th time that Bascom Palmer has received the No. 1 ranking since the rankings began 31 years ago.

Bascom Palmer has long been at the forefront of innovation in ophthalmology, advancing the research that leads to better clinical care and improved patient outcomes. Faculty and staff have made notable contributions in the fields of macular degeneration, retinal surgery, glaucoma, infections and inflammations, corneal surgery, LASIK, cataract surgery, neuro-ophthalmology, plastic surgery, pediatric eye disease, and cancers of the eye.

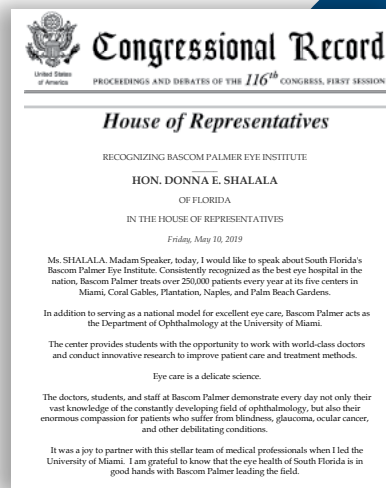
Bascom Palmer is also currently ranked as the **#1 Overall Ophthalmology Program**, the **Best in Clinical Care**, and the **Best Ophthalmic Residency Program** in the United States by *Ophthalmology Times*, a national publication focused on cutting-edge advancement in vision care. Bascom Palmer's residency program, under the leadership of **STEVEN J. GEDDE, M.D.**, consistently attracts the most talented young physicians entering the field of ophthalmology to its premier training ground. ■

Rank	Hospital	Reputation (%)
1	Bascom Palmer Eye Institute, University of Miami, Miami	49.1
2	Wills Eye Hospital, Thomas Jefferson University, Philadelphia	45.2
3	Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore	35.0
4	Mass. Eye and Ear Infirmary, Massachusetts Gen. Hosp., Boston	26.2
5	Stein and Doheny Eye Institutes, UCLA Medical Ctr., Los Angeles	20.9
6	University of Iowa Hospitals and Clinics, Iowa City	13.5
7	Duke University Hospital, Durham	13.1
8	Kellogg Eye Center, Michigan Medicine, Ann Arbor	9.1
9	UCSF Medical Center, San Francisco	7.4
10	Cole Eye Institute, Cleveland Clinic, Cleveland	7.3
11	New York Eye and Ear Infirmary of Mount Sinai, New York	6.3
12	USC Roski Eye Institute, Los Angeles	5.9
13	John A. Moran Eye Center, Salt Lake City	5.7

Ranked by *U.S. News & World Report* 2020-2021

“We are incredibly honored to be recognized as the nation’s leader in the fast-changing and dynamic field of ophthalmology. Our faculty and staff provide unsurpassed expertise in all eye conditions, and we hope always to provide a forum where the most important issues and challenges confronting ophthalmology are addressed. Our mission is to bring thought-leaders from around the world together, either in-person or virtually, to discuss and teach the safest, optimum care for their patients.”

– Dr. Eduardo Alfonso



Bascom Palmer was honored by the Honorable Donna E. Shalala as the best eye hospital in the nation. Congresswoman Shalala (D-FL) was scheduled to present a copy of the Congressional Record of the U.S. House of Representatives to Bascom Palmer on March 13, 2020. However, due to a revised congressional schedule, the event was postponed. We thank the congresswoman for the extraordinary recognition of the Institute.



Power List 2020

Congratulations to **PHILIP J. ROSENFELD, M.D., PH.D.**, for once again being named one of the 100 most influential figures in ophthalmology. A professor of ophthalmology and vitreoretinal specialist, Rosenfeld has been at the forefront of clinical research into therapies for age-related macular degeneration, including new drugs and novel imaging techniques. Rosenfeld was named to *The Ophthalmologist* Power List for the fifth consecutive time, which represents every year it has been announced since it was established in 2014.

Rosenfeld pioneered the off-label use of Avastin (bevacizumab) to treat wet age-related macular degeneration (AMD), a leading cause of vision loss among the elderly. His low cost discovery has saved vision in millions, saved billions of dollars in healthcare costs, and has become the standard of care for retina specialists throughout the world for its effectiveness and safety. Together with Rosenfeld's additional findings that the use of optical coherence tomography (OCT) reduced the need for injections of Avastin and the more expensive anti-vascular endothelial growth factor drugs to treat patients with AMD, the total cost savings to Medicare alone has exceeded \$50 billion since Avastin and OCT-guided therapy were introduced in 2005.

Rosenfeld's current research focuses on the treatment of dry AMD, which remains the major cause of blindness from AMD. In addition to

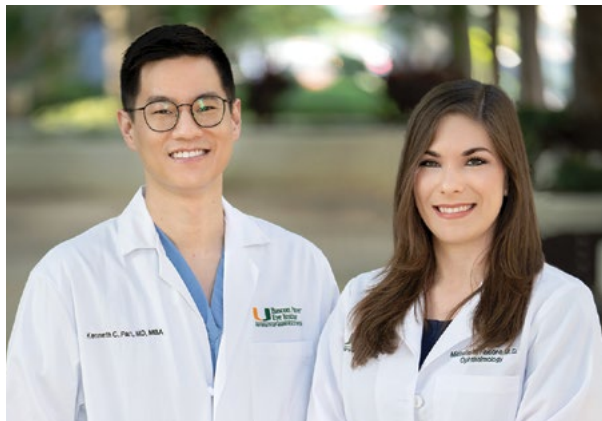
running clinical trials to test new promising treatments for dry AMD, Rosenfeld is using the next generation OCT technology to identify the underlying cause of AMD and the high-risk biomarkers that predict disease progression. These biomarkers will help Rosenfeld identify those patients at greatest risk for vision loss and give them the highest priority to get involved in clinical trials to slow or stop their disease.

When named to the 2020 Power List, the editorial board of *The Ophthalmologist* asked Rosenfeld, “What is a piece of advice for your younger self?” Rosenfeld responded, “Trust your ideas, trust your judgment, and seek out people who know what you don't know.”

Bascom Palmer's faculty members have been well-represented on the Power List since its inception in 2014. In addition to Rosenfeld, the 2019 list “The World's 50 Most influential People in Ophthalmology” featured **CAROL KARP, M.D.**, an expert in the management of ocular surface tumors and anterior segment surgery, and **J. WILLIAM HARBOUR, M.D.**, one of the most highly respected ocular oncologists in the world. **EDUARDO C. ALFONSO, M.D.**, Bascom Palmer's director and chair was named to the list in 2014, 2016 and 2018. Also named in 2018 were **HARRY W. FLYNN, JR., M.D.**, **RICHARD K. PARRISH, II, M.D.**, and **SONIA YOO, M.D.** In 2017, **RANYA HABASH, M.D.**, was included in the Power List that featured ophthalmology's “Top 50 Rising Stars.” ■

“Trust your ideas, trust your judgment, and seek out people who know what you don't know.”

— Dr. Philip Rosenfeld



Congratulations to **KENNETH C. FAN, M.D., M.B.A.**, and **MICHELLE M. FALCONE, M.D.**, for being awarded a Heed Fellowship for 2020-2021. A Heed fellowship, presented by the Heed Ophthalmic Foundation and the Society of Heed Fellows, is one of the most prestigious honors a post-graduate trainee in ophthalmology can receive. Fan is currently undertaking a fellowship in retina at Bascom Palmer and will become a chief resident in 2021. Having completed her residency at Bascom Palmer, Falcone has begun a fellowship in pediatric ophthalmology at Boston Children's Hospital of Harvard Medical School.

The National Institute of Neurological Disorders and Stroke has awarded **JIANHUA (JAY) WANG, M.D., PH.D., M.S.**, professor of ophthalmology, a 5-year \$1,477,881 research grant. Teamed with John Detre, M.D., at the University of Pennsylvania, the project will investigate how blood supply in the brain relates to the blood supply in the retina in humans. The project will evaluate novel noninvasive methods for imaging the small vessel structure and function in both the brain and eye to refine image markers of small vessel disease in the brain. Neuro-ophthalmologist, **HONG JIANG, M.D., PH.D.**, associate professor of clinical ophthalmology and neurology, and Pradip Pattany, Ph.D., (UM radiology), are co-investigators. Jiang recently received a \$250,000 grant from the Florida Department of Health Ed and Ethel Moore Alzheimer's Disease Research Program. She is exploring retinal biomarkers for use in monitoring vascular contributions to Alzheimer's disease. She and Wang will be using optical coherence tomography angiography to study the role that retinal microvascular and microstructural changes relate to MRI brain and cognitive function.



Dr. Richard Parrish receiving the American Glaucoma Society Honoree Award with Dr. Dale Heuer and Dr. Steven Gedde who presented the AGS lecture.

In February, the American Glaucoma Society (AGS) recognized **RICHARD K. PARRISH II, M.D.**, as its 2020 Honoree for his lifetime contributions to AGS and the field of ophthalmology. A man of unquestionable integrity, Parrish is a dedicated scientist and world-renowned glaucoma specialist. Humbled by the award, Parrish said at the ceremony. "Accolades such as these are usually relegated to the end of one's career. At the age of 68, I still feel like the most exciting times in medicine are yet to come." After accepting the award, Parrish asked the audience to stand for a moment of silence in honor of Chinese ophthalmologist Dr. Li Wenliang, who first described the possibility of a SARS-like illness that later proved to be the novel coronavirus," Parrish said. "This was the most memorable moment of the meeting for me," he added. "Wenliang contracted COVID-19 from one of his glaucoma patients and later died and was criticized by the Chinese government for calling attention to these sick patients," said Parrish, who also wrote an editorial in the *American Journal of Ophthalmology* entitled: "Ophthalmologists Are More Than Eye Doctors – In Memoriam Li Wenliang." Parrish sees his role as an academic ophthalmologist at Bascom Palmer "as being a student for life rather than just being a teacher. We must keep asking hard questions and seeking answers."

Bascom Palmer Eye Institute is pleased to announce the appointment of new faculty members. With these physicians, the Institute has increased the size of its faculty to 83 physicians and 19 scientific investigators. This team of 102 is committed to continuing Bascom Palmer's 58-year history of advancing the practices of ophthalmology through innovations in therapeutics, diagnostics, and vision research.



ELENA BITRIAN, M.D., M.S., a board-certified adult and pediatric glaucoma specialist, joins the faculty of Bascom Palmer as an associate professor of ophthalmology, where she is an integral member of the Samuel & Ethel Balkan International Pediatric Glaucoma Center.

A scientific researcher with a focus on epidemiology of adult and pediatric glaucoma, as well as glaucoma surgical techniques, Bitrian also serves as the research director for the Childhood Glaucoma Research Network.

Bitrian received her medical degree and two master degrees (Hospital Management and Statistics in Health Sciences) from the University of Barcelona, Spain, and completed an ophthalmology residency at the Hospital Clinic i Provincial de Barcelona, followed by three years of glaucoma fellowship at the University of California, Los Angeles (UCLA). She then completed a second ophthalmology residency at the University of Minnesota where she intensively trained in pediatric glaucoma with Dr. Alana Grajewski. In 2015, Bitrian joined the faculty at Mayo Clinic in Rochester, Minnesota, where she provided medical and surgical care for adult and pediatric patients with glaucoma.

She has received numerous awards including the Fundacion Caja Madrid Award, bestowed by the royal family of Spain for her research in medicine, the Gold Humanism and Excellence in Teaching Award, Teacher of the Year and Outstanding Course Director awards at Mayo Clinic, a Mentoring for the Advancement of Physician Scientists award, and an Education Scholar Career Development award, among others. She has delivered numerous national and international invited speeches at conferences, published peer-reviewed papers and book chapters, and is one of the editors of the books *Surgical Management of Childhood Glaucoma: Clinical Considerations and Techniques*, and *Childhood Glaucoma: a Compendium*.

Dr. Bitrian is available for consultation on adult and pediatric glaucoma.



ZELIA M. CORREA, M.D., PH.D., one of the country's leading experts in the field of ocular oncology, has joined Bascom Palmer as pending professor of ophthalmology and co-director of the ocular oncology service. Recognized throughout the world for her expertise in ocular oncology, Correa specializes in the

diagnosis and treatment of eye tumors such as ocular melanoma, retinoblastoma, ocular metastasis, and choroidal hemangioma.

Correa most recently served as the Tom Clancy Endowed Professor of Ophthalmology at the Wilmer Eye Institute. She previously served as professor of ophthalmology and Mary Knight Asbury Chair of Ophthalmic Pathology & Ocular Oncology at the University of Cincinnati College of Medicine.

Correa's research focuses on the use of artificial intelligence to distinguish benign from malignant ocular tumors based on imaging characteristics.

A native of Brazil, Correa received a medical degree from the Faculdade de Medicina de São José do Rio Preto, followed by a residency in ophthalmology at the Faculdade de Medicina de Marília. She received a doctorate in philosophy at the Federal University of São Paulo and completed four fellowships: in vitreo-retinal surgery at the Hospital do Olho Rio Preto; in ocular oncology and in ophthalmic pathology at Wills Eye Hospital; and in experimental ophthalmic pathology at McGill University.

Her academic career includes more than 150 peer-reviewed original scientific publications, book chapters and abstracts. She currently serves as a member of the editorial boards of the journals *JAMA Ophthalmology* and *Translational Vision Science & Technology*, and is the ocular oncology section editor for *EyeNet* magazine.

Correa plays a leadership role in the education of ophthalmologists both in the U.S. and internationally. The American Academy of Ophthalmology has awarded her a Secretariat Award, named her a "Guest of Honor" and presented her with the Special Recognition Award for Leadership. She has also received the International Ophthalmologist Education Award. She is available for consultation on ocular oncology, intraocular tumors, retinoblastoma, and ocular melanoma for adults and children.



ERIC R. H. DUERR, M.D., joins the faculty as an assistant professor of clinical ophthalmology. A glaucoma and cataract specialist, Duerr received his bachelor of arts degree in biology from Case Western Reserve University, *summa cum laude*, and his

medical degree from the University of Pittsburgh, where he was inducted into the Alpha Omega Alpha Honor Medical Society. He then completed a residency in ophthalmology and a fellowship in glaucoma at Bascom Palmer. His research interests include medical education and the ophthalmic training of medical students, residents, and fellows at Bascom Palmer. His clinical research is focused on outcomes of glaucoma surgery. Duerr is available for consultation on glaucoma and cataract.



JAIME D. MARTINEZ MARTINEZ, M.D., joins the faculty as an assistant professor of clinical ophthalmology. A corneal and external disease specialist, his areas of expertise include ocular surface, infectious diseases, dry eye, corneal transplantation, scleritis,

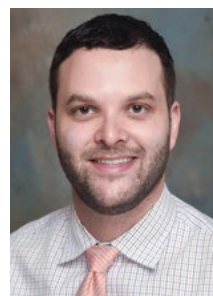
keratoconus, and cataract surgery. He received his medical degree from Universidad Autónoma de Guadalajara, Mexico, *summa cum laude*, and completed his residency in ophthalmology at Asociación para Evitar la Ceguera in Mexico City. He then completed one year of research and two years of clinical/ surgical fellowship at Bascom Palmer in cornea and external disease. He is a recipient of the Gillingham Pan-American Fellowship Award, presented by the Pan-American Association of Ophthalmology and the Retina Research Foundation. Martinez is available for consultation on cornea, cataract, external diseases, and general eye care.

To schedule an in-office or virtual visit, call 1-888-845-0002 or visit BascomPalmer.org



ANDREW J. RONG, M.D., an assistant professor of ophthalmology, is a specialist in oculoplastic, reconstructive, and cosmetic surgery. He is focused on caring for patients with a variety of eyelid and orbital disorders by utilizing modern medical and surgical

therapies. Rong graduated *summa cum laude* from the University of California, Los Angeles, with a degree in microbiology, immunology, and molecular genetics. He received his medical degree at the University of California, Davis, where he graduated with Alpha Omega Alpha honors. He subsequently completed his residency in ophthalmology at Bascom Palmer, followed by a fellowship in ophthalmic plastic and reconstructive surgery. His clinical practice focuses on improving outcomes for patients with functional eyelid and orbital diseases as well as providing surgical options for cosmetic facial rejuvenation. His research interests include advancing the field of therapeutics for a variety of disorders ranging from thyroid eye disease to ocular adnexal sebaceous carcinoma. He has developed new reconstruction techniques in orbital oncology and explored the vascular relationship between orbital diseases and the ocular perfusion. He is available for consultation on oculoplastic surgery including aesthetic and cosmetic eyelid and facial surgery, blepharoplasty, ocular oncology, pediatric oculoplastics, and thyroid eye disease.



ADAM L. ROTHMAN, M.D., a glaucoma and cataract specialist, joins the faculty as an assistant professor of clinical ophthalmology. A South Florida native, he earned a bachelor of science in chemistry with a biochemistry focus, *summa cum laude*, from the University of

Florida, where he received the Howard Hughes Medical Institute Science for Life Fellowship for his research in biopharmaceuticals. He then received a medical degree from Duke University School of Medicine, where he also completed a residency in ophthalmology, and received the Duke University Dean's Scholarship while exploring the relationship of eye microanatomy to systemic health. He returned to Florida to complete

a fellowship in glaucoma at Bascom Palmer. A recipient of a Heed Ophthalmic Foundation Fellowship, Rothman has an interest in using research to improve patient care from learning how to optimize surgical outcomes to better understand the role of demographics in health. He recently received the 2020 RPB/AAO Award for IRIS Registry Research, which will allow him to use a comprehensive database of millions of patient visits from around the country to investigate the change in eye pressure following cataract surgery. His surgical experience includes cataract and glaucoma surgery, including new minimally invasive glaucoma surgeries. He is available for consultation on glaucoma and cataract.



NICOLAS A. YANNUZZI, M.D., a vitreoretinal surgeon, joins the faculty as an assistant professor of clinical ophthalmology. He received a bachelor of arts degree from Harvard College, where he graduated *cum laude* with high honors

in biochemical sciences. Subsequently, he spent a dedicated research year at Memorial Sloan-Kettering Cancer Center and later received a medical degree at Weill Cornell Medical College, where he won the Edward Norton Prize in Ophthalmology (named in honor of Bascom Palmer's founding chair) and was elected to the Alpha Omega Alpha Honor Medical Society. He then returned to Sloan-Kettering, where he completed a transitional internship and conducted research in ocular oncology. Yannuzzi completed his residency in ophthalmology and fellowship in vitreoretinal surgery at Bascom Palmer, where he served as a chief resident and co-director of the ocular trauma service. He is the recipient of the Heed Ophthalmic Foundation Fellowship Award and the Michels' Fellowship Award and is an author in more than 75 peer-reviewed publications. He is available for consultation on medical and surgical retinal disease. ■

“These faculty members represent Bascom Palmer’s long tradition of excellence in patient care, vision research, and ophthalmic education. Their achievements illustrate the richness of talent among our faculty. I thank Dr. David Greenfield, Bascom Palmer’s vice chair for faculty affairs, for his leadership in promoting a culture of academic advancement within the department of ophthalmology.”

— Dr. Eduardo Alfonso



Dr. Jianhua Wang



Dr. Sarah Wellik



Dr. Jayanth Sridhar

JIANHUA (JAY) WANG, M.D., PH.D., M.S., has been promoted to **Professor of Ophthalmology** and awarded tenure with a dual appointment in the department of electrical and computer engineering. Wang has an extensive background in vision research and electronic engineering and focuses on the clinical applications of advanced ophthalmic imaging. He has published more than 180 papers. In his well-funded laboratory at Bascom Palmer, he has significantly advanced clinical research with the development of multiple prototypes of imaging devices to the benefit of patients with various systemic and ocular disorders.

SARAH WELLIK, M.D., has been promoted to **Professor of Clinical Ophthalmology**. A glaucoma and cataract specialist, Wellik’s research interests include the diagnosis, monitoring and surgery of glaucoma, the relationship of glaucoma and ocular surface disease, and glaucoma surgical trials. She is available for consultation on glaucoma and cataract at Bascom Palmer in Plantation and by telehealth.

JAYANTH SRIDHAR, M.D., has been promoted to **Associate Professor of Clinical Ophthalmology**. Specializing in vitreoretinal diseases and surgery, Sridhar serves as co-associate residency program director and medical director of the surgical retina service. He has authored over 80 peer-reviewed publications, is an inducted member of the Retina Society, and has received the American Society of Retinal Specialists Senior Honor and American Academy of Ophthalmology (AAO) Secretariat awards. He also is host and creator of the award-winning educational program “Straight From The Cutter’s Mouth: A Retina Podcast,” the featured podcast of the AAO. ■

Bascom Palmer Ranked Best Ophthalmology Residency Program



Bascom Palmer Eye Institute's ophthalmology residency program has been ranked best in the U.S. by Doximity, an online professional network for U.S. physicians. The 2020-2021 Doximity Residency Navigator rankings were compiled from survey responses from board-certified ophthalmologists around the country. Bascom Palmer's residency program is also ranked #1 in the nation by *Ophthalmology Times*.

The path from medical school to Bascom Palmer's ophthalmology residency program is rigorous. Each year, Bascom Palmer receives more than 500 applications for only seven residency positions.

"Bascom Palmer continues to attract the best and brightest medical students into its residency program each year. All of our residents are highly accomplished, even before they begin their formal training with us. Our mission is to create a learning environment that helps them fully realize their immense potential," said **STEVEN J. GEDDE, M.D.**, Bascom Palmer's vice chair of education and residency program director. "Each graduating resident will provide outstanding care to his or her patients, and many will join academic institutions to teach others. This allows for an exponential dissemination of ophthalmic knowledge and excellence in patient care. The Bascom Palmer



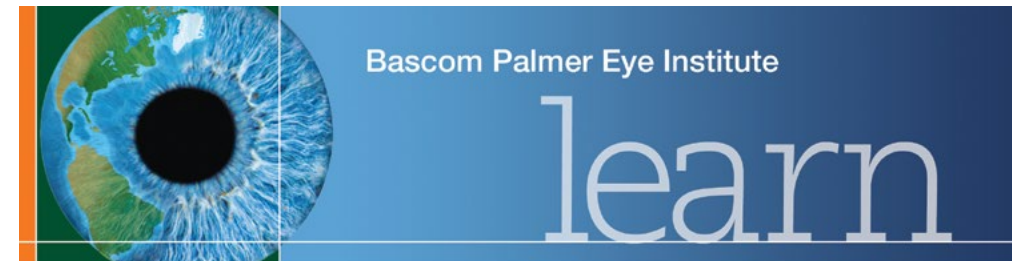
Eye Institute is significantly impacting the field of ophthalmology through its training programs," he added. Forty-six graduates of Bascom Palmer's training programs have become ophthalmology department chairs at medical schools and teaching hospitals throughout the world.

The large number of patients seen each year as well as their broad range of eye conditions provides a tremendous learning opportunity for young ophthalmologists-in-training. "Even during the COVID-19 pandemic, the patient diversity continues, as we are seeing patients from around the world via telehealth and virtual visits," said Gedde, who completed a fellowship in glaucoma at Bascom Palmer in 1996 and now holds the John G. Clarkson Chair in Ophthalmology. The residents are mentored by an outstanding faculty that provides a robust learning environment for clinical and surgical care, research, and community service.

"As a 1984 graduate of the Bascom Palmer residency program and now director of the Bascom Palmer Eye Institute, I have experienced the value of the residency 360 degrees with 20/20 vision," said **EDUARDO C. ALFONSO, M.D.**, the Kathleen and Stanley J. Glaser Chair in Ophthalmology. "Since its inception, Bascom Palmer's residency program has strived to provide an environment where learning and education supports ophthalmology's contribution to mankind - an environment of collegial interactions that prepares us to be better humans, clinicians, scientists, and leaders - in essence 'men and women for others.' I hope that Bascom Palmer's residents continue to improve the lives of all with whom they interact, as it is their given responsibility with this ranking." ■

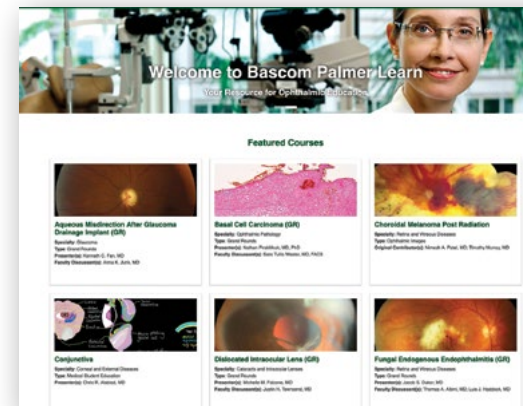
Bascom Palmer Learn... Anytime, Anywhere

Bascom Palmer announces the launch of www.BascomPalmerLearn.org, an online learning portal and educational resource for ophthalmologists and eye care professionals.



BascomPalmerLearn.org - your online resource for ophthalmic education

The new portal provides access to an ever-increasing collection of Bascom Palmer's Grand Rounds, lectures, ophthalmic images, surgical videos, and medical student courses. Specialties include retina and vitreous diseases, glaucoma, corneal and external diseases, cataracts and intraocular lenses, ocular oncology, pediatric ophthalmology and strabismus, neuro-ophthalmology, ophthalmic plastic and reconstructive surgery, uveitis, and comprehensive ophthalmology. Physicians also have the option of taking courses for continuing medical education (CME) credit, downloading their certificate upon successful completion of the course.



Dr. Steven Gedde

and Bascom Palmer's vice chair of education. "With its new learning portal, Bascom Palmer is able to share its educational resources with the worldwide ophthalmic community."

Known throughout the world for its exceptional training programs, Bascom Palmer has always regarded the education of its ophthalmology residents, fellows, medical students, and ophthalmologists from around the world

as one of its highest priorities. Virtual learning brings this tradition to a new level by allowing medical professionals from around the world to acquire knowledge, learn new treatment options, and to increase the competency and skills needed for patient care from Bascom Palmer's experts, from anywhere at any time.

"This is a fantastic resource for all levels of students and trainees. It provides the learner with broad exposure to the myriad cases seen at the Bascom Palmer Eye Institute, ranging from the mundane to the esoteric," said **CHRIS ALABIAD, M.D.**, assistant dean for student affairs for the Miller School of Medicine and assistant professor of clinical ophthalmology. "It also highlights the advances in diagnosis and treatment, many of which are being spearheaded Bascom Palmer."



Dr. Chris Alabiad

"New courses, lectures, and ophthalmic images will be added on a weekly basis, ensuring there is always something new to learn," said **MARIA SERRANO-BROSCO**, executive director of Bascom Palmer's Global Center for Ophthalmic Education. "As education around the world is shifting to virtual learning, now more than ever, Bascom Palmer is committed to advancing ophthalmic knowledge and sharing it with the worldwide ophthalmic community. We are confident that BascomPalmerLearn.org will be instrumental in accomplishing this mission." ■

"Advances in telecommunication have allowed the globalization of medical education. With its new learning portal, Bascom Palmer is able to share its educational resources with the worldwide ophthalmic community."

— Dr. Steven Gedde



John Guy, M.D., Esteemed Researcher and Physician

JOHN R. GUY, M.D., a Bascom Palmer professor of ophthalmology, holder of the Rodgers Research Chair in Ophthalmology, and one of the world's leading experts in the field of neuro-ophthalmology, passed away on May 26, 2020 at the age of 68.

"John Guy was a brilliant physician-scientist, known for his pioneering gene therapy research for the treatment of Leber hereditary optic neuropathy (LHON), as well as his research on optic neuritis, multiple sclerosis and other diseases caused by mutations in mitochondrial DNA," said Eduardo C. Alfonso, M.D., Bascom Palmer's director.

Byron L. Lam, M.D., added, "John was an extraordinary top-notch scientist deeply devoted to the pathophysiology and treatment of optic nerve disease. We will always remember his contributions and miss his intellectual stimulation and understated quirky humor. John's unexpected passing is an irreplaceable loss to the field of neuro-ophthalmology."

Guy grew up in Queens, New York. He received a bachelor of arts degree from New York University and was awarded a doctor of medicine degree by the University of Miami School of Medicine. He trained in neurology at Temple University Medical Center and completed an ophthalmology residency at Georgetown University Medical Center. He later completed a fellowship in neuro-ophthalmology at Wills Eye Hospital and an observership in orbital surgery at Moorfields Eye Hospital in London, England.

He began his academic career at the University of Florida in 1983, and joined Bascom Palmer in 2008.

Having studied LHON for more than 20 years, Guy's experience and knowledge are unparalleled. He pioneered a novel technological treatment for the blinding inherited genetic disorder. By successfully modifying a virus, he and his team were able to introduce healthy genes in the mitochondria to correct the genetic defect. Doing so prevented the deterioration of the retinal cells forming the optic nerve. This research demonstrated that when efficiently introduced into mitochondria, normal DNA can correct a biochemical defect in cellular energy production and restore visual function.

Guy's approach to treating LHON exhibited the immense potential for gene therapy applications for many diseases similarly caused by mutations in mitochondrial DNA, not limited to the eye. The revolutionary gene therapy he conducted with his colleagues may provide the platform to treat other blinding and life-threatening conditions including cancers, Parkinson's disease, aging, macular degeneration and glaucoma.

A world-class scholar, his research has been supported by the National Eye Institute of the National Institutes of Health. At the time of his death he held four awards including a \$6 million U10 grant, a recent \$1 million R24 grant on mito-targeted AAV to treat LHON caused by ND4 mutation, and two R01 basic research awards.

He is survived by his wife, Helen. Guy's patients valued his expertise and his colleagues respected his unparalleled excellence in clinical and scientific research. He will be greatly missed by all who had the honor to work with him. ■

George Blankenship M.D.

GEORGE W. BLANKENSHIP, JR., M.D., a talented innovator of vitreoretinal surgery and one of the world's leading experts in the management of patients with proliferative diabetic retinopathy, passed away on July 26, 2020. He was 79. He joined the faculty at Bascom Palmer in the early 1970s and led its efforts in the management of patients with diabetic retinopathy for nearly 20 years. He served as principal investigator on the National Institutes of Health-sponsored Diabetic Retinopathy Study, Early Treatment Diabetic Study, and Diabetic Vitrectomy Study, each of which demonstrated a beneficial effect of treatment.

"George was energetic and his enthusiasm was infectious among Bascom Palmer faculty and staff," said John G. Clarkson, M.D. "He was a unique individual and will be remembered as much for his personal contributions to Bascom Palmer as his professional contributions to our field."



Harry W. Flynn, Jr., M.D., added, "Beloved by colleagues and friends alike, George was a superstar at Bascom Palmer. His concern for his co-workers and their families endeared him to all. He will be missed."

In 1989, he became chair of the department of ophthalmology at Pennsylvania State University, where he served until his retirement. A highly respected leader in the field of ophthalmology, he served as president of the American Academy of Ophthalmology, and was a member of the American Ophthalmological Society, Club Jules Gonin, and Retina Society.

Following his retirement, he moved to Hilton Head, South Carolina, where for more than a decade, he volunteered weekly at the Volunteers in Medicine clinic, serving the eyecare needs of the medically underserved and their families who live or work on Hilton Head Island.

Blankenship was a gifted surgeon, brilliant practitioner, devoted teacher and mentor. Throughout his long and storied career, he always maintained his kindness, integrity, and sense of humor. In addition to his beloved wife, Barbara, he is survived by two daughters and two grandchildren. ■

Richard Shugarman, M.D.

RICHARD SHUGARMAN, M.D., voluntary professor at Bascom Palmer, passed away in May at the age of 80. Although not an alumnus of Bascom Palmer's training programs, he was involved in the education of hundreds of residents and fellows throughout his 50-year affiliation with the Institute.

He organized and ran post-graduate education programs for our continuing medical education department and created educational seminars for practicing physicians. While in private practice in Palm Beach County, he traveled regularly to Miami to participate in weekly Grand Rounds and other Bascom Palmer conferences. He attended every lecture he could – he was truly a lifelong learner of the ophthalmic profession.

His involvement over many years in the resident contact lens clinic was legendary. William Winegar, director of our Contact Lens Services, shared, "Dr. Shugarman was a strong presence in the contact lens service. He attended the contact lens resident rotation on Thursdays for more than four decades. He had a vast interest in teaching and inspiring the residents on the importance of contact lens knowledge and how it is relevant in the practice of ophthalmology."

Not only a staunch supporter of Bascom Palmer, Shugarman was also a great advocate for ophthalmology at the state and national level. He mentored residents and fellows on developing advocacy skills at the American Academy of Ophthalmology Advocacy Meeting in Washington D.C. For 12 years, he took resident physicians to Capitol Hill to teach them how to be advocates for their patients and profession.

In honor of his legacy, Bascom Palmer has created the "Dr. Richard Shugarman Advocacy in Ophthalmology Education Program." For more information, please contact the development office at bpeidevelopment@med.miami.edu.

He is survived by his wife, Rhona – his high-school sweetheart for 60 years, three children and four grandchildren. Bascom Palmer Eye Institute was fortunate to have been touched and influenced by this extraordinary and wonderful man. ■



Lunch and Learn

“Emerging Breakthroughs in Glaucoma,” was a hot topic at Bascom Palmer’s Palm Beach Medical Forum held in early January. Glaucoma specialist, David S. Greenfield, M.D., shared his latest research on protecting the optic nerve to prevent vision loss for patients suffering from the disease.

First held in 1988, the annual forum showcases Bascom Palmer’s physicians sharing recent advancements in the field of ophthalmology. Cornea, refractive and cataract specialist, Terrence P. O’Brien, M.D., introduced new high-tech tools being used to fine-tune outcomes in cataract surgery, including femtosecond lasers to control and reduce astigmatism as well as intraoperative aberrometry. This innovation provides real-time precise optical measurements during the procedure for verification of optimal lens power and orientation for each individual patient.

Jorge A. Fortun, M.D., retina specialist and medical director at Bascom Palmer’s Palm Beach Gardens campus, told the audience of 200 about clinical trials underway for patients with age-related macular degeneration. The trials are evaluating the implantation of medication “depositories” in the eye that could potentially eliminate the need for monthly injections, having patients refill them in the clinic twice per year.



Dudley and Peggy Moore, Chairs



Mary Freitas and Erin McGould



Dr. Eduardo and Molly Alfonso



Drs. Jorge Fortun, Terrence O'Brien and David Greenfield



Bud Hendrick and Kipper Lance Hendrick

Vision Beyond 2020



Bascom Palmer’s Gala 2020, the exciting annual event that celebrates the Institute’s sight-saving mission, was held at The Breakers in February. This popular gala, celebrating the generosity and support of the Palm Beach community, was chaired



by the incomparable Iris Apfel, with Lois Pope serving as Honorary Chair. The gala was the opportune time to celebrate the impending opening of the Lois Pope Center for Retinal & Macular Degeneration

Research on Bascom Palmer’s Palm Beach Gardens campus. The Center is the result of Mrs. Pope’s 2018, \$12 million gift, the largest single donation that Bascom Palmer has received in its 58-year history.

Special thanks to Grand Gala Benefactors Mary Lee and Richard Bastin; Grand Gala Patrons Julie and Mike Connors, Findlay Galleries, The McNulty Charitable Foundation, and Christy and Earl Powell; and Gala Patrons Raysa and Alfonso Fanjul, Lois Pope, Ari Rifkin, the Irvin Saltzman Family Foundation, and Suzy and Jack Welch.



Iris Apfel, Chair

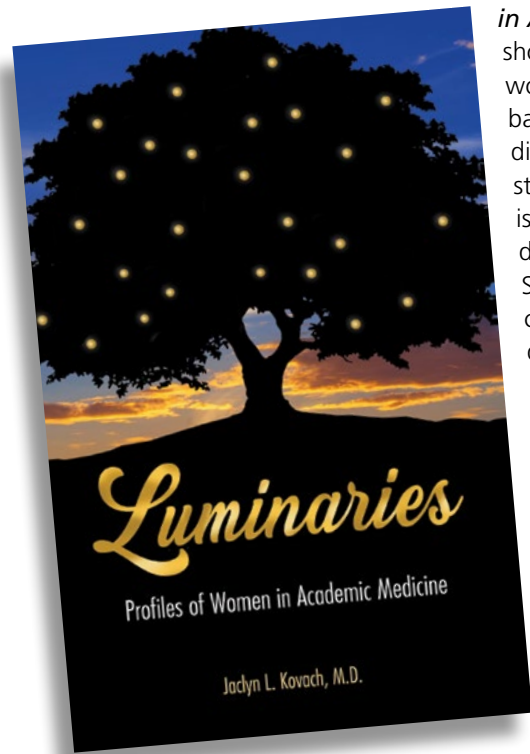


Honorary Chair Lois Pope with Brian Wells



Marietta and Dale McNulty

Motivated by a desire to mentor, guide, and inspire, **JACLYN L. KOVACH, M.D.**, a retina specialist and associate professor of clinical ophthalmology, created a book of autobiographic vignettes written by 24 female physicians, researchers, and educators at the University of Miami Miller School of Medicine. Released earlier this year, *Luminaries: Profiles of Women in Academic Medicine*,



showcases the accomplished women from a variety of backgrounds, academic disciplines, and career stages. Their commonality is the ability to pursue their dreams despite adversity. Some have fled unstable countries or challenged daily discrimination, and others have battled their own self-doubt. These champions, including Bascom Palmer ophthalmologists, **JANET L. DAVIS, M.D.**, and **AUDINA M. BERROCAL, M.D.**, have selflessly chosen to give back to their students and



Dr. Jaclyn Kovach

communities in a life of service and leadership at the University of Miami. Congresswoman Donna E. Shalala, (D-FL), and past President of the University of Miami, wrote the book's epilogue.

"The impetus for creating this book, or "virtual mentor," was a desire to inspire, guide, and empower those early in their medical training," said Kovach. "Finding a mentor – someone who will selflessly facilitate one's career – can be elusive, as can acquiring exposure to the many unique career niches that exist in medicine. The road to becoming a leader in academic medicine is challenging, especially for women, and mentors can encourage students and help them navigate this daunting landscape."

"During the current global health crisis, recognizing the critical work of doctors and academicians is more important than ever," Kovach added. "I hope that those who have or are considering a career in medicine find the inspiration and guidance to help them identify their personal definition of success and go get it!" A generous patient of Kovach's was the primary donor of the book that is currently available on Amazon.

Alexia de Gunzburg was born with a rare neurological condition called familial dysautonomia (FD). Because the nerve endings in her body were not fully developed, she cannot feel hot, cold or pain. The disorder also affected her cornea, the optic nerve and her ability to produce natural tears, making it increasingly difficult for her to see.

While Alexia's vision has gotten worse through the years, that has not slowed her down. Now 39, Alexia enjoys painting and has written an inspirational book, "Steps of Life: Exceeding Boundaries" about her condition. "I love my life and see my condition as an inconvenience but not a disability," she wrote. "I want other people to see me that way too and just focus on me as a person, and my art and my stories and how grateful I am to be alive."

Although legally blind, Alexia can see – thanks to the care she has received from Bascom Palmer, including Carlos Mendoza Santiesteban, M.D., assistant professor of clinical ophthalmology and neuro-ophthalmology specialist. "Our family is very grateful to the Institute's entire team," said Gerard de Gunzburg, Alexia's father. He and his wife Brooke are longtime supporters of Bascom Palmer. When the Institute's new building was under construction in 2015, he took photographs of the work and put together a book for the Naples team.

After moving from London to Naples in 2011, Gerard de Gunzburg reached out to Stephen G. Schwartz, M.D., M.B.A., professor of clinical



Isaac Lidsky with Alexia de Gunzburg at the 2020 Vision Luncheon in February.

ophthalmology and medical director of Bascom Palmer Eye Institute at Naples. "I was amazed that he knew about Alexia's condition, as there are only about 400 such cases in the world," de Gunzburg said. "Through the years, they have helped with her care and guided us to a company that makes extra-large contact lenses that Alexia wears every day. They are filled with a saline solution that serves as an artificial tear reservoir, providing constant lubrication to her eyes."

"Throughout the COVID-19 pandemic, the Naples team has provided essential vision care for our community," said de Gunzburg, adding that an out-of-state friend unable to see his regular doctor was able to receive medical injections for a retinal condition at the Institute. "The entire Bascom Palmer team here does a tremendous job."

Council of 20/20



We have reached a landmark year for Bascom Palmer Eye Institute – the year 2020.

This is a number most often discussed in the field of ophthalmology, as it represents a baseline for what is considered normal or 20/20 vision. To commemorate the 2020 milestone, we have created the Council of 20/20 – a group of distinguished Bascom Palmer ambassadors and philanthropists who will be recognized at events and in *Images* for their longstanding and unwavering support of Bascom Palmer's clinical and research activities. In essence, they will be the effectors of change in our mission. We are grateful to the individuals who have already joined our Council of 20/20 and encourage others who wish to be change agents in vision research to join us.

There is a broad range of philanthropic giving societies available. For additional information, please contact the development office at bpeidevelopment@med.miami.edu.

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NAPLES 2020 VISION LUNCHEON



Inspiration, admiration and humility were on full display at the the Naples 2020 Vision Luncheon in February. Isaac Lidsky, the event's guest of honor, shared his remarkable story that started at the age of 13, when he began to go blind from retinitis pigmentosa, a rare inherited degenerative disease of the retina. He retold his journey that included Harvard College, where he graduated at 19. By the age of 25, he was completely blind but found the vision that led him to an extraordinary and fulfilling

life that included serving as a law clerk at the United States Supreme Court, starting a tech company and building a successful construction business. He and his wife are the proud parents of four children. He was joined by Bascom Palmer's Byron L. Lam, M.D., who spoke about inherited retinal diseases and the gene therapy trials underway at Bascom Palmer. Thanks to the generous donors at the event who pledged \$50,000 to become members of the 2020 Vision Council to support vision research at Bascom Palmer.



Isaac Lidsky with Dr. Bryon Lam



Enid and Jerry Weygandt



Lisa Merritt and Dolly Korest



Stacey Deffenbaugh, Ed Staros



Steven Finker,
Dr. Carol Karp

When Steven Finker was 15, he discovered a brown spot on the surface of his right eye. Concerned about the condition, he turned to Bascom Palmer for a careful evaluation. "I have had a small spot, like a freckle, in my eye since I was a little kid," said Finker, who is now 21. "When it started to change shape and color, I wanted to find out what was going on."

Beginning with his initial visit, **CAROL L. KARP, M.D.**, has monitored Finker's eye condition, including a recent virtual visit following the COVID-19 outbreak. Using highly magnified photographs and high-resolution optical coherence tomography (OCT), Karp compared images of the brown spot, called a conjunctival nevus, taken at each session, to see if there were any signs it was turning into a dangerous ocular melanoma.

In May, Karp connected with Finker for a follow-up look at his eye. She then advised him to come into Bascom Palmer for a visit. Karp took fresh OCT images of his eyes, and he was able to leave in a few minutes. "I felt very safe during my visit, as all the protective guidelines were followed," he said.

After reviewing the OCT scans, they discussed the results. "Steven's brown spot is typical of a benign nevus," Karp said. "We may continue to monitor the lesion or decide to remove it in the future."

As professor of ophthalmology, Richard K. Forster Chair in Ophthalmology, and the Dr. Ronald & Alicia Lepke Endowed Professorship in Cornea and Ocular Surface Diseases, Karp has extensive experience in diagnosing and treating pigmented spots, including nevi (freckles), primary acquired melanosis, racial melanosis, pigmented squamous cell carcinoma, and melanomas. "Many of these spots are benign, but if we see changes, we become concerned for possible malignant transformation," she said.

Karp said a nevus may be present at birth, but without pigmentation, it may not be immediately visible. "Many parents first notice the spot when

"I am seeing many of my current patients by virtual visits, as well as new patients from around the country and the world. Not only do they like seeing me from the comfort of their homes, they also feel safe, and are happy to save travel time and costs."

— Dr. Carol Karp

a child is about age 2 to 5 and the nevus begins to darken," she said. "Other times, it may change in coloration with hormonal changes, such as puberty or pregnancy." Individuals with dark skin may have pigmented spots in both eyes, which are usually benign and not a cause for concern.

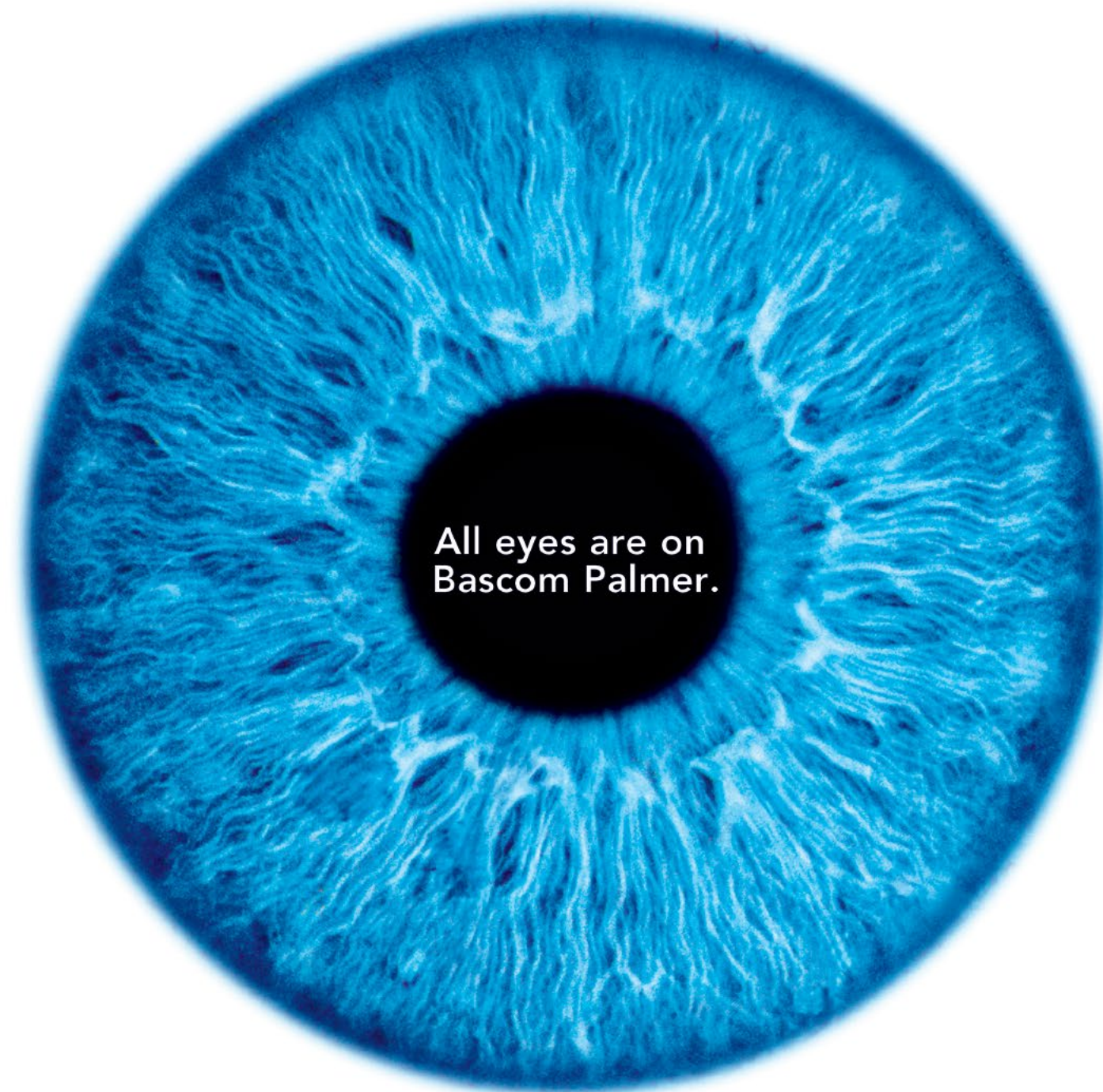
However, every nevus – which can occur on the eyeball surface or under the eyelid – has a small risk of becoming malignant, she added. "Danger signs include a change in the blood vessels going into the nevus or a change in shape or size or rapid darkening in color. Any new spot that pops up in an adult should be evaluated at once."

To better diagnose and follow tumors on the eye surface, Karp collaborated with **JIANHUA (JAY) WANG, M.D., PH.D., M.S.**, Bascom Palmer professor of ophthalmology and electrical and computer engineering, to develop Bascom Palmer's customized anterior OCT imaging system. "It allows us to do an "optical biopsy" of the eye, including any lesions hidden under the eyelid," she said.

If there is a concern about the nevus, Karp can treat it with a surgical removal, which is combined with a freezing treatment called cryotherapy. In other types of tumors, sometimes topical eye drops that kill cancer cells can be used. "All these therapies are easier when the lesion is small, so it is important to see an eye doctor regularly" she added.

Finker is putting his trust in Bascom Palmer's expertise in this field. In addition, his family's private foundation (the Finker-Frenkel Foundation) is supporting the Institute's research program. "I've received great care at Bascom Palmer," he said. "Dr. Karp is an excellent doctor. She keeps me informed at every step of the way, and I know I'm in good hands." ■

To support Bascom Palmer's vision research, please contact the development office at bpeidevelopment@med.miami.edu.



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