

Bascom Palmer Eye Institute® | University of Miami Health System



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APRIL 2016

Images

Global
Leadership

New Hope
for Treating
Dry AMD

Clinical Trial
Breakthrough
in Hereditary
Eye Disease

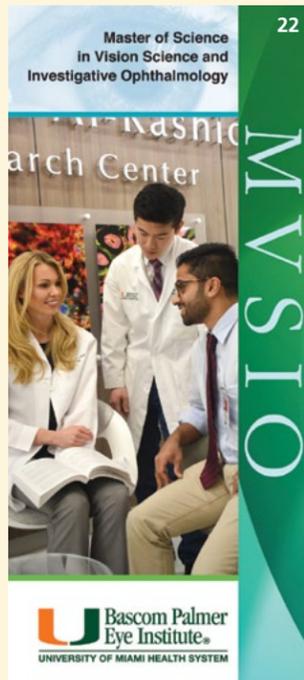


Bascom Palmer Eye Institute's mission is to enhance the quality of life by improving sight, preventing blindness, and advancing ophthalmic knowledge through compassionate patient care and innovative vision research.

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Bascom Palmer's worldwide influence on patient care, research and education



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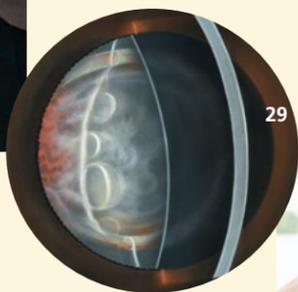
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Editor's Note:
A picture in the last issue of *Images* was published in error. It showed Malcolm and Sandra Berman, not Leonard and Norma Klorfine.

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Dear Friends and Colleagues:

Bascom Palmer Eye Institute is committed to global leadership in medical education, vision research and clinical care. Every day, our dedicated team of physicians, scientists and other professionals carry out the University of Miami's mission of transforming lives through teaching, research and service.

This issue of *Images* highlights our international impact on the field of ophthalmology. Many of the residents and fellows who trained at Bascom Palmer have gone on to distinguished careers in academic medicine in the United States or in their home countries, training new physicians and raising the standard of care throughout the world. Others have gone into private practice, delivering high-quality clinical services to patients of all ages. Furthermore, many have also gone into scientific research and are changing the future of ophthalmology.

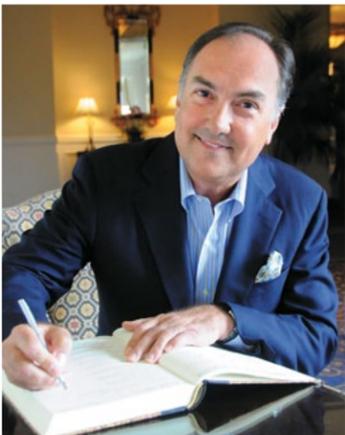
I am especially proud of the many Bascom Palmer professionals who volunteer to help underserved communities around the globe, from Haiti and the Galapagos Islands to Mongolia and Nigeria. We also respond quickly to natural disasters like earthquakes and hurricanes to provide emergency vision care to victims and first responders.

Next year, Bascom Palmer will be opening its first international eye center, a 113,000-square-foot facility with more than 40 eye examination rooms and an ambulatory surgery center in the United Arab Emirates. Along with providing specialized vision care to patients in the Middle East, the new facility will provide a foundation for expanding our medical education and collaborative research initiatives in the region.

Here in South Florida, our researchers continue to make progress in understanding glaucoma, age-related macular degeneration and diseases of the optic nerve and retina. It typically takes many years of extensive laboratory studies to develop potential new therapies, and you can read about their latest clinical trials using new knowledge of stem cells and gene therapy.

As we look ahead to the University of Miami's 100th anniversary in 2025, Bascom Palmer will continue to focus on preventing blindness, improving eyesight and restoring lost vision in our community, our nation and around the world. We thank our donors for their ongoing support of our physicians and scientists, our values and our mission.

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





Global Leadership

Bascom Palmer's Impact on Clinical Care, Education and Research Extends Around the Globe

A young Haitian girl is alive today because a surgeon from Bascom Palmer volunteered to fly to Haiti to remove a cancerous tumor from her eye. Glaucoma patients around the world are benefiting from a sight-saving device developed in collaboration with an eye center in the Dominican Republic. And ophthalmologists in the Middle East will soon be able to learn the latest findings in clinical care from Bascom Palmer specialists serving in the region.

These are just a few examples of Bascom Palmer Eye Institute's global impact on vision care, medical education and research. "Our faculty, residents and fellows are changing the landscape of international ophthalmology," said Richard K. Lee, M.D., Ph.D., associate professor of ophthalmology and director of community ophthalmology for Bascom Palmer.

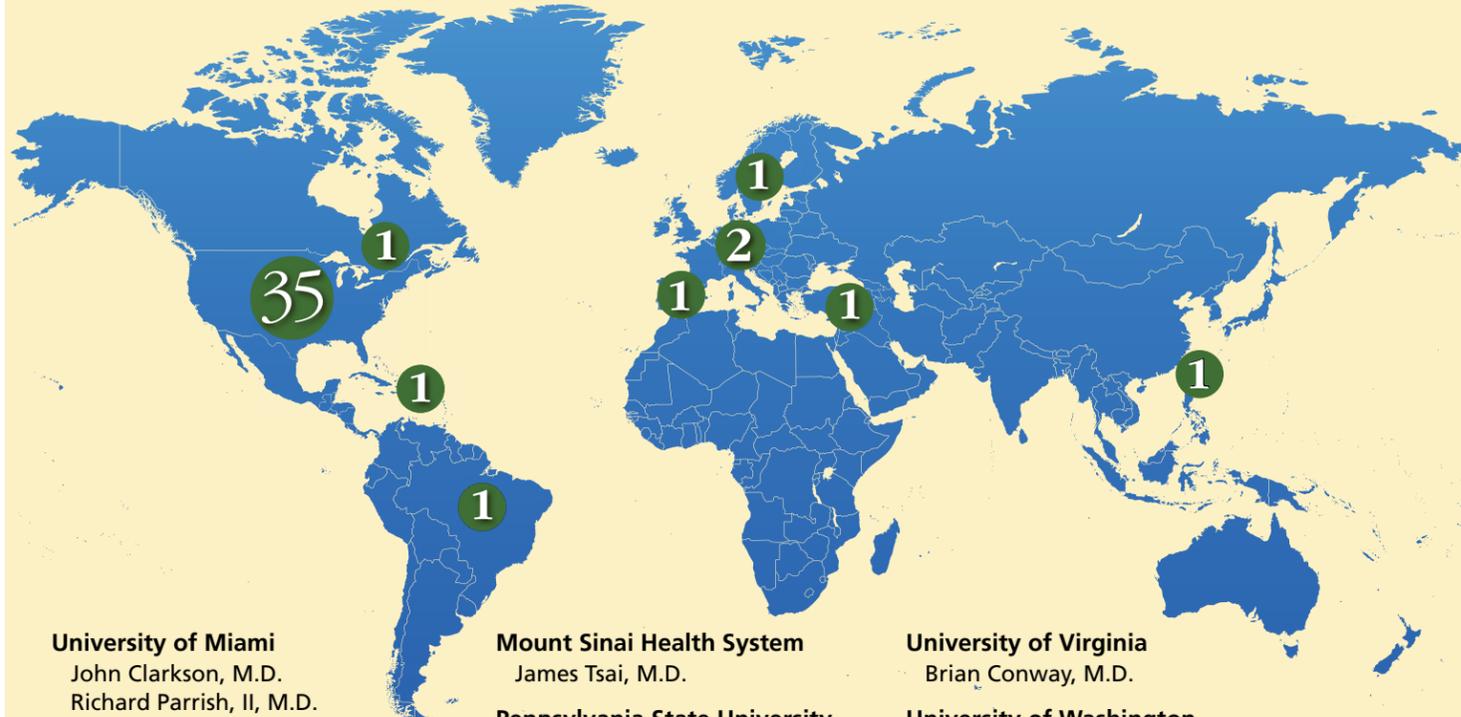
From providing leadership to many of the world's top academic ophthalmology programs to introducing vision screening programs or delivering eyeglasses to remote communities in Asia, Africa and the Americas, Bascom Palmer is committed to international outreach.

"For many decades, Bascom Palmer has made it a priority to educate medical professionals from around the globe, to exchange information with other ophthalmologists, and to share fresh ideas and approaches to patient care," said Eduardo C. Alfonso, M.D., Bascom Palmer's chairman and

"For many decades, Bascom Palmer has made it a priority to educate medical professionals from around the globe, to exchange information with other ophthalmologists, and to share fresh ideas and approaches to patient care."

— Eduardo C. Alfonso, M.D.

44 GRADUATES OF BASCOM PALMER'S TRAINING PROGRAMS HAVE BECOME OPHTHALMOLOGY DEPARTMENT CHAIRS AT MEDICAL SCHOOLS AND TEACHING HOSPITALS THROUGHOUT THE WORLD.



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Boston University

Stephen Christiansen, M.D.

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David Quillen, M.D.

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Stanford University

Mark Blumenkranz, M.D.
Jeffrey Goldberg, M.D.

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University of Alabama

Lanning Kline, M.D.

University of Arkansas

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University of Chicago

William Mieler, M.D.

University of Florida

William Driebe, M.D.
Sonal Tuli, M.D.

University of Illinois

Jose Pulido, M.D.

University of Nebraska

Raymond Records, M.D.

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Gregory Skuta, M.D.

University of Virginia

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University of Washington

Philip P. Chen, M.D.

Wayne State University

Gary Abrams, M.D.

Yale University

James Tsai, M.D.

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University of Ottawa

Steven Gilberg, M.D.

Hospital Dr. Elias Santana, Dominican Republic

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Freidrich Kruse, M.D.

University of Lubeck, Germany

Horst Laqua, M.D.

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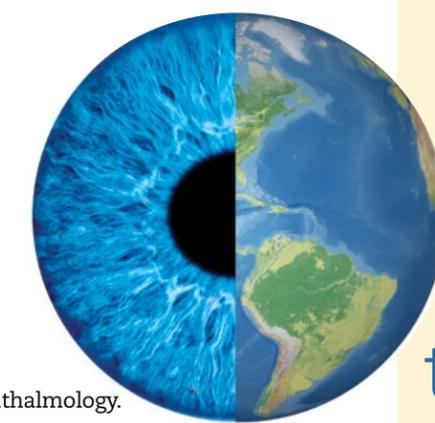
Per Soderberg, M.D.

Chuang-Gung Memorial Hospital, Taiwan

Ray Jui-Fang Tsai, M.D.

Baskent University, Turkey

Dilek Dursun, M.D.



Changing the World

holder of the Kathleen and Stanley J. Glaser Chair in Ophthalmology. "Our generous supporters around the world have helped advance our mission of service, education and research."

Reflecting Bascom Palmer's longtime leadership in the region, Alfonso is the president of the Pan American Association of Ophthalmology, an international organization with members from more than 35 countries in the Western Hemisphere. He was also honored with the University of Monterrey's *Catedra Laboris* designation, akin to an honorary chair, after signing a cooperation agreement with the *Fundación Ojos para México* (the Eye Foundation for Mexico) to promote ophthalmic research, knowledge-sharing and student outreach.

A commitment to service

Nowhere is Bascom Palmer's global leadership more striking than the Institute's commitment to service in the Caribbean and Latin America. Faculty members use satellite and digital networks to provide telemedicine and videoconferencing services. They consult with local physicians, reviewing a patient's symptoms and studying diagnostic images of the eye. They often handle complex cases on a volunteer basis, working closely with medical professionals in local communities.

For many years, Bascom Palmer's physicians and staff have been active volunteers in Haiti, one of the most medically underserved countries in the Western Hemisphere. As an example, Thomas E. Johnson, M.D., professor of clinical ophthalmology, traveled to Haiti to remove a large orbital tumor that was threatening the life of an 11-year-old girl. "Since the surgery, she has been getting chemo and radiation therapy in Haiti and the neighboring Dominican Republic," said Johnson. "I hear from the family every week and she's now doing fine."

The Institute's commitment to Haiti is an important element of Project Medishare, a University of Miami Miller School of Medicine initiative, that has brought more than 7,000 medical professionals to Haiti since the major 2010 earthquake.

"Our Haiti team includes Bascom Palmer faculty members that volunteer as consultants and surgeons, and help staff a clinic with other visiting volunteer ophthalmologists and local ophthalmologists (through the Haitian Society of Ophthalmology)," said Lee. "Through an online network we are developing with ophthalmology partners, we can connect with medical centers throughout the island."

Through Project Medishare, Lee initiated a laser therapy program to reduce the intraocular pressure (IOP) in glaucoma patients, helping to save their vision. "Many glaucoma patients in Haiti have neither access nor economic resources to pay for glaucoma medications," he said. To improve glaucoma care, Lee is also translating the findings from a Bascom Palmer glaucoma study of Haitian-Americans in Miami into outreach programs for Haitians in Port-Au-Prince.

A new humanitarian initiative

In the remote Galapagos Islands off the coast of Ecuador, a new Bascom Palmer humanitarian initiative is bringing badly needed vision screening and eye care services to more than 3,000 local residents with the help of Ecuadorian Society of Ophthalmology members and the non-governmental Ecuadorian organization Intercultural Outreach Initiative.

"A generous donation of optical equipment has allowed residents of the island of Isabela, the largest of the Galapagos Islands, to be screened for vision problems, some for

In the past nine years, Bascom Palmer's residents have traveled the world bringing their medical expertise to thousands of people. There are no boundaries to Bascom Palmer's specialized care.

Africa Amy C. Scheffler, M.D.

Argentina Sonal B. Dave, M.D.
Jane Fishler, M.D.
Cynthia P. Nix, M.D.
Jayanth Sridhar, M.D.

Australia Daniel B. Driscoll, M.D.
Anita R. Shirodkar, M.D.
Anil S. Vedula, M.D.

Belize Thomas S. Shane, M.D.

Bosnia Lejla Mutapcic, M.D.

Brazil Lisa C. Olmos, M.D.
Justin Townsend, M.D.

China Thomas W. Harper, M.D.

Dominican Republic Matthew J. Weiss, M.D.

Egypt Andrea L. Kossler, M.D.
Natalie A. Stanciu, M.D.

Ethiopia Roger A. Goldberg, M.D.
Ryan F. Isom, M.D.
Ajay E. Kuriyan, M.D.
David W. Parke, M.D.
Ryan C. Young, M.D.

Guatemala Jonathan S. Chang, M.D.
Kara M. Cavuoto, M.D.

Haiti Thomas S. Shane, M.D.

Iceland Michael R. Feilmeier, M.D.

India Daniel L. Chao, M.D.
Yasha S. Modi, M.D.
Aleksandra Rachitskaya, M.D.

Charles C. Wykoff, M.D.

Israel David B. Samimi, M.D.

Lebanon Hassan A. Aziz, M.D.

Nepal Michael R. Feilmeier, M.D.
Katherine E. Johnson, M.D.

Nicaragua Sara F. Grace, M.D.

Spain Luis J. Haddock, M.D.

Thailand Theodore Leng, M.D.



the very first time,” said Lee. “We also collaborate with students at the Miller School of Medicine to add to Bascom Palmer’s collection of 12,000 used and donated eyeglasses that are being provided to children and adults in this isolated island community. One of our ambitious goals is to provide for the refractive needs of this entire island, by working with the national ophthalmology society and the local community.”

Last year, Victor Perez, M.D., professor of ophthalmology, led a delegation of 13 Bascom Palmer faculty members to Guayaquil, Ecuador, for a national conference organized with the Ecuadorian Society of Ophthalmology. Following the meeting, Lee and Sander R. Dubovy, M.D., the Victor T. Curtin Professor of Ophthalmology, visited Isabela.

“We saw many fishermen and farmers who suffered from cataracts and other disorders who had no access to eye doctors or prescription eyeglasses,” Lee said. “The only medical facility on the island had neither equipment nor expertise to diagnose and treat eye disease. Adding to the lack of medical care on the island, local residents do not have the resources to pay for a boat ride to Santa Cruz followed by a flight to Quito or Guayaquil for vision care.”

A flying hospital

Along with providing on-the-ground clinical services, Bascom Palmer’s faculty have also traveled around the world in the ORBIS Flying Eye Hospital, a converted DC-10 aircraft equipped with operating, recovery, and laser treatment rooms, as well as a 48-seat classroom where healthcare professionals gather for lectures, discussions and live broadcasts of surgical procedures by visiting faculty.

Operated by a global nonprofit organization dedicated to saving sight in underdeveloped countries, the ORBIS Flying Eye Hospital has invited Alfonso, Johnson, Lee, Carol Karp, M.D., professor of ophthalmology, and other Bascom Palmer specialists to provide humanitarian vision care. “I try to take part in as many of their trips as I can,” said Johnson, whose transcontinental itinerary has included China, Mongolia, Bangladesh, Armenia, Bulgaria, Nigeria, Kenya, Peru, Paraguay and El Salvador.

Providing mobile care in Japan

When the Tohoku-Pacific Ocean earthquake and tsunami struck coastal Japan in 2011, Bascom Palmer arranged for its Vision Van (a 40-foot, custom-designed mobile eye clinic) to be transported to the region.

Using the Vision Van, Japanese ophthalmologists and health care workers were able to offer emergency



screenings and treatments to those people affected by the earthquake. The Vision Van was first used in 2005 after Hurricane Katrina hit Louisiana and Mississippi. It enabled Bascom Palmer’s doctors and technicians to provide much needed eye care to residents, volunteers and first responders.

Following the success of their experience using the Vision Van, a team of Japanese ophthalmologists has built a mobile clinic that has been used to help victims of natural disasters in Asia. The team is led by Kazuo Tsubota, M.D., chairman of ophthalmology at Keio University in Tokyo who also helped organize the Vision Van’s role after the Great Tohoku Tsunami. “We are now advising a medical group in Jordan that is interested in building a vehicle to help with the Syrian refugee crisis,” Lee said.

Advancing the delivery of care

With a worldwide alumni network of hundreds of ophthalmologists who have completed residencies and

fellowships at the Institute, Bascom Palmer faculty conduct collaborative scientific projects and clinical trials with their counterparts around the globe. By serving as an international catalyst, Bascom Palmer has led the way toward significant advancements in fields like glaucoma, retinal and corneal surgery, and diagnostic technology.

For example, Jean-Marie Parel, Ing.ETS-G, Ph.D., the Henri and Flore Lesieur Chair in Ophthalmology, and director of Bascom Palmer’s Ophthalmic Biophysics Center, spent more than two decades developing an innovative micro-drainage shunt to improve fluid drainage in glaucoma patients without inflaming nearby tissues. Prior to Food and Drug Administration approval in the United States, the Laser Center in the Dominican Republic collaborated with the Institute’s researchers in clinical trials, demonstrating almost complete success.

CURSO
Bascom Palmer’s CURSO is the largest meeting in the United States held for Spanish-speaking ophthalmologists. The course is presented with simultaneous English-Spanish translation. Held every year in Miami, CURSO attracts 750 ophthalmologists from 35 countries. Topics span the entire field of ophthalmology with particular attention given to the latest developments in cataracts, glaucoma, macular degeneration, eye cancers and oculoplastics.



Participants at Bascom Palmer’s 2015 Curso Interamericano de Oftalmologia Clinica (Curso)

For many years, Bascom Palmer has had the privilege of training many members of the same family. Brothers and sisters, parents and children, husbands and wives.
Meet Dr. Sara Grace, one special member in this select group.

One summer, as a student at the University of Oklahoma, I traveled to Nicaragua to volunteer for a non-government organization. I loved the people and the beauty of the country and always knew I would return. My father, Stephen Fransen, a Bascom Palmer alumnus (*Fellow 1990*), found a similar love when he and my mother, a nurse, visited Nicaragua several years later. They met an intelligent, caring and well-trained local ophthalmologist, Dr. Carlos Nuñez, who was limited in caring for the people of northern Nicaragua due to difficulty obtaining specialized ophthalmic equipment and training.

My parents founded Nica Eyes, an organization dedicated to treating eye disorders in northern Nicaragua, and have been working with Dr. Nuñez for five years. Nica Eyes brought the first retinal laser to the northern part of the country, and instructed Dr. Nuñez in the laser treatment of diabetic eye disease, as well as in the administration of anti-VEGF injections, two of the mainstays

in the treatment of diabetic retinopathy, one of the leading causes of blindness in that country. Dr. Nuñez also expressed his concern about the number of children with strabismus (misalignment of the eyes that can cause permanent vision loss) in northern Nicaragua, and he was interested

in receiving further training in the evaluation and treatment of children with this disorder.

I was thrilled when my father asked Dr. Kara Cavuoto, a Bascom Palmer pediatric ophthalmologist, and me to join him on a trip to Jinotega. We traveled two hours from the capital city of Managua, through beautiful green mountains and coffee plantations to arrive in Jinotega, which rests in a valley that is often obscured by low lying clouds in the cool mornings. The mountainous geography of northern Nicaragua makes it very difficult for its residents to receive medical care due to their physical isolation and lack of doctors in the region. The clinic's waiting room was overflowing with children waiting to see us. I felt overwhelmed until I saw that they were all smiling, even after hiking down from their far-away villages in the mountains. Some waited 12 hours to see us.

We performed surgery on many of the children. I was humbled by the way the operating room nurses let nothing go to waste - a disposable cautery that we would normally use once and discard, was carefully wrapped in sterile gloves and used repeatedly for more patients. I now receive weekly emails from Dr. Nuñez with pictures of "our" patients. Seeing their happiness and the improvement in their eyesight makes me eager to go back again - soon!

Sara F. Grace, M.D.

Editor's note: Having completed a residency at Bascom Palmer, Dr. Grace is now completing a fellowship in pediatric ophthalmology.

In 2007, Bascom Palmer introduced an international elective rotation in which residents spend two weeks providing eye care abroad. Through the years, Bascom Palmer's residents have traveled to locations within Africa, Asia, Central and South America, and Europe. "We have generous donors who provide support for our residents' international educational experience," said Gedde. "In many cases, they are supervised by Bascom Palmer alumni. When a resident has a terrific experience, he or she passes that enthusiasm along to our next class of residents."

For example, Michael Feilmeier, M.D., (*Resident, 2009*) now on the faculty at the University of Nebraska, traveled to Nepal for the Himalayan Cataract Project and went as a resident to Haiti prior to its earthquake. He is now involved in developing an ophthalmology program in Cap Hatien, Haiti - inspired by his train-

"I believe there is tremendous potential to positively impact patient care through education. Graduating residents and fellows can elevate the quality of patient care that is delivered in their local communities. As they educate other physicians, they participate in the global dissemination of scientific and clinical knowledge."

-Steven J. Gedde, M.D.

ing and experiences at Bascom Palmer as a resident. Thomas Shane, M.D., (*Resident, Fellow, Chief Resident 2011*) an ophthalmologist in Sarasota, assisted in rural communities in Belize and Haiti, and launched a research project on how used eyeglasses could be reused in rural communities.

Gedde adds that Bascom Palmer has a long history of providing medical education and training to Latin American physicians. In 1979, the Institute launched its annual Curso Interamericano de Oftalmologia Clinica (CURSO), providing thousands of Spanish-speaking physicians with the latest information on the diagnosis and treatment of vision diseases and disorders. To reach ophthalmologists throughout the hemisphere, courses are translated simultaneously into English and Spanish.

One of the CURSO highlights is the annual Francisco E. Fantes, M.D., Distinguished Lecture, named in memory of Bascom Palmer's beloved glaucoma specialist and longtime co-director of CURSO. A dedicated physician and educator, Fantes trained hundreds of Latin American physicians so they could treat patients in their native countries.

When training or consulting with physicians in the Americas, Middle East or other parts of the world, Bascom Palmer is committed to global leadership in medical education. As Gedde said, "I believe there is tremendous potential to positively impact patient care through education. Graduating residents and fellows can elevate the quality of patient care that is delivered in their local communities. As they educate other physicians, they participate in the global dissemination of scientific and clinical knowledge." ■

New Bascom Palmer Center Will Serve the Middle East

When Mohamed F. Abou Shousha, M.D., finished his medical training in Egypt, he applied for a Bascom Palmer fellowship in corneal and external diseases. "Bascom Palmer has an excellent global reputation in medical education and vision research," said Shousha, who completed his fellowship and joined the faculty in 2015 as assistant professor of clinical ophthalmology.

Now, he is looking forward to strengthening the Institute's ties with ophthalmologists throughout the Middle East and North Africa. This year, Bascom Palmer's faculty members presented a symposium at the Egyptian Ophthalmology Society's annual meeting in collaboration with the Afro-Asian Council of Ophthalmology.



"Bascom Palmer has trained many of the region's oculo-plastic subspecialists and helped them develop their own programs," said David T. Tse, M.D., the Dr. Nasser Ibrahim Al-Rashid Chair in Ophthalmic Plastic, Orbital Surgery and Oncology. "This incomparable training has helped change the dynamics of vision care in the region."

Building on those long-standing relationships, Bascom Palmer is building its first international eye center in Abu Dhabi, United Arab Emirates (UAE). Scheduled to open in 2017, the 113,000-square-foot facility will house 40 eye examination rooms and an ambulatory surgery center.

"Our goal is to introduce the culture of Bascom Palmer to the region, including our focus on excellence in clinical care," says Tse, noting that the UAE does not now have a residency program in ophthalmology. "We will have a clinical presence and incorporate a residency training program, followed by a future research program."

The \$55 million Bascom Palmer project is being funded by His Excellency Dr. Abdulrahim Jaffar Al Zarouni and Suhail Jaffar Al Zarouni through their organization, SOZA Group, in partnership with August Medical. This unique collaboration is the first time that the University of Miami Miller School of Medicine will be permanently stationing full-time, academic physicians outside of the United States.

Training medical professionals

As part of its excellent training program, Bascom Palmer provides young ophthalmologists the opportunity to provide eye care in underserved areas. Locally, University of Miami medical students, along with Bascom Palmer's residents and fellows, travel to health fairs to provide vision screening exams to underserved communities throughout South Florida. "Health fairs provide a unique opportunity for our students, residents, fellows and faculty to interact while serving the community," said Steven J. Gedde, M.D., the John G. Clarkson Chair in Medical Education. The Vision Van, supported by generous donors including the Josephine S. Leiser Foundation, The Salah Foundation and Canon U.S.A., Inc., also visits communities within South Florida providing free screenings to those without access to eye care.



Clinical Trials Offer New Hope for Treating Dry AMD

Three years ago, John McNamara, 73, was diagnosed with age-related macular degeneration (AMD), the most common cause of blindness in older adults in the United States. Fortunately, he qualified for a clinical trial at Bascom Palmer Eye Institute led by Philip J. Rosenfeld, M.D., Ph.D., professor of ophthalmology and one of the world's leading experts on this blinding disease.

A Bascom Palmer surgical team, led by Ninel Z. Gregori, M.D., implanted embryonic stem cells into McNamara's left eye. "Since then, my macular degeneration has not progressed at all," said McNamara, a patient living in Plantation, Florida. "I'm now in a follow-up program so Dr. Rosenfeld and his team can keep track of my condition." McNamara's experience is particularly significant since he has the underlying "dry" form of AMD, rather than the more aggressive "wet" form. Although the dry form of AMD can convert to the wet form, which causes faster vision loss compared to the dry form, it only happens about 20 percent of the time. Most patients with dry AMD stay as dry AMD, but they lose their vision slowly over years rather than weeks, as with wet AMD. "Today, we have excellent treatments for wet AMD," said Rosenfeld, whose research has resulted in several important breakthroughs. "With our treatments for wet AMD, we can convert the wet AMD back to dry AMD; however, our patients with dry AMD still go on to lose a significant amount of vision from the dry AMD and become legally blind."

AMD typically causes the loss of central vision in both eyes, and usually affects people age 50 and above. Patients with AMD find it hard to see in dim light situations, and have difficulty driving. The symptoms of AMD can often resemble cataracts, and some patients may have both conditions.

Another patient, Marguerite Kushner, 90, came to Bascom Palmer for cataract surgery by William Culbertson, M.D., the Lou Higgins Chair

in Ophthalmology. "The surgery went fine, but afterwards I still wasn't seeing things very well," Kushner said. "Dr. Culbertson referred me to Dr. Rosenfeld, who found I had the dry form of AMD. Since then, I've taken part in three research studies. My mother had AMD, too, and I don't want my children or grandchildren to suffer from this disease."

Powerful therapies for wet AMD

In the early to mid 2000s, Rosenfeld discovered that injections of the cancer-fighting drug Avastin®, the brand name for Genentech's drug bevacizumab, halted wet AMD and actually improved vision. He was also the lead investigator in the clinical trials leading to the approval of Lucentis®, the brand name for ranibizumab, also developed by Genentech.

Since then, Rosenfeld has continued to study new medications as well as strategies for improving treatments for wet AMD and dry AMD. "Right now, patients with wet AMD typically require frequent injections for several years," he said. "We would like to reduce that burden on individuals by being able to tailor treatment more precisely."

Using Bascom Palmer's advanced optical coherence tomography (OCT) instruments to image the retina and its blood flow, Rosenfeld can see how well an AMD patient is responding to medical treatments. "Some patients do not need injections as frequently as others, depending on their individual conditions," he said.

At the 2015 annual meeting of the Association for Research in Vision and Ophthalmology, Rosenfeld presented preliminary findings from a Phase 1 safety study of X-82, an oral medication by Tyrogenex, a biopharmaceutical company in Palm Beach, Florida. X-82 is a dual inhibitor of vascular endothelial growth factor and platelet-derived growth factor in development for treatment of wet AMD.

"Data from this study showed that the oral therapy X-82 may offer a strategy for non-invasive delivery of the necessary therapy to the eyes of patients with wet AMD without needing an injection," said Rosenfeld, noting that Bascom Palmer has been enrolling patients in a Phase 2 "APEX" trial of the drug. "An oral therapy is particularly useful for treating both eyes with a pill once a day. We look forward to further studies of this orally administered alternative."

New trials for AMD

While advancing medical understanding of wet AMD, Rosenfeld has also been researching the genetic and metabolic factors that lead to the progressive loss of vision from dry AMD. A current Phase 2 clinical trial that is fully enrolled and should produce results in mid-2016 is a study sponsored by Acucela, a biotechnology company that investigates a visual cycle modulator known as emixustat hydrochloride.

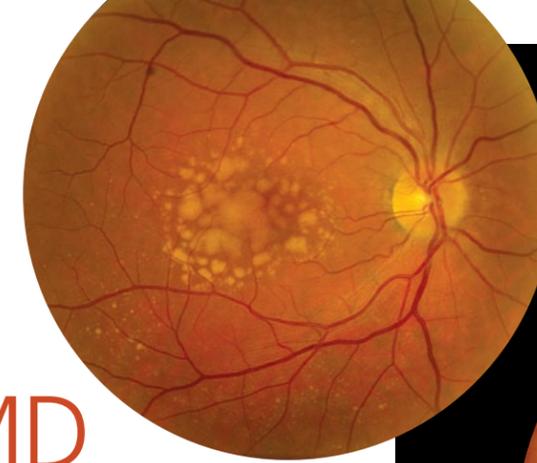
"Emixustat is a once-a-day pill that slows the metabolic pathways in the retina, which should put the AMD disease process into hibernation and slow or stop disease progression," Rosenfeld said. "Since AMD is a disease that's always in both eyes, the idea of a pill once-a-day to treat both eyes is particularly attractive."

Another study that is fully enrolled and should produce results by mid-2016 is a trial investigating

To schedule an appointment with a Bascom Palmer specialist, please call 1-888-845-0002 or visit bascompalmer.org.

(left) Right eye of a patient with intermediate dry AMD and large soft drusen in the macula

(below) Left eye of a patient with late dry AMD where the drusen have degenerated into geographic atrophy and loss of central vision



Dr. Philip J. Rosenfeld

an intravenous inhibitor of beta-amyloid for dry AMD. This drug, which inhibits the same beta-amyloid protein that is implicated as a cause of Alzheimer's disease, is being studied in dry AMD by the pharmaceutical company GlaxoSmithKline. "Hopefully, one of these drugs will prove successful, but we can't wait for the results of these studies before beginning new clinical studies to test other promising strategies for stopping this disease. Since dry AMD progresses more slowly than wet AMD, we need to run these dry AMD studies for at least a year before we know if a treatment works. That's why we need to try different strategies at the same time to prevent blindness from AMD and hopefully one or more will succeed," Rosenfeld emphasized.

He is also enrolling patients in clinical trials of medications that inhibit complement, a component of the immune system. "We know from genetic studies that complement activation plays a very important role in causing AMD, and by inhibiting complement activation, we hope to slow or stop the progression of this blinding disorder." One complement inhibitor being investigated is Lampalizumab®, developed by Genentech/Roche, and this drug is injected into the eye either every four weeks or every six weeks. "This complement inhibitor is the first drug for dry AMD that has shown promise in Phase 2 clinical trials," he said. "It's given us real hope that a treatment could preserve vision in patients with dry AMD." In addition, another drug known as APL-2, which is also a complement inhibitor from Apellis Pharmaceuticals, is currently being tested in patients with dry AMD, and this study is enrolling now as well.

WHAT ARE THE RISK FACTORS FOR MACULAR DEGENERATION?

- Age – Being 60 years of age and older
- Race – Whites are much more likely to lose vision from AMD than Blacks
- Gender – Women tend to be at greater risk for AMD than men
- Family history of AMD Smoking may increase the risk of AMD
- Obesity – Research studies suggest a link between obesity and the progression of early and intermediate stage AMD to advanced AMD

WHAT ARE THE SYMPTOMS OF MACULAR DEGENERATION?

- Words appear blurry while reading, requiring greater illumination to see details
- Inability to recognize faces at a distance
- Blurred or blind spot in the center of vision
- Straight lines appear wavy or crooked
- Rapid loss of central vision



Vision with age-related macular degeneration



Normal vision

If you experience blurred or distorted central vision, you should visit your ophthalmologist immediately. To schedule an appointment with a macular degeneration specialist, please call 1-888-845-0002.

“Generally, there is a long lead time between noticing a loss of vision due to dry AMD and having an impact on one’s quality of life,” added Rosenfeld. “Patients can take some common-sense steps to slow that progression, such as exercising regularly, taking AREDS 2 vitamins and eating a healthy diet that’s rich in green leafy vegetables. If you smoke, you should stop immediately, because that makes your condition worse. It’s like throwing gasoline on a fire.”

To find better treatments for both dry and wet AMD, Rosenfeld and other Bascom Palmer ophthalmologists are studying new medications and stem cell therapies. “Usually, for wet AMD, we start patients on the established therapies, and then move on to the experimental treatments if the vision continues to deteriorate or the treatment burden becomes onerous,” he said. “For dry AMD patients, there is no treatment besides vitamins and green leafy vegetables, so this population has so much to gain if a new treatment can be found.”

Peter Mosheim, 86, has been going to Bascom Palmer for nearly 50 years, including nearly two decades of treatment for dry AMD. “I’m proud to say I’ve been Dr. Rosenfeld’s guinea pig for several clinical studies,” he said. “While there haven’t been any miracles, I can still see pretty well.”

Offering varied clinical trials

Today, qualifying AMD patients can be enrolled in clinical trials at Bascom Palmer’s eye centers in Miami and Palm Beach Gardens. Typically, two-thirds of patients in the trial will receive the real treatment, while one-third receive a placebo. As Rosenfeld says, “If I were a patient with dry AMD, I would like those odds – given the fact that if a patient doesn’t participate, they’ll never get any treatment, and currently we do not have any therapies that slow down the vision loss in dry AMD.” ■

What is a Clinical Study?

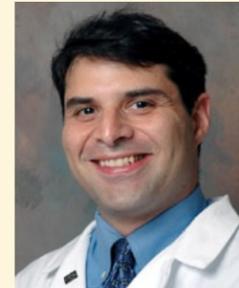
A clinical study involves research using human volunteers (also called participants) that is intended to add to medical knowledge. There are two main types of clinical studies: (1) clinical trials (also called interventional studies) and (2) observational studies.

Clinical trials apply the scientific method to human health. In observational studies, individuals are observed and their outcomes are measured by the investigators. In these studies the research subjects are assigned by the investigator to a treatment or other intervention, and their outcomes are measured.

Almost 40 clinical trials, clinical outcomes and epidemiology studies are ongoing at Bascom Palmer Eye Institute, and most are national multicenter projects. These studies are funded by the National Eye Institute (NEI), private foundations and commercial organizations.

Ongoing studies at Bascom Palmer Eye Institute include studies on cataracts, corneal and external diseases, diabetic retinopathy, glaucoma, LASIK and laser vision correction, Leber’s hereditary optic neuropathy, macular degeneration, macular telangiectasia, neuro-ophthalmology, strabismus and pediatric ophthalmology, and uveitis.

For more information about Bascom Palmer’s ongoing clinical trials, visit Bascompalmer.org or clinicaltrials.gov.



Thomas Albini, M.D., is enrolling patients for a randomized, masked multicenter study to assess the safety and efficacy of CLS-TA, triamcinolone acetonide injectable suspension, in the treatment of subjects with macular edema following uveitis.



Jorge Fortun M.D., is the principal investigator of a two-year, randomized, double-masked, multicenter, three-arm study comparing the efficacy and safety of RTH258 versus Aflibercept in subjects with neovascular age-related macular degeneration.



Arindel S. Maharaj, M.D., Ph.D., is the principal investigator of a study comparing ocular perfusion pressure and retinal blood flow in glaucomatous eyes with and without optic disc hemorrhage.



Zohar Yehoshua, M.D., M.H.A., is the principal investigator for a randomized, double-masked, dose-ranging multicenter study comparing ACU-4429 with placebo in patients with age-related macular degeneration.

Clinical Trials

In a clinical trial, participants receive specific interventions according to the research plan or protocol created by the investigators. These interventions may be medical products, such as drugs or devices; procedures; or changes to participants’ behavior, such as diet. Clinical trials may compare a new medical approach to a standard one that is already available, to a placebo that contains no active ingredients, or to no intervention. Some clinical trials compare interventions that are already available to each other. When a new product or approach is being studied, it is not usually known whether it will be helpful, harmful, or no different than available alternatives (including no intervention). The investigators try to determine the safety and efficacy of the intervention by measuring certain outcomes in the participants.

Who Conducts Clinical Studies?

Every clinical study is led by a principal investigator, who is often a medical doctor. Clinical studies also have a research team that may include doctors, nurses, social workers and other health care professionals.

Clinical studies can be sponsored, or funded, by pharmaceutical companies, academic medical centers, voluntary groups, and other organizations, in addition to Federal agencies, such as the National Institutes of Health, the U.S. Department of Defense, and the U.S. Department of Veterans Affairs. Doctors, other health care providers, and other individuals can also sponsor clinical research.

Clinical trials used in drug development are sometimes described by phase. These phases are defined by the Food and Drug Administration (FDA):

- Phase 0: Exploratory study involving very limited human exposure to the drug, with no therapeutic or diagnostic goals.
- Phase 1: Studies that are usually conducted with healthy volunteers and that emphasize safety. The goal is to find out what the drug’s most frequent and serious adverse events are, and how the drug is metabolized and excreted.
- Phase 2: Studies that gather preliminary data on effectiveness (whether the drug works in people who have a certain disease or condition). For example, participants receiving the drug may be compared to similar participants receiving a different treatment, usually an inactive substance, called a placebo, or a different drug. Safety continues to be evaluated, and short-term adverse events are studied.
- Phase 3: Studies that gather more information about safety and effectiveness by studying different populations and different dosages, and by using the drug in combination with other drugs.
- Phase 4: Studies occurring after the FDA has approved a drug for marketing. These studies gather information about a drug’s safety, efficacy or optimal use.

Courtesy of clinicaltrials.gov

Clinical Breakthrough in Hereditary Eye Disease

Two years ago, Mathew Pray began losing his vision due to a rare genetic condition called Leber hereditary optic neuropathy (LHON). “My eyesight quickly got worse and in six months, I couldn’t drive or read a computer screen,”

said Pray, who was living in Maine with his pregnant wife, Jennifer, and daughter, Charlotte. “It was a very scary time for us.”

Fortunately, the Prays learned about an upcoming clinical trial for an investigational gene therapy for LHON under the direction of John Guy, M.D., the Rogers Research Chair in Ophthalmology.

The Prays moved to Largo, Florida, near his mother’s home, and Jennifer got a job as a school guidance counselor so Mathew could enroll in the clinical trial. In April 2015, Pray received one injection of a specially designed virus carrying normal DNA to complement the defective gene (DNA) causing LHON.

“I noticed a big difference in my ability to see color and contrast right away, and my vision continues to improve,” said Pray. “For my

six-month appointment with Dr. Guy, I was able to fly from Tampa by myself, take a cab to Bascom Palmer, and return home. Now, I can see large type on my computer and talk on the phone, while feeding our 5-month-old son, Carter. It is truly a miracle.”

Pray was one of five legally blind patients who participated in the groundbreaking Bascom Palmer clinical trial. The studies preliminary results were published recently in *Ophthalmology*, the American Academy of Ophthalmology’s journal.

“Visual acuity improved or remained stable in all five participants,” said Guy, who has been studying LHON for more than 15 years. “No one lost vision and no serious adverse events were observed. We will continue to explore this highly promising line of therapy.”

Bascom Palmer scientist and biostatistician William J. Feuer, M.S., was the lead author of the study, “Gene Therapy for Leber Hereditary Optic Neuropathy,” whose

co-authors were Guy, Joyce C. Schiffman, M.S.; Janet L. Davis, M.D., M.A.; Vittorio Porciatti, D.Sc.; Phillip Gonzalez, CCRP; Rajeshwari D. Koilkonda, Ph.D.; Huijun Yuan, Ph.D.; Anil Lalwani, M.S.; and Byron L. Lam, M.D.

The trial, which is supported by the National Eye Institute (NEI), involved LHON patients with chronic vision loss in both eyes, recent-onset vision loss in both eyes, or recent-onset vision loss in one eye but no signs of abnormal vision in the other eye.

Repairing a genetic mutation

Leber hereditary optic neuropathy is typically caused by a mutation that impairs a mitochondrial gene called ND4. That mutation leads to the loss of the retinal

ganglion cells, which carry visual signals through the optic nerve to the brain. It typically occurs in young adults in their teens, 20s and 30s, damaging central vision. Early symptoms include blurry vision. Eyesight tends to worsen over time, eventually leading to a severe loss of acuity and color vision.

That was the case for Julie Tozzo, a New Jersey car dealer who was able to enroll in Guy’s clinical study soon after she began losing her vision. In 2014, she was diagnosed with LHON at Brigham & Women’s Hospital in Boston. “My cousin, Karen Fulchini, in Vero Beach, Florida, heard about Dr. Guy’s study, and I called him right away,” Tozzo said. “I joined the trial after it started, and my vision has improved by at least 30 percent.”



John Guy, M.D., Awarded Research Chair

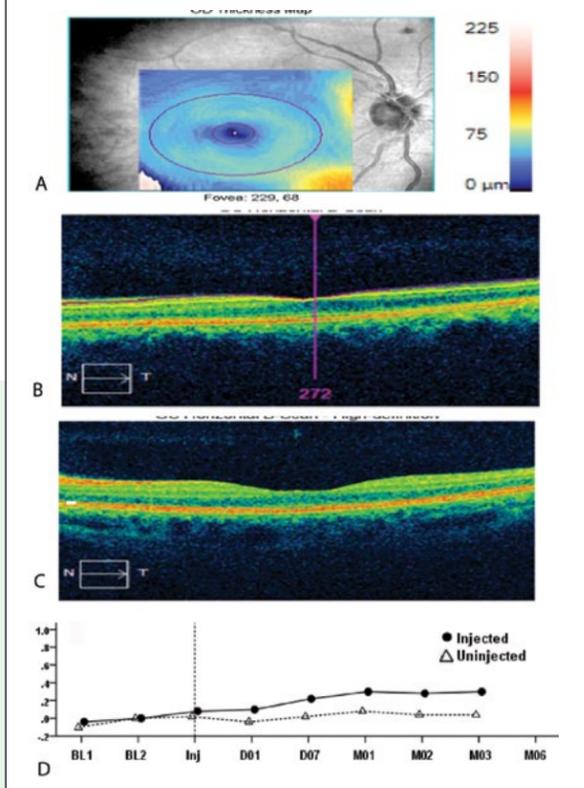
John Guy, M.D., one of the world’s leading experts in the field of neuro-ophthalmology, has been awarded the Rodgers Research Chair in Ophthalmology. Guy is known his research and pioneering gene therapy techniques for Leber hereditary optic neuropathy, as well as his research in optic neuritis, multiple sclerosis and diseases caused by mutations in mitochondrial DNA.

Guy received a bachelor of arts degree from New York University, and was awarded a doctor of medicine degree from 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 neuro-ophthalmology fellowship at Wills Eye Hospital in Philadelphia and an orbital surgery observership at Moorfields Eye Hospital in London, England. He has three grants from the National Eye Institute of the National Institutes of Health, including a recently awarded \$6 million U10 grant, and has published more than 100 articles.

This endowed chair memorializes the generosity of Charlotte Breyer Rodgers, a South Florida philanthropist who committed more than \$5 million to Bascom Palmer for vision research. Rodgers also created a garden, fondly known as “The Breyer Patch,” that joins Bascom Palmer’s Anne Bates Leach Eye Hospital with its adjacent Evelyn F. and William L. McKnight Vision Research Center.



OCT thickness map of the macula shows marked thinning of the retinal ganglion cell layer (A) derived from OCT cross-sectional images of the macula (B) of patient 5 relative to an asymptomatic LHON patient (C). A plot of improvement of visual acuity (x axis in logMAR) shows an increase of 0.3 logMAR in the eye injected with the gene therapy study drug (D). A logMAR change of 0.1 is equivalent to 1 line (or 5 letters) on the ETDRS eye chart. BL1= first baseline visit, BL2= second baseline visit, Inj= injection day, D01= first day after injection, D07= 7 days after injection, MO1= 1 month after injection, MO2= 2 months after injection, MO3= 3 months after injection.



Today, Tozzo can watch TV and read magnified words and numbers on her computer screen. “My optic nerves are still healthy, and I have to believe it was the injection. I feel very grateful to the Bascom Palmer team, especially Phillip Gonzalez (the clinical research coordinator), for making all of us in the trial feel like members of the family. It was a blessing that we found Dr. Guy. He is truly my hero.”

A long path to developing a therapy

In order to develop a mitochondrial gene therapy for the clinical trial of LHON, the team of Bascom Palmer scientists and clinicians had to package the normal human ND4 gene into a virus that would carry the new DNA material into the cells of the retina. That was a difficult challenge because mitochondria, which convert nutrients and oxygen into cellular energy, have their own DNA, and it is the mutations within the mitochondrial DNA (mtDNA) that lead to LHON, as well as other diseases.

Guy began to research a possible gene therapy approach for delivering a substitute copy of the gene into mitochondria about 15 years ago. Although viruses are the preferred vessel for delivering new DNA, they are not designed to penetrate the mitochondria.

To fix that, Guy and his team took advantage of the fact that mitochondria import cellular proteins that they cannot make themselves. By attaching a bit of one such protein to the outer shell of a virus - called an adeno-associated virus - he effectively gave the virus a homing signal and entry code into mitochondria.

“Until now, there was no efficient way to get DNA into mitochondria,” said Guy, whose unprecedented success in creating a mouse model for his investigational gene therapy was described recently in the *Proceedings of the National Academy of Sciences*.

“This study marks an important contribution to research on LHON, and in efforts toward an effective therapy,” said Maryann Redford, D.D.S, M.P.H., a program director in collaborative clinical research at the National Eye Institute, an arm of the National Institutes of Health that helped fund the study. “The implications are even broader because the approaches that the investigators used could aid therapy development for a vast array of other mitochondrial diseases,” she added.

Guy and researchers confirmed the presence of the virally encoded ND4 mutation for LHON by examining the eyes of mice for a red fluorescent marker. Over time, the mice showed a loss of retinal ganglion cells, shrinkage of the optic nerve, and a decline in visual responses, as determined by an electroretinogram, an electrical recording from the retina.

Next, Guy packaged the normal human ND4 gene into the adeno-associated virus. That combination, when injected into the eye, led to improved visual function in the LHON mouse model without causing any adverse effects on vision.

Now we’ve shown that we can improve visual function in mice after it had been lost,” said Guy. “The preliminary results of our clinical trial in LHON patients are promising, and we hope this new approach will prove effective in treating this genetic eye disease.” ■

New Genetic Clues to Age-Related Macular Degeneration

Researchers from Bascom Palmer and the University of Miami’s John P. Hussman Institute for Human Genomics are part of a consortium that have significantly expanded the number of genetic factors known to play a role in age-related macular degeneration (AMD), a leading cause of vision loss among people age 50 and older. Supported by the National Eye Institute, part of the National Institutes of Health, the findings may help improve our understanding of the biological processes that lead to AMD, and help in identifying new therapeutic targets for potential drug development.

AMD is a progressive disease that causes the death of the retinal photoreceptors, the light-sensitive cells at the back of the eye. The most severe damage occurs in the macula, a small area of the retina that is needed for sharp, central vision necessary for reading, driving and other daily tasks. There are currently no Food and Drug Administration-approved treatments for the more common form of advanced AMD, called geographic atrophy or “dry” AMD. While therapies for the other advanced form, neovascular or “wet” AMD, can successfully halt the growth of abnormal, leaky blood vessels in the eye, the therapies do not cure the condition, nor do they work for everyone.

Up to this point, researchers had identified 21 regions of the genome - called loci - that influence the risk of AMD. The new research, recently published online in *Nature Genetics*, raises the number of loci to 34. Jaclyn L. Kovach, M.D., associate professor of clinical ophthalmology, and Stephen G. Schwartz, M.D., M.B.A., associate professor of ophthalmology and medical director at Bascom Palmer Eye Institute at Naples, were the lead ophthalmologists for Bascom Palmer. The Miller School’s Margaret A. Pericak-Vance, Ph.D., the

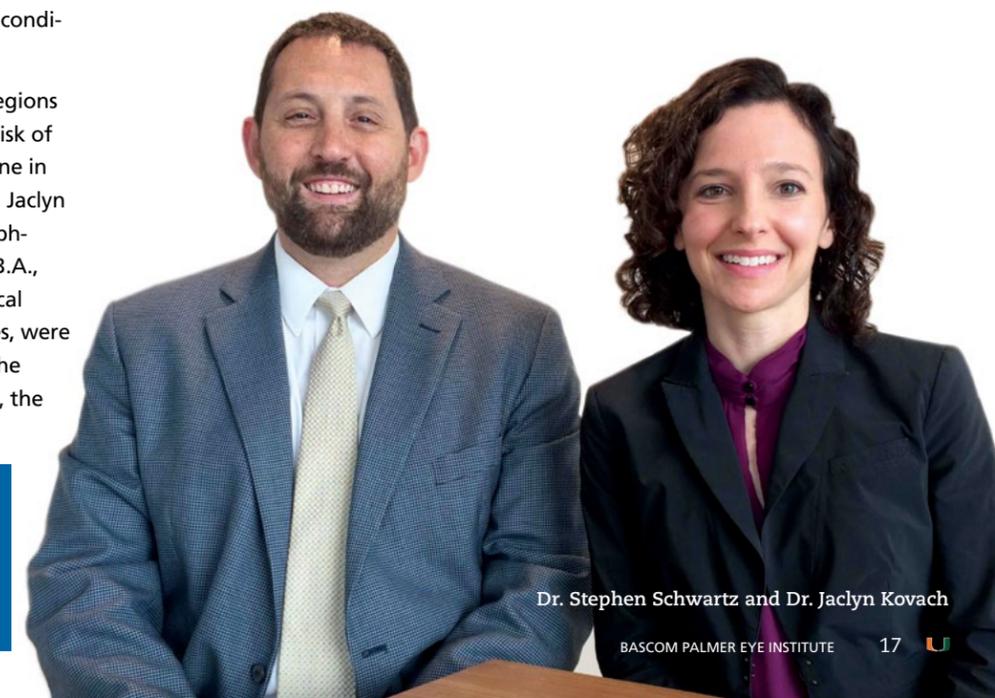
Dr. John T. Macdonald Foundation Professor of Human Genomics and director of the John P. Hussman Institute for Human Genomics, and William K. Scott, Ph.D., professor and vice chair for education and training at the Dr. John T. Macdonald Foundation Department of Human Genetics and the John P. Hussman Institute for Human Genomics, were two of the senior authors on the study.

The International AMD Genomics Consortium, which includes 26 centers worldwide, collected and analyzed the genetic data from 43,566 people of predominantly European ancestry to systematically identify common and rare variations in genetic coding - called variants - associated with AMD.

For the first time the researchers identified a variant specific to the neovascular form of AMD, which may point to reasons why therapy for this form of AMD is effective for some people, but not everyone. “This pivotal paper lays the groundwork for future sight-saving treatments using genetic based therapies for age-related macular degeneration,” said Kovach. ■

“This pivotal paper lays the groundwork for future sight-saving treatments using genetic based therapies for age-related macular degeneration.”

— Jaclyn L. Kovach, M.D.



Dr. Stephen Schwartz and Dr. Jaclyn Kovach

To schedule an appointment with a Bascom Palmer specialist, please call 1-888-845-0002 or visit bascompalmer.org.

Pioneering Gene Therapy Targets Rare Cause of Blindness

“We are extremely excited and optimistic about the success of this gene therapy trial.”

– Byron L. Lam, M.D.

A Bascom Palmer research team led by Byron L. Lam, M.D., has performed gene therapy on six patients as part of a Phase 2 clinical trial to treat Choroideremia (CHM), a rare inherited cause of blindness. A promising treatment for CHM had been elusive until the advent of gene therapy. The transfer of new genes into the dysfunctional cells has the potential to restore the health and function of these cells.

CHM is a progressive degenerative disorder of the retina and the choroid layers that line the inside of the back portion of the eye. CHM is caused by a genetic defect of the X chromosome that results in a faulty protein in the retina. Symptoms of CHM begin with a gradual loss of night and peripheral vision. Over time, CHM leads to complete loss of central sight. CHM affects one in 50,000 people, and the vast majority of affected CHM persons are young men.

The approach used in this clinical trial was to use a large number of harmless viruses (AAV2-REP1) modified to carry copies of the normal gene into the eye to correct the genetic defect in CHM. The gene therapy



Retina damaged by Choroideremia



Dr. Byron L. Lam

was delivered to the space under the retina through an injection technique approved by the FDA for research purposes for this clinical trial. The injection provides controlled delivery of the gene therapy. The modified viruses infect retinal cells and carry copies of the normal gene into the cells where the normal gene continues to work to maintain the function and integrity of the cells. The goal of the treatment is to maintain or even improve visual function in CHM patients.

“We are extremely excited and optimistic about the success of this gene therapy trial,” said Lam. “We hope the knowledge gained will help patients with other retinal diseases.” Lam added that this clinical trial was self-funded by Bascom Palmer and donors interested in retinal research.

Retinal surgeons Janet L. Davis, M.D., M.A., and Ninel Gregori, M.D., performed the highly specialized surgery at Bascom Palmer. The surgery involved injecting a full dose of the vector under a very thin retina. The technique, which is challenging, was done successfully without damaging the retina.

The gene therapy viral vector, known as AAV2-REP1, was provided by NightstaRx, a private biopharmaceutical company focused on the development of gene therapy for CHM.

Lam, the Robert Z. and Nancy J. Greene Chair in Ophthalmology, has a broad background in neuro-ophthalmology and hereditary retinal degenerations. He is Bascom Palmer’s medical director of neuro-ophthalmology and scientific co-director of the Adrienne Arsht Hope for Vision Retinal Degeneration Laboratory. ■

Imaging Breakthrough Expected to Improve Diagnosis for Patients with Retinal Conditions

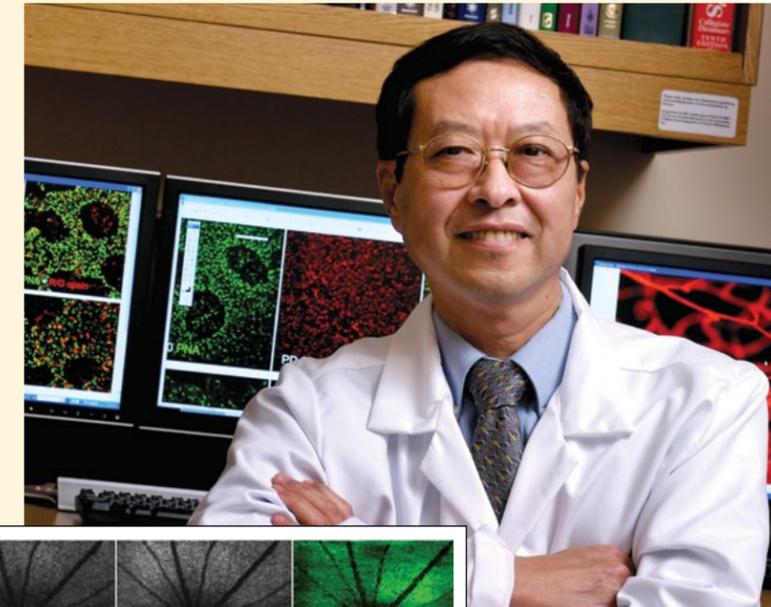
A collaborative Bascom Palmer Eye Institute and Florida International University (FIU) biomedical engineering team has developed a breakthrough retinal imaging technology that could help clinicians diagnose and assess the extent of vision loss in patients with a wide range of conditions.

After three years of work, the Bascom Palmer and FIU researchers successfully tested the first visible-light optical coherence tomography (VIS-OCT) technology for imaging rhodopsin, the light-sensing molecule contained in the retinal photoreceptors that convert light signals to neuronal signals sent to the brain.

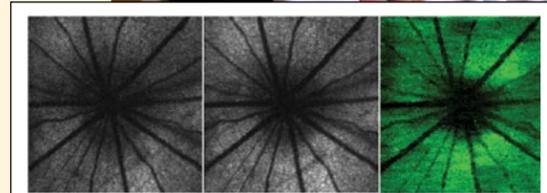
Shuliang Jiao, Ph.D., associate professor in the department of biomedical engineering at FIU and a Bascom Palmer alumnus, led the project. He designed and built the first VIS-OCT capable of imaging rhodopsin, and is the senior author of an article describing the novel VIS-OCT technology, “Depth-resolved rhodopsin molecular contrast imaging for functional assessment of photoreceptors,” published recently in *Scientific Reports*. The research was supported by grants from the National Institutes of Health.

Bascom Palmer’s co-authors were Rong Wen, M.D., Ph.D., Byron L. Lam M.D., and Carmen A. Puliafito, M.D., M.B.A., former Bascom Palmer chair. Puliafito was one of the pioneers in the development of OCT, which allows ophthalmologists to map and measure the layers of the retina.

“OCT has been used extensively in ophthalmology clinics,” said Jiao. “Our work shows the new technology can be used to construct an accurate map showing the distribution of rhodopsin – a functional biomarker of the rod photoreceptors in the retina. We now are working on making this imaging equipment more patient-friendly to move it into the clinical setting.”



Dr. Rong Wen



To visualize rhodopsin by the VIS-OCT, a rat retina was imaged in the dark-adapted stage (left panel) and then in the light-adapted stage (middle panel). Rhodopsin distribution was calculated by the differential image of the two shown in the right panel. The images were processed with a novel speckle redistribution algorithm. *Images courtesy of Dr. Jiao.*

“This technology can be used to monitor disease progression for retinitis pigmentosa, age-related macular degeneration, and

other retinal diseases,” said Lam, a physician-scientist who specializes in photoreceptor degeneration. “It can also be used to objectively measure the outcomes for treatments and clinical trials of new therapies.”

Wen, a photoreceptor cell biologist, believes the VIS-OCT technology will also be useful to study future photoreceptor regeneration, including transplant stem cell-derived photoreceptors, gene therapies, neuroprotection therapies using neurotrophic factors and other neuroprotective agents.

“The rapid development in regenerative medicine to restore vision has raised a hope that regeneration of photoreceptors and restoration of photoreceptor function will become a reality in the near future,” he said. ■



Dr. Victor Curtin and Dr. Edward Norton, circa 1960



Dr. Victor Curtin established the first eye bank in the Southeast United States in 1972.



Dr. Victor Curtin, Dr. Eduardo Alfonso and Dr. Edward Norton

“Known for his honesty and integrity, Dr. Curtin always led by example. I, and all of my colleagues, will forever be indebted to him not only for the opportunity to train with him, but also for his warmth and good judgment.”

– Eduardo C. Alfonso, M.D.

Victor Curtin, One of World’s Most Esteemed Ophthalmologists, Dies



Victor T. Curtin, M.D., professor emeritus of ophthalmology at Bascom Palmer, passed away Wednesday, March 9, in Miami, Florida. Admired throughout the world, Curtin was the first faculty member recruited to Bascom Palmer, where he served on its faculty for 57 years.

The son of Dr. and Mrs. Victor A. Curtin, Curtin was born in Lawrence, Massachusetts in 1925. A graduate of the Phillips Academy Andover, Curtin received an undergraduate degree from Harvard College and was then stationed in Japan with the United States Army Medical Corps. Following his service, he received dental and medical degrees from Harvard Medical School. He interned at the San Francisco County Hospital, and in 1958 completed a residency in ophthalmology at Cornell University Medical College, where he met Edward W. D. Norton, M.D., and developed an interest in retinal diseases and ophthalmic pathology. Following a fellowship in ocular pathology and retinal disease at Massachusetts Eye and Ear Infirmary, and a fellowship in ophthalmic pathology at the National Institute of Health and the Armed Forces Institute of Pathology, in 1959 he became the

first faculty member to be recruited by Norton, who was the chief of the University of Miami School of Medicine’s new division of ophthalmology. Together, Curtin and Norton would transform that small division into the world-renowned Bascom Palmer Eye Institute.

“From the first moment I met Dr. Curtin in 1979 during my interview for Bascom Palmer’s residency program, he became a role model and mentor,” said Eduardo C. Alfonso, M.D., chairman of Bascom Palmer. “Known for his honesty and integrity, Dr. Curtin always led by example. I, and all of my colleagues, will forever be indebted to him not only for the opportunity to train with him, but also for his warmth and good judgment.”

“Dr. Curtin was the consummate teacher, physician and clinician-scientist. He was always at Dr. Norton’s side providing sage advice for every important decision,” said John G. Clarkson, M.D., executive director of the American Board of Ophthalmology, and former chair of Bascom Palmer. “No one cared more for the Bascom Palmer residents, fellows and staff, nor did more to help all succeed. He will be sorely missed and cannot be replaced.”

Curtin recognized that both corneal transplantation and ophthalmic pathology, the understanding of ophthalmic disease at the tissue level, would be integral to patient care as well as to the proper education

of training ophthalmologists. In partnership with the Lions Clubs of South Florida, he established the Florida Lions Eye Bank and Ocular Pathology Laboratory at Bascom Palmer in 1962 and guided its growth for nearly 40 years. Today, the eye bank provides corneal tissue for transplantation throughout Central and South Florida, while the pathology laboratory is one of less than 10 specialty-specific eye pathology laboratories in the United States.

An outstanding educator, Curtin was dedicated to teaching the next generation of ophthalmologists. As director of Bascom Palmer’s residency program and chairman of the resident and fellow selection committee from 1959-1996, he interviewed and attracted more than 900 of the brightest young physicians entering the field of ophthalmology.

In 1986, the University of Miami School of Medicine established the Victor T. Curtin Chair in Ophthalmology. Curtin was the inaugural recipient of the chair that supports research in experimental ocular pathology. The chair is now held by Sander R. Dubovy, M.D., medical director of the eye bank and director of the ocular pathology laboratory. “Dr. Curtin’s foresight in establishing the eye bank and pathology laboratory has been instrumental in enhancing patient care, understanding ophthalmic disease through

clinicopathologic correlation, funding research, and serving as the cornerstone of the educational program at Bascom Palmer Eye Institute. Espousing hard work, humility and dedication, Dr. Curtin embodied the concept of putting institution above self. His legacy includes over 150,000 patients who have benefited from the corneal transplantation and diagnostic ophthalmic pathology services provided by the Florida Lions Eye Bank,” said Dubovy.

Curtin is survived by his beloved wife of 63 years, Mary Lou, and four children: Paul Curtin, New York City; Jane Curtin, Croton-on-Hudson, N.Y.; Gail Curtin, Miami, Fla.; and Joy Curtin Tompkins, Fort Lauderdale, Fla. He is predeceased by his daughter, Anne, and his sister, Jane Curtin Halko.

Memorial services will be held June 17, 2016, during Bascom Palmer’s annual Residents’ Days. ■

Donations may be made to the Bascom Palmer Eye Institute for the Dr. Victor T. Curtin Endowed Speakers Series, or to the Florida Lions Eye Bank, Bascom Palmer Eye Institute, 900 NW 17 Street, Miami, FL 33136.



Ophthalmology Education Expands

Bascom Palmer's tradition of excellence has earned worldwide recognition for outstanding research and patient care. In particular, the Institute works for the global advancement of ophthalmology through medical education. *Ophthalmology Times*, an industry periodical for and by ophthalmologists, continually ranked Bascom Palmer's residency program the best in the nation.

In addition to the Institute's extensive offerings of continuing medical education courses for practicing ophthalmologists, accredited residency, fellowship and observership programs, and weekly "Grand Rounds" where unique medical cases are discussed, Bascom Palmer recently announced a unique graduate degree - **Master of Science in Vision Science and Investigative Ophthalmology (MVSIO)**.

"Bascom Palmer's new master of science degree confirms the Institute's role as the world leader in ophthalmology education."

- Sanjoy Bhattacharya, M. Tech., Ph.D.

This innovative program, the first of its kind in the world, offers comprehensive training in ophthalmic translational research, problem-based learning, management, and a skill set available only at Bascom Palmer.

The MVSIO program focuses on science and laboratory research, including the disciplines of electrophysiology, biochemistry and molecular biology, as well as exposure to ocular clinical details and ocular pathology. It will prepare students to further their careers in vision science and investigative ophthalmology.

By training graduate students in research, research management skills and enterprise management, the goal of the degree is to educate the next generation of leaders in vision science. These include clinician and non-clinician graduates with medical degrees from foreign countries; medical school graduates interested in joining an ophthalmology residency program; science graduates who want to extend their intellectual horizons; college graduates who intend to improve their medical education prior to entering medical school; professionals in industry, academic research settings, regulatory bodies and philanthropic organizations; and prospective entrepreneurs in the growing field of vision care.

The program is scheduled to begin in August 2016. Ten students will be enrolled per year, for the two-year program. Professor of Ophthalmology Sanjoy K. Bhattacharya, M. Tech., Ph.D., is the director of the MVSIO graduate program. For more information, visit bascompalmer.org. ■

Partners on the Journey of Scientific Discovery



Dr. Eduardo Alfonso, Dr. David Tse, UM President Julio Frenk, Dr. Nasser Ibrahim Al-Rashid, Fahad Al-Rashid, Ibrahim Al-Rashid, Ron Stone and Dean Pascal Goldschmidt

THE DR. NASSER IBRAHIM AL-RASHID ORBITAL VISION RESEARCH CENTER was formally dedicated in March, welcoming the first cure-based, orbital research laboratory in the world where basic science will be translated into clinical cures to transform the lives of patients with eye disease.

The new research center at Bascom Palmer celebrates the culmination of a bond nearly three decades in the making between Dr. Nasser Ibrahim Al-Rashid and David T. Tse, M.D., the director of the eponymous center.

"The dedication of this magnificent orbital research center is the result of a fortuitous chance encounter, fortified by years of friendship and trust," said Tse, who holds the Dr. Nasser Ibrahim Al-Rashid Chair in Ophthalmic Plastic, Orbital Surgery, and Oncology. "Dr. Al-Rashid's commitment to partner with Bascom Palmer on a journey of progress and scientific discovery not only will yield academic excellence and research breakthroughs, but will also have a profound global effect on the quality of life for future generations of patients with orbital diseases."

The center's laboratories and facility, located in the Evelyn F. and William L. McKnight Vision Research Center, was made possible thanks to a transformative \$10 million gift from the Al-Rashid family to support the work of Tse, whom Al-Rashid first met 27 years ago.

In honor of the dedication, Al-Rashid traveled from Dubai, and was accompanied at the ceremony by his sons, Fahad and Ibrahim. He said his commitment stems from his belief in the University of Miami and its passion for research and exceptional clinical care.



Dr. Nasser Ibrahim Al-Rashid with Dr. David Tse

"I am dedicated, with pleasure, to make sure this center, at this University, will prove to the entire world - east and west - that this is where the treatments that are not yet available will emanate from," said Al-Rashid. "That is my dream to see this happen."

The Center is dedicated to the investigation of molecular underpinnings of a broad spectrum of orbital diseases in which effective therapy remains elusive, and to transform the culture of biomedical research to hasten the discovery and implementation of new treatment and prevention strategies.

"Dr. Al-Rashid, you are loved and revered here," said Tse. "This center is now your new home, your new address. You are a partner with us on the journey of scientific discovery." ■

Awards and Honors



CHRIS ALABIAD, M.D., has been appointed assistant dean for Student Affairs at the University of Miami Miller School of Medicine. Alabiad is a specialist in oculofacial plastic and reconstructive surgery, as well as orbital surgery and oncology at Bascom Palmer and the Miami Veterans Affairs Medical Center. A

strong student advocate, Alabiad will oversee student policies, procedures and grading, while providing invaluable advice and support to medical students. For many years, he has been mentoring students interested in ophthalmology and helping them achieve matches with leading residency programs.

Kudos to vitreoretinal fellow and chief resident, **AJAY E. KURIYAN, M.D.**, for receiving the 2016 Evangelos S. Gragoudas Award from the Macula Society. This award was presented to Kuriyan in recognition of his highly regarded paper describing the ability of a novel compound isolated from amniotic membranes to inhibit the development of proliferative vitreoretinopathy, the most common cause for failure of retinal detachment surgery. Inhibiting proliferative vitreoretinopathy could improve visual outcomes and success rates for retinal detachment surgery.

RONG WEN, M.D., PH.D., has been granted a \$100,000 RPB Nelson Trust Award for Retinitis Pigmentosa by Research to Prevent Blindness. The award, established in 2014, is meant to stimulate, strengthen and accelerate research to improve the diagnosis and treatment of retinitis pigmentosa. Wen is one of seven researchers who have received the award since it was established.

Corneal transplantation is the most common form of organ transplantation in the United States and the world. Endothelial cell rejection is the single most common cause of corneal graft rejection. The key to protecting corneal grafts is the early and accurate diagnosis of rejection so that it can be promptly reversed before damage occurs. Bascom Palmer's clinician-scientists and researchers have developed a novel diagnostic technique that has shown the potential to address this critical need. **MOHAMED ABOU SHOUSHA, M.D., PH.D, FRCS**, has received a five-year grant totaling \$1,121,849 from the National Eye Institute of the National Institutes of Health (NEI/NIH) as the principal investigator for efforts advancing state-of-the-art ophthalmic imaging technology for early and accurate diagnosis of corneal graft rejection, thus protecting corneal grafts and patients' vision.



Bascom Palmer Eye Institute's **DANIEL PELAEZ, PH.D.**, research assistant professor of ophthalmology, was named a 2015 Emerging Vision Scientist by the National Alliance for Eye and Vision Research (NAEVR/AEVR) for his novel work on stem cells and retinal regeneration. Pelaez, an expert in stem cell biology, tissue engineering, biomaterials and translational studies, is shown here with U.S. Representative Ileana Ros-Lehtinen (R-FL).

Multiple Sclerosis (MS) is a chronic inflammatory central nervous system disease featured with progressive neural damage. MS patients also show abnormalities in the brain's circulatory system, including decreased blood flow rate and capillary loss. The retina has a vascular system and is an extension of the brain's circulatory system. Therefore, the eye may be an ideal way to study blood circulation in the brain. Assistant Professor of Ophthalmology and Neurology **HONG JIANG, M.D., PH.D.**, has been awarded a three-year grant totaling \$540,834 from the National Multiple Sclerosis Society as principal investigator to use the most advanced ophthalmic imaging techniques to determine whether vascular abnormalities precede or contribute to MS-related neural damage.



Congratulations to **J. WILLIAM HARBOUR, M.D.**, for winning the 2015 Retina Research Foundation and Pan-American Association of Ophthalmology's Paul Kayser / RRF Global Award. The award acknowledges outstanding achievement in visual science with preference given in the specialized field of research on the retina and vitreous. Harbour was recognized for his two decades of discovery in uveal melanoma.

Fifty of Bascom Palmer's ophthalmologists presented more than 150 named lectures, instructional and skills transfer sessions, scientific posters and papers during the 2015 American Academy of Ophthalmology (AAO) annual meeting. Congratulations to **DOUGLAS R. ANDERSON, M.D.**, **JANET L. DAVIS, M.D., M.A.**, and **WILLIAM SMIDDY, M.D.**, for receiving AAO Life Achievement Honor Awards; **STEPHEN G. SCHWARTZ, M.D., M.B.A.**, for accepting a Senior Achievement Award; **JACLYN L. KOVACH, M.D.**, and **MOHAMED ABOU SHOUSHA, M.D., PH.D, FRCS**, for receiving Achievement Awards; and **CAROL L. KARP, M.D.**, for the Secretariat Award.

The James W. Clower, Jr., M.D., Community Service Award, recognizing greatest personal contribution of time and service to the local community, was presented to **RICHARD K. LEE, M.D., PH.D.**, by the Florida Society of Ophthalmology.

"Bascom Palmer Eye Institute has been ranked the nation's best ophthalmology program by clinical reputation by Doximity.com, the largest online physician network. This tradition of excellence has been instrumental in earning the Institute world recognition as a premier teaching, research and patient care facility."

– Eduardo C. Alfonso, M.D.

Corneal specialist, **ELLEN KOO, M.D.**, received a 2015 Grant-in-Aid for her work in keratoconus from Fight For Sight and the Eye Bank for Sight Restoration.

Congratulations to **MICHAEL GITTELMAN**, executive hospital administrator of Bascom Palmer for being selected as a "Power Leader in Healthcare" by *South Florida Business Journal*.



The James W. Clower, Jr., M.D., Community Service Award, recognizing greatest personal contribution of time and service to the local community, was presented to **RICHARD K. LEE, M.D., PH.D.**, by the Florida Society of Ophthalmology.



DANIEL M. ALBERT, M.D., M.S., (center) is surrounded by Bascom Palmer faculty members, residents and fellows in the Dr. and Mrs. Ralph Kirsch Rare Book Room within the Mary and Edward Norton Library of Ophthalmology. Dr. Albert presented this year's Victor T. Curtin Lecture, "The significance of the discordant occurrence of lens tumors in humans versus other species," as part of Bascom Palmer's Distinguished Lecture Series. In addition to his lecture, Albert, founding director of the University of Wisconsin McPherson Eye Research Institute, shared memories of time spent in the Rare Book Room among treasures, such as books on optics by Johann Kepler (1611), Rene Descartes (1664) and Sir Isaac Newton (1704).

Faculty Named Nation's Best

Thirty-eight Bascom Palmer Eye Institute physicians are included in America's Top Doctors, Castle Connolly Top Doctors or Best Doctors in America. Physicians included in these lists are selected by their peers throughout the country for their medical experience and skill. The inclusion of faculty members on these notable lists is another indicator of the extraordinary quality of medical care at Bascom Palmer. The physicians are listed with their practice locations.



Dr. Audina Berrocal



Dr. Kendall Donaldson



Dr. Thomas Johnson



Dr. Krishna Kishor

Best Doctors® Best Doctors in America 2015-2016®

VITREORETINAL DISEASES

Thomas A. Albin, M.D. (M, P, PBG)
Audina M. Berrocal, M.D. (M, N)
John G. Clarkson, M.D. (M)
Janet L. Davis, M.D., M.A. (M, P, PBG, N)
Harry W. Flynn, Jr., M.D. (M)
Jorge A. Fortun, M.D. (PBG)
Ninel Z. Gregori, M.D. (VA)
J. William Harbour, M.D. (M)
Jaclyn L. Kovach, M.D. (N)
Philip J. Rosenfeld, M.D., Ph.D. (M, PBG)
William E. Smiddy, M.D. (M, P, PBG, N)

CORNEAL AND EXTERNAL DISEASES

Eduardo C. Alfonso, M.D. (M)
William Culbertson, M.D. (M)
Richard K. Forster, M.D. (PBG)
Carol L. Karp, M.D. (M)
Terrence P. O'Brien, M.D. (PBG)
Victor L. Perez, M.D. (M, P)
Sonia Yoo, M.D. (M)

GLAUCOMA

Steven J. Gedde, M.D. (M)
David S. Greenfield, M.D. (PBG)
Alana L. Grajewski, M.D. (M, N)
Elizabeth A. Hodapp, M.D. (M)
Krishna S. Kishor, M.D. (PBG)
Richard K. Parrish, M.D. (M)

NEURO-OPHTHALMOLOGY

John R. Guy, M.D. (M)
Norman J. Schatz, M.D. (M)

OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY

Thomas E. Johnson, M.D. (M)
Wendy W. Lee, M.D. (M)

PEDIATRIC OPHTHALMOLOGY

Hilda Capo, M.D. (M)
Craig A. McKeown, M.D. (M)

ANESTHESIOLOGY

Steven I. Gayer, M.D. (M)

Miami (M) Naples (N)
Plantation (P) Veterans Affairs (VA)
Palm Beach Gardens (PBG)



America's Top Doctors®

VITREORETINAL DISEASES

Janet L. Davis, M.D., M.A. (M, P, PBG, N)
Harry W. Flynn, Jr., M.D. (M)
J. William Harbour, M.D. (M, PBG)
Philip J. Rosenfeld, M.D., Ph.D. (M, PBG)

CORNEAL AND EXTERNAL DISEASES

Eduardo C. Alfonso, M.D. (M)
William Culbertson, M.D. (M)
Victor L. Perez, M.D. (M, P)

GLAUCOMA

David S. Greenfield, M.D. (PBG)
Richard K. Parrish, M.D. (M)

NEURO-OPHTHALMOLOGY

John R. Guy, M.D. (M)
Norman J. Schatz, M.D. (M)

OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY

David T. Tse, M.D. (M)

PEDIATRIC OPHTHALMOLOGY

Hilda Capo, M.D. (M)
Craig A. McKeown, M.D. (M, PBG, N)

PEDIATRIC GLAUCOMA

Elizabeth A. Hodapp, M.D. (M)

Castle Connolly's Top Doctors®

VITREORETINAL DISEASES

Thomas A. Albin, M.D. (M, P, PBG)
Audina M. Berrocal, M.D. (M, N)
Sander Dubovy, M.D. (M)
Yale L. Fisher, M.D. (PBG)
Jaclyn L. Kovach, M.D. (N)
Stephen G. Schwartz, M.D. (N, PBG)

CORNEAL AND EXTERNAL DISEASES

Kendall E. Donaldson, M.D., M.S. (M, P)
Anat Galor, M.D. (VA)
Carol L. Karp, M.D. (M)
Sonia H. Yoo, M.D. (M)

GLAUCOMA

Steven J. Gedde, M.D. (M)

NEURO-OPHTHALMOLOGY

Byron L. Lam, M.D. (M, PBG)

OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY

Thomas E. Johnson, M.D. (M)
Wendy W. Lee, M.D. (M)

Vision Restored for Blind Artist

A 41-year-old blind and deaf artist from Trinidad is ready to take his creative career to a new level, following sight-restoring surgery at Bascom Palmer. Through a collaborative pro bono University of Miami (UM) initiative supported by private donations, Selris James was able to learn sign language and exhibit his works on the University's Coral Gables campus.

"Selris demonstrated a tremendous artistic talent from an early age, but there has been little opportunity for him to express that in Trinidad," said Beth Harry, professor of special education in the Department of Teaching and Learning of the School of Education and Human Development. "He is a gifted artist who has faced an uphill struggle all his life."

James' mother, Gwenie Gomez-James, contracted rubella during her pregnancy, which resulted in Selris being born blind and deaf. He gained some sight in his left eye after childhood surgery in Trinidad, and taught himself the letters of the alphabet by watching Sesame Street. He began drawing cartoon-like art when he was 5, according to Harry, who has known James since childhood.

A native of Jamaica, Harry lived in Trinidad and founded the Immortelle Children's Centre, a school for children with disabilities, in memory of her daughter Melanie. After being rejected by a school for the blind and one for the deaf because of his double disability, Harry helped James enroll at the Immortelle Center, where he stayed until age 21, his fees paid by the local Rotary Club.

Earlier this year, Harry launched a fundraising effort to bring James to Miami to see if his vision and communication skills could be improved. "I've gotten a wonderful response from the entire university community," she said.

Bascom Palmer ophthalmologist Richard Lee, M.D., Ph.D., evaluated James and found that a cataract in his right eye had not been fully removed during childhood surgery. Guillermo Amescua, M.D., a cornea specialist, removed the cataract, which had turned into a powder-like substance that inflamed the retina.



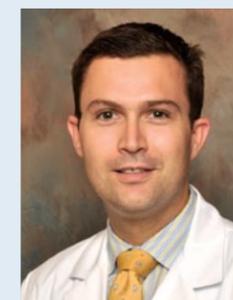
"Because of the damage to his eye, we fitted Selris with a new pair of high powered glasses, giving him central vision of around 20-50," said Amescua. "It was very gratifying to see his big smile when he put on the lenses and could finally see."

Dr. Michelle Schladant and her team of communication specialists at the UM Mailman Center for Child Development evaluated James' communication skills. Then, therapist Kirsten Schwarz Olmedo began working on his sign language skills, including a big "U" for the University of Miami. "I want to give Selris the gift of language," she said, adding that James is also learning to read and to speak through an application on an iPad.

Throughout his stay, James created new artwork, including a giraffe he saw at ZooMiami, a Metrorail train, and campus scenes. "Two days after his eye surgery, he drew a pictorial narrative of his vision from birth to now," said Harry.

Recently, Harry created a collection of James' drawings, "Deaf, Blind, and Smart as a Whip," and published it on Shutterfly. She also organized an exhibition of his works to help him become a self-sustaining artist on his return to Trinidad.

"Without the generous support of my colleagues and friends at UM, the Caribbean, U.S., Canada, and Trinidad, there would have been no possibility of this wonderful outcome for Selris," Harry said. "My heartfelt thanks to all whose kindness made this possible." ■



Dr. Guillermo Amescua

To schedule an appointment with a Bascom Palmer specialist, please call 1-888-845-0002 or visit bascompalmer.org.

FACULTY EXPANDS

Bascom Palmer Eye Institute of the University of Miami Miller School of Medicine recently announced the appointment of five new faculty members. By recruiting these outstanding physicians, the Institute has increased the size of its faculty to 67 physicians and 21 investigators. This team of 88 strong is committed to continuing Bascom Palmer's history of advancing the practice of ophthalmology through innovations in therapeutics, diagnostics and vision research.

MOHAMED ABOU SHOUSHA, M.D., PH.D., FRCS, a cornea specialist, joins the faculty as an



assistant professor of clinical ophthalmology. He received a bachelor's degree in medicine and surgery and a master's degree in ophthalmology from Alexandria University, Egypt. He then received a doctoral degree of ophthalmology from the

Supreme Council of Universities – Egypt. Abou Shousha completed an ophthalmic residency at Saint Louis University Eye Institute; a fellowship at the Royal College of Physicians & Surgeons of Glasgow University, United Kingdom; and both research and clinical fellowships in corneal and external diseases at Bascom Palmer. Abou Shousha's research interests include new technologies for early diagnosis and treatment of corneal graft rejection, keratoconus, dry eye and ocular surface diseases, and pediatric and adolescent corneal transplant research. He is available for consultation on corneal and external diseases, including cataracts and intraocular lens, infectious diseases and keratoconus, in Miami and Plantation.

ALLISTER G. GIBBONS, M.D., joins the faculty as an assistant professor of clinical ophthalmology.



A corneal and external disease specialist, he completed his undergraduate training and earned a doctor of medicine degree from the Universidad de los Andes, Santiago, Chile. He completed an ophthalmology residency and a fellowship in

anterior segment and refractive surgery at the Fundacion Oftalmologica Los Andes. After four years

sharing his time between working in a public hospital and in private practice, his clinical, surgical, and research interests in cornea, external diseases and cataracts led him to pursue an ocular surface fellowship at Bascom Palmer. His research interests include dry eye, ocular surface diseases and keratoprosthesis. Gibbons is available for consultation on cataracts and intraocular lens surgery, corneal transplants, and dry eye at Bascom Palmer in Naples.

BRADFORD W. LEE, M.D., M.SC., an oculoplastic and reconstructive surgeon, joins the faculty as



an assistant professor of clinical ophthalmology. He received a bachelor's degree, magna cum laude in biochemical sciences from Harvard University; a master of science degree with honors and distinctions in health policy, planning and financing from the

London School of Economics & London School of Hygiene & Tropical Medicine; and a doctor of medicine degree at Stanford University School of Medicine. He then completed an ophthalmology residency at Bascom Palmer Eye Institute and an oculofacial plastic and reconstructive surgery fellowship at Shiley Eye Institute at the University of California San Diego School of Medicine. Lee's research interests include thyroid eye disease and regenerative medicine and aesthetic applications in oculoplastic surgery. He is available for consultation on aesthetic and cosmetic treatments, oculofacial plastic surgery, eyelid and orbital reconstructive surgery, and thyroid eye disease in Palm Beach Gardens.



VICTOR M. VILLEGAS, M.D., is a retinal specialist who received his bachelor of science degree at the University of Florida. He then completed his medical degree and residency in ophthalmology at the University of Puerto Rico School

of Medicine and a pediatric ophthalmology and strabismus fellowship at Bascom Palmer. He also completed additional fellowship training in ocular oncology and vitreoretinal diseases and surgery. Villegas joins Bascom Palmer as an assistant professor of clinical ophthalmology and also holds a faculty appointment at the University of Puerto Rico. His primary research interests include retinopathy of prematurity and retinoblastoma. He is available for consultation in Naples.



BRIAN GOLDHAGEN, M.D., joins the vitreoretinal service at Bascom Palmer as an assistant professor of clinical ophthalmology. He received a bachelor of science degree from the University of Rochester and a doctor of medicine degree from Duke University School of Medicine, where he also completed an ophthalmology residency. Goldhagen then completed a medical retina fellowship at Bascom Palmer. His research interests include retinal vascular disease, age-related macular degeneration, diabetic eye disease, and ocular imaging. He is available for consultation in Miami. ■



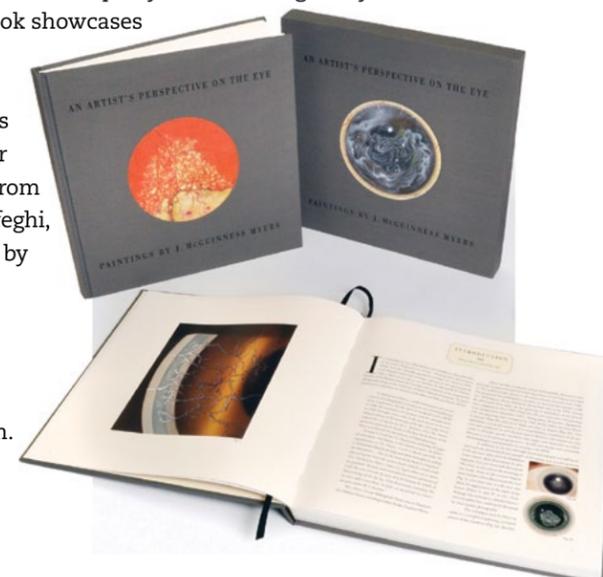
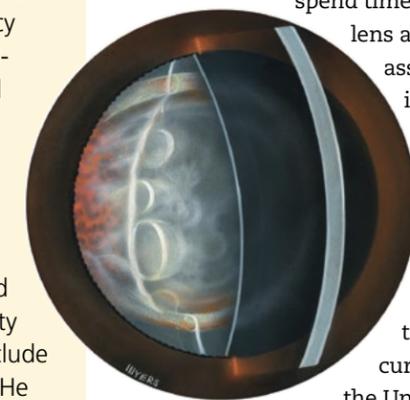
Dr. Richard Forster conducting a tour of the Myers paintings.

The Eye – The Jewel of the Body

In 1966, Edward W. D. Norton, M.D., Bascom Palmer's founding chairman, recruited J. McGuinness Myers, a talented medical illustrator, to spend time at Bascom Palmer to illustrate the cornea, lens and retina. At the end of three years, Myers had assembled more than 100 outstanding paintings and sketches that not only show parts of the eye, but also illustrate eye disease, long before photography was able to do so. The drawings are immaculate and show the eye with amazing clarity. Some of the Myers paintings are on display in the Ibis Suite at Bascom Palmer's Palm Beach Gardens location. Twenty-seven of Myers' original works are currently on display at the Lowe Art Museum on the University of Miami's Coral Gables campus. The exhibit, "The Noblest Feature: The Eye Paintings of J. McGuinness Myers," runs through July 31, 2016.

In 2012, **Richard K. Forster, M.D.**, the Richard K. Forster Chair in Ophthalmology, enthusiastically spearheaded the efforts to publish "An Artist's Perspective on the Eye: Paintings by J. McGuinness Myers," an exquisite book that is equally as interesting for eye doctors as for art lovers. The book showcases 124 renderings from the Myers portfolio, and was written by Forster with assistance from Andrew A. Moshfeghi, M.D., and editing by Reva Hurtes.

To purchase the beautiful 198-page book, visit fineartspress.com.



Bascom Palmer Alumnus Supports Institute

“We are very grateful that Bascom Palmer has brought leading-edge academic care to Naples.”

—Joseph Beauchamp, Jr., M.D.

Five decades ago, Joseph O. Beauchamp, Jr., M.D., (Resident, 1968) was honing his skills in ophthalmology at Bascom Palmer. Today, the retired Naples ophthalmologist and his wife, Jean, are proud of their contributions to the Institute in support of the new eye center at Naples.

“Bascom Palmer’s new facility is a wonderful addition to our community,” said Beauchamp, who spent 28 years in private practice in Naples before retiring in 1996. “I urged Bascom Palmer to open a satellite office here years ago, and was very pleased when the Institute came to Naples in 2004.

“It is very impressive to see this state-of-the-art facility, which brings world-class vision care to our community,” said Jean Beauchamp, of the \$25 million, 20,000-square-foot eye center that opened in 2015.

Following medical school at Jefferson Medical College, Joe, a Massachusetts native, headed south for a three-year residency at Bascom Palmer. He trained with founder and chairman Edward W.D. Norton, M.D., Victor Curtin, M.D., Donald Gass, M.D., and other faculty members. “Even though they were already giants in the field of ophthalmology, the faculty made us feel special - like we were part of the family,” Beauchamp said.

When the Beauchamps married in 1967, Bascom Palmer’s physicians, residents and staff members were all in attendance. “We had to plan our wedding for a Saturday afternoon, after grand rounds were completed,” recalled Jean.

During his residency, Beauchamp also became a patient, when he was treated for chorioretinitis, an inflammation of the eye often caused by toxoplasmosis. “I had gotten the infection from my dog when I was in medical school,” he said. “It didn’t bother me until it flared up during my residency. Fortunately, Bascom Palmer had invested in a brand-new ruby laser, called ‘Big Bertha,’ that was able to correct my condition.”

After the residency, the Beauchamps moved to Naples at the suggestion of Nicholas H. Kalvin, M.D., (Resident, 1966) a community ophthalmologist

who had finished his residency two years before Beauchamp. “Although we did not practice together, we have been very good friends,” Beauchamp said. Beauchamp soon built a general ophthalmology practice that included corneal transplants, retinal transplants and cataract surgeries before he decided to focus on oculoplastic procedures, such as treating cancers of the eyelid. He also maintained close ties to Naples Community Hospital throughout his career.

“I have been privileged to be to part of Naples as it grew and flourished,” he said. “I was just the 22nd physician in town when I started my practice, and today there are more than 1,000 doctors here.”

Longtime supporters of Bascom Palmer’s growing involvement in the region, the Beauchamps recently became members of the Luminary Society for their generous contributions to the Institute. As Beauchamp says, “We are very grateful that Bascom Palmer has brought leading-edge academic care to Naples.” ■



Dr. Joseph Beauchamp and his wife, Jean



The Herran family

Photo by Kane and Social - Robert Chamorro

Preserving Sight in Infant with Rare Genetic Condition

Soon after Javier “JJ” Herran was born in early 2014, his mother, Cindy, realized something was not right with his vision. “We saw that his eyes were not normal,” says Herran. “Our pediatrician referred us to Bascom Palmer, and my husband, Javier, and I brought JJ in right away for a diagnosis.”

At the Institute, Audina M. Berrocal, M.D., professor of clinical ophthalmology and a specialist in pediatric vitreoretinal conditions, took a careful look at JJ’s eyes using advanced angiographic imaging to see the tiny blood vessels. She identified JJ’s problem as advanced familial exudative vitreoretinopathy (FEVR), a rare genetic disorder affecting the growth and development of blood vessels in the retina. It can lead to visual impairment or permanent blindness.

“We performed emergency laser surgery two days later, with several follow-up surgeries over the next few months,” says Berrocal. “We were able to stabilize JJ’s retinas and preserve some of his vision, and that makes such a difference for a child.”

Now, as JJ nears his second birthday, he enjoys running around his home playing with his older sisters, Ellie, Lucia and Abby. “He sometimes bumps into things, and he loves being tossed gently up in the air,” Herran says. “He is definitely all boy.”

Herran has been a supporter of Bascom Palmer for many years, since her brother, Julio Prieto, was treated for a similar retinal problem decades ago by Institute founder Edward W.D. Norton, M.D., and William E. Smiddy, M.D., the M. Brenn Green Chair in Ophthalmology.

Prieto, who was legally blind as a child, traveled from Cuba to Spain to Miami for treatment. While his doctors in Spain saw the retinal detachments in both eyes, they felt the problem was caused by an eye infection. “However, Julio’s old medical records indicate that he also had FEVR,” said his sister. “The Bascom Palmer team has been able to preserve his limited vision. Fortunately, JJ was able to get a genetic test confirming his FEVR diagnosis.”

In recent years, Bascom Palmer has taken advantage of advancements in angiography and other imaging tools to better understand, diagnose and treat pediatric retinal diseases such as FEVR.

“We have learned that FEVR is a progressive, lifelong condition,” says Berrocal, who continues to see JJ every few months for vision checkups. Because FEVR tends to run in families, she also examined JJ’s three sisters and found no signs of the disorder.

Today, the Institute’s ophthalmologists are on the leading edge of treating FEVR as well as pediatric glaucoma and other unusual vision problems in children. “We use fluorescein angiography to examine the retina right in the operating room - a tool that is not widely available,” Berrocal says. “We also recognize the importance of managing FEVR as a chronic condition, rather than as an acute problem that can be corrected in one surgery.”

Meanwhile, Cindy and Javier Herran are very happy with the care JJ and Julio have received from Bascom Palmer. “Dr. Berrocal and the entire Bascom Palmer team are true professionals who care about their patients. It’s amazing that we live in South Florida and have such a high level of care right here.” ■

“Dr. Berrocal and the entire Bascom Palmer team are true professionals who care about their patients.”

—Cindy Herran.

Inaugural Gala Raises \$700,000 for Bascom Palmer at Naples

Bascom Palmer hosted its inaugural gala, "Evening of Vision - Under the Stars," in January at its new, landmark eye center in Naples.

After a stormy day, clouds parted and stars illuminated the sky for a sold-out crowd of 250 people. With the sound of the Stamps Jazz Quintet of the University of Miami Frost School of Music in the background, guests toured the center and enjoyed a lovely dinner under a brilliant full moon. Entertainment continued with a special performance by Glenn Basham, professor emeritus at the Frost School, and an exciting auction that raised \$700,000 for Bascom Palmer's ambulatory surgical center.

"We are very excited with the success of our first gala, which would not have been possible without the wonderful support of the Naples community," said Andy Cummins, member of Bascom Palmer's Naples advisory board. "The unique venue offered our guests a chance to see this magnificent building firsthand, enjoy a delicious meal, and participate in supporting the new surgical suites."

Honorary chair of the gala was Alan Korest, and members of the gala committee included: Usha Ahuja, Reg Buxton, John Clough, Andrew E. Cummins, Stephanie Goforth, Jonathan E. Gopman, Colleen Murphy, Patrick H. Neale, Bill O'Meara and Mayela Rosales.

Bascom Palmer Eye Institute at Naples has been funded by Bascom Palmer's Ophthalmology Research Foundation, along with generous philanthropists and families living in the Naples community, including the Ernie D. Semersky Family, Dory Newell, Allyn J. Heath, Monte and Usha Ahuja, Don and Connie Smith, and Shelia Smith Davis. ■



"The unique venue offered our guests a chance to see this magnificent building firsthand, enjoy a delicious meal, and participate in supporting the new surgical suites."

- Andy Cummins.



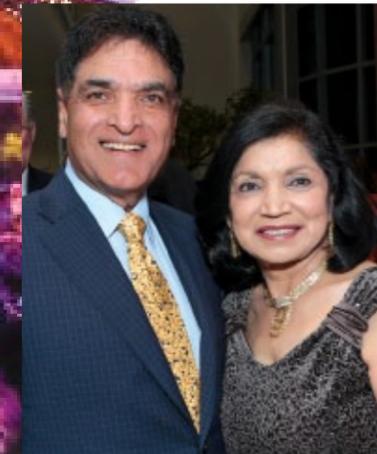
Bill O'Meara, Dr. Eduardo Alfonso, Dr. Stephen Schwartz



Hanna and Andy Cummins



Melanie and Dr. Stephen Schwartz



Monte and Usha Ahuja



Tom Moran, Sandi Moran, Dean Pascal Goldschmidt, Shelia Smith Davis



Maureen O'Gorman and Rusty Troth



Armando Zacarias, Jeffrey Zacarias, Stacey Meyer Deffenbaugh, Mariela Lara



Seeing is Believing at Medical Forum

Bascom Palmer Eye Institute's annual Palm Beach Medical Forum and Luncheon took place in January at The Mar-a-Lago Club. With the first luncheon held in 1988, the medical forum has become a much appreciated Palm Beach tradition. Bascom Palmer's Chairman, Eduardo C. Alfonso, M.D., welcomed more than 150 guests and shared the Institute's latest developments in vision research and eye care. He then acknowledged and thanked Monnie Donnelley, luncheon chairwoman and a longtime Bascom Palmer supporter.

The forum featured three informative presentations by Bascom Palmer ophthalmologists. Sara Wester, M.D., an oculofacial plastic surgeon spoke to the audience about ophthalmic plastic and reconstructive treatment options, as well as sun safety recommendations for the eyes. Krishna Kishor, M.D., a glaucoma specialist, presented information about risk factors for glaucoma. Thomas Albini, M.D., a vitreoretinal specialist, discussed stem cell advances in retinal diseases, such as macular degeneration. Following their presentations, the physicians fielded questions from the audience in a panel discussion. ■



Barney and Monnie Donnelley with Dr. Eduardo Alfonso



Dr. Thomas Albini, Dr. Sara Wester and Dr. Krishna Kishor



Nikki Fanjul, Cathie Fanjul



Carole Butcher, Hermé de Wyman Miro



Patricia and Howard Lester

Bringing Vision into Focus

Tiffany Cloutier and Erin McGould hosted a ladies luncheon, "For Your Eyes Only," on behalf of Bascom Palmer Eye Institute. More than 60 ladies attended the luncheon, which took place in February at Club Colette in Palm Beach, and featured an informative presentation by Terrence P. O'Brien, M.D., professor of ophthalmology at Bascom Palmer. O'Brien spoke about presbyopia and vision changes that take place over time. ■



Tiffany Cloutier, Dr. Terrence O'Brien, Erin McGould



Lois Pope, Karen Fleming



Tricia Keitel, Janet Sheehan



Mary Freitas, Betsy Meany

Bascom Palmer Shines at its Palm Beach Evening of Vision



Dr. Eduardo and Molly Alfonso with Marietta and Dale McNulty



Irvin and Robin Saltzman



Adolfo Zaralegui, Marietta McNulty, James Borynack



Rick and Suzi Goldsmith with Dr. Eduardo Alfonso

More than 220 friends and supporters of Bascom Palmer Eye Institute gathered to celebrate the 35th annual Evening of Vision gala held at The Mar-a-Lago Club on Saturday, March 5. The outstanding event was chaired by Marietta and Dale McNulty. Raysa and Alfonso Fanjul were honorary chairmen, and Hermé de Wyman Miro served as international honorary chairwoman.

Following cocktails and hors d'oeuvres, a gourmet dinner was served in the grand ballroom. Entertainment was provided by The Bob Hardwick Orchestra.

A warm welcome was given by Eduardo C. Alfonso, M.D., chairman of Bascom Palmer, who paid tribute to the McNultys for their invaluable contributions to the Institute. "We are privileged to have this opportunity to say thank you to Dale and Marietta and the McNulty Family Charitable Foundation for their

generosity to Bascom Palmer," said Alfonso. "For many years, they have supported Bascom Palmer's mission to restore vision through patient care, research and education."

Grand Gala Patrons were The McNulty Family Charitable Foundation, Earl and Christy Powell, and Wally Findlay Galleries. Gala Patrons included Veronica Atkins, Raysa and Alfonso Fanjul, Helena and Dikran Izmirlian, Michele and Howard Kessler, Robert and Toni Holt Kramer, Hermé de Wyman Miro, Lois Pope, Ari Rifkin, and Robin and Irvin Saltzman.

All gala proceeds will support patient care and vision research at Bascom Palmer Eye Institute in Palm Beach Gardens. ■



Alfonso and Raysa Fanjul



Robert and Toni Holt Kramer



Hermé de Wyman Miro with Veronica Atkins

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Blind, deaf artist gets fresh start at Bascom Palmer. *Story page 27*