

# Images



**50** YEARS OF  
**VISION**  
Bascom Palmer Eye Institute  
Second to None

Bascom Palmer Celebrates 50 Years  
And is Once Again Ranked  
**#1** in Ophthalmology  
for the 10th Year in a Row  
by *U.S. News & World Report!*



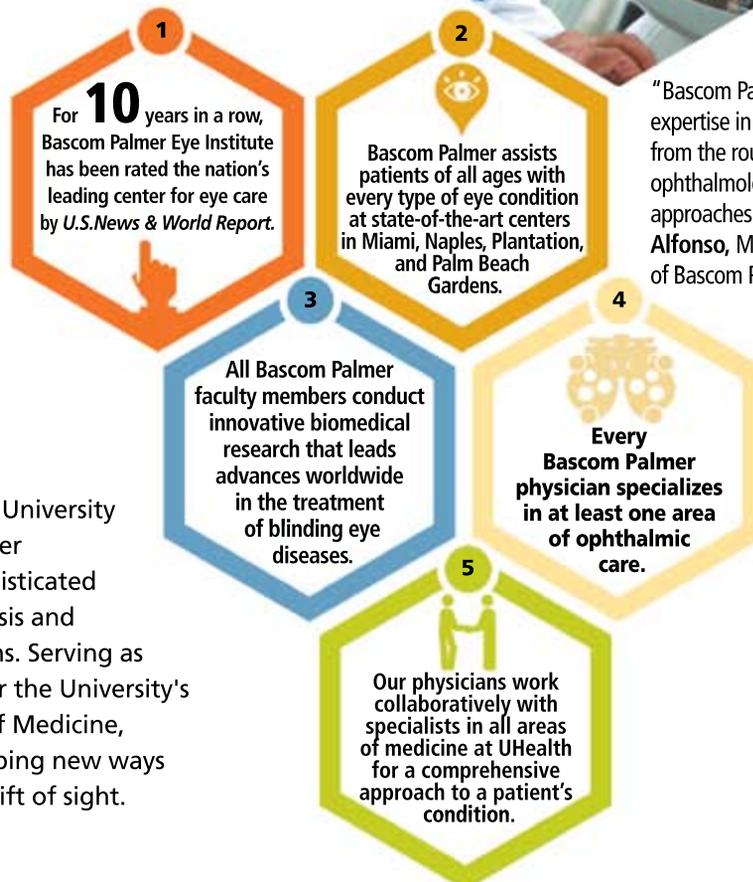
You have only one pair of eyes. Trust them to the nation's #1 eye hospital.\*

## Bascom Palmer Eye Institute.

\*U.S. News & World Report



An outstanding program of UHealth – University of Miami Health System, Bascom Palmer Eye Institute is home to the most sophisticated expertise and technologies for diagnosis and treatment of all types of eye conditions. Serving as the Department of Ophthalmology for the University's renowned Leonard M. Miller School of Medicine, Bascom Palmer is dedicated to developing new ways to protect, preserve, and restore the gift of sight.



"Bascom Palmer provides unsurpassed expertise in eye concerns that range from the routine to the rare—and trains ophthalmologists in the very latest approaches to eye care." – Eduardo C. Alfonso, M.D., professor and chairman of Bascom Palmer Eye Institute.

To learn more about Bascom Palmer, call 888-845-0002.



bascompalmer.org

# contents



4



22



36



45

**50 Years of Discovery and Innovation 4**

**50th Anniversary Scientific Meeting 22**

**New Ocular Oncology Center 24**

**Center for Dry Eyes Established 26**

**New Faculty Appointments 28**

**Expansion throughout South Florida 30**

**Evening of Vision Gala 34**

**Philanthropic Donors 36**

**Bascom Palmer Ranked #1 in USA 45**

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.

*Since 1990, Bascom Palmer Eye Institute has been ranked #1 or #2 in ophthalmology in the USA. We have earned the #1 ranking 12 times.*



Bascom Palmer Celebrates 50 Years  
**And is Once Again Ranked  
 #1 in Ophthalmology  
 for the 10th Year in a Row**  
*by U.S. News & World Report!*



(From top, left to right) **1** Bascom H. Palmer, M.D., **2** Richard K. Forster, M.D. **3** John T. Flynn, M.D. **4** Eduardo C. Alfonso, M.D. **5** Bascom Palmer Eye Institute **6** Carol L. Karp, M.D. **7** Female faculty members from 2002 **8** David T. Tse, M.D. **9** Victor T. Curtin, M.D., Eduardo C. Alfonso, M.D., Edward W.D. Norton, M.D. **10** Harry W. Flynn, M.D. **11** Jianhua (Jay) Wang, M.D., Ph.D., M.S. **12** Janet L. Davis, M.D. **13** Norman Schatz, M.D. **14** Jean-Marie Parel, Ph.D., ING ETS-G **15** Vittorio D. Porciatti, D.Sc. **16** Bascom Palmer's annual Curso Inter-Americano attracts 500 ophthalmologists from 30 countries. **17** Robert Machermer, M.D. **18** Silicon oil droplets on a silicon intraocular lens **19** Wei Li, Ph.D. **20** John G. Clarkson, M.D. **21** William E. Smiddy, M.D. **22** Terrence P. O'Brien, M.D. **23** Carmen A. Puliafito, M.D., M.B.A. **24** James Banta, M.D. **25** Edward W.D. Norton, M.D. **26** William W. Culbertson, M.D. **27** Richard K. Parrish II, M.D. **28** Bascom Palmer is ranked #1 Eye Hospital by *U.S. News & World Report* for 2013-14 **29** Edward W.D. Norton, M.D., and Victor T. Curtin, M.D. **30** Bascom Palmer's Vision Van **31** Philip J. Rosenfeld, M.D., Ph.D. **32** Hilda Capó, M.D. **33** Steven J. Gedde, M.D. with residents



### Now in Print: *Fifty Years of Vision*

Bascom Palmer Eye Institute chronicled its 50-year history in a commemorative golden anniversary, hardcover book titled *Bascom Palmer Eye Institute 50 Years of Vision*. Fifty years of achievements are built on the vision of ophthalmologist Bascom H. Palmer, M.D., who arrived in Miami in 1923, but died before his dream of a comprehensive ophthalmic hospital "second to none" could be fulfilled. That mission was taken up by our founder and chairman of 33 years, Edward W.D. Norton, M.D. Recognizing that the basic ingredient for excellence is people with knowledge, compassion and integrity, "the Chief" urged us to become the best ophthalmologists we could be, and provided the support for research, teaching and clinical care. This book highlights our successes spanning five decades.

To order your copy, please call our Development Office at 305-326-6190 or write [bascompalmercommunications@med.miami.edu](mailto:bascompalmercommunications@med.miami.edu)



Dear Friends and Colleagues:

Welcome to Bascom Palmer Eye Institute's 50th anniversary issue of *Images*. In this issue, we are happy to share with you highlights of our remarkable 50-year history, which was celebrated in February 2012 with an international scientific meeting in Coral Gables, Florida, and various anniversary events throughout 2012. This issue introduces you to some of the most significant advances made at Bascom Palmer since its founding, as well as including our newest doctors, global leaders in ophthalmology whom we have been lucky enough to call colleagues and friends for many years.

As we continue to expand our faculty and physical locations, we remain cognizant of the giants upon whose shoulders our progress stands, the founders of the Institute, **Drs. Edward Norton, Victor Curtin, Don Gass, John Flynn, Lawton Smith**, and so many others. Since 1962, Bascom Palmer Eye Institute has been setting standards in ophthalmology and forging new understanding of eye diseases, their treatments and prevention.

Three new centers have opened at Bascom Palmer in recent months. The Ocular Oncology Center combines the expertise of **David Tse, M.D.**, (eyelid and orbital tumors), **Carol Karp, M.D.**, (ocular surface tumors), and, new to our faculty, **Bill Harbour, M.D.**, (intraocular tumors). These three physicians are not only tackling eye cancer, they are collaborating to advance our knowledge of eye cancers for future generations. Their affiliation with the University of Miami's Sylvester Comprehensive Cancer Center augments their effectiveness in these endeavors.

The Ocular Surface Center is dedicated exclusively to patients with severe ocular surface disorders, including thermal and chemical burns, severe dry eye, and Stevens-Johnson Syndrome. **Victor Perez, M.D.**, the cornea specialist who performed the first modified osteo-odonto-keratoprosthesis in the U.S., is leading a team of specialists who offer novel treatments to patients who are often told nothing more can be done for them.

We have also launched the L. Jules and Shirley Arkin Laser Center, featuring the revolutionary new femtosecond laser cataract and cornea surgery system co-developed by Bascom Palmer doctors. This new laser allows us to improve outcomes for cataract and cornea surgery patients.

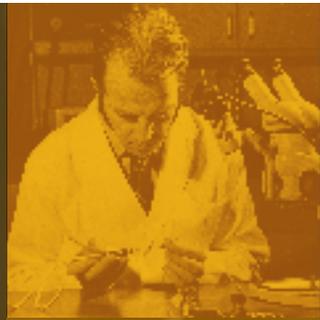
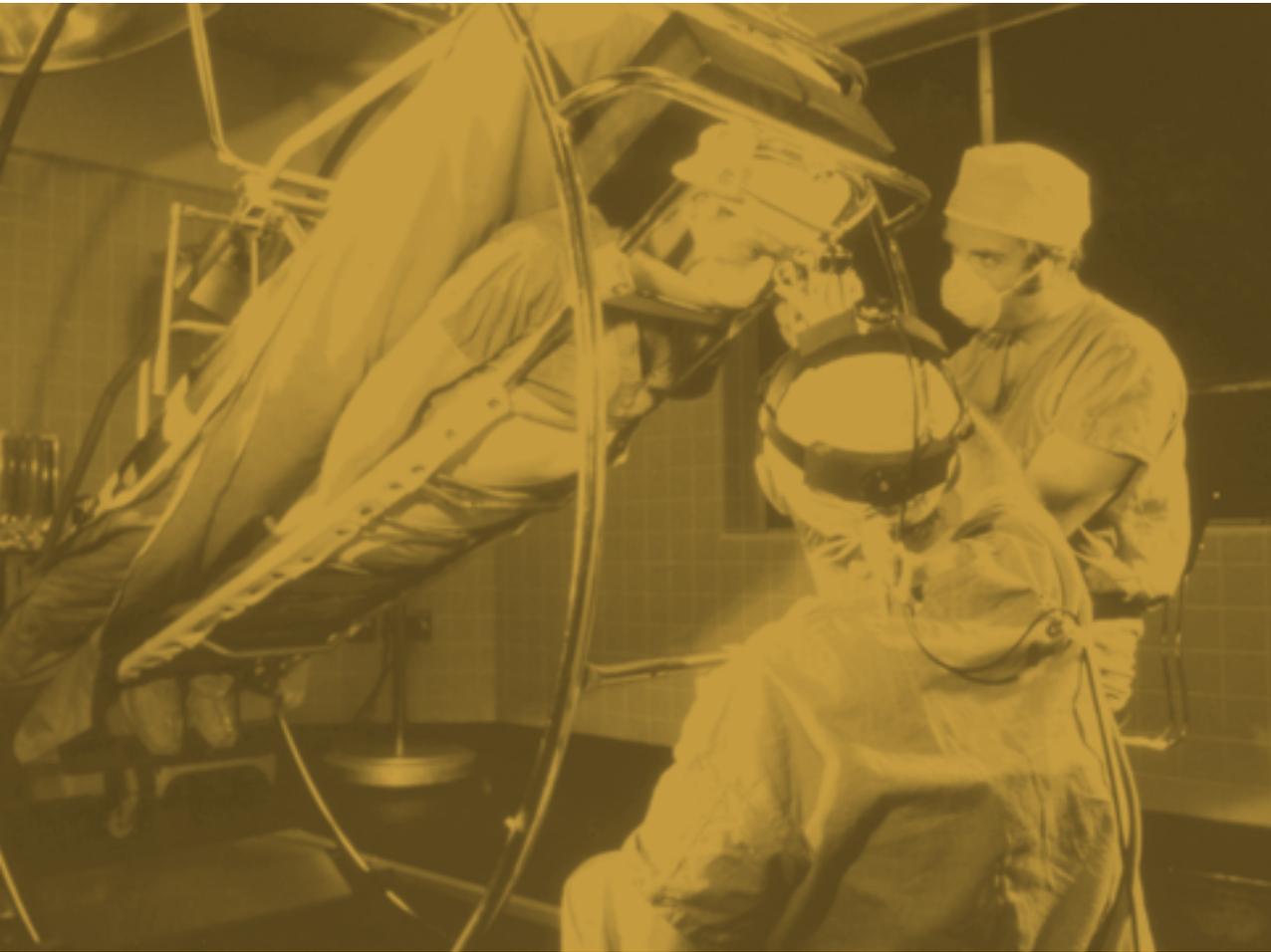
From all of us at Bascom Palmer Eye Institute, thank you for your continued support, which has helped us take giant leaps forward in treating, preventing, and understanding blinding eye diseases and has supported our doctors and scientists as they teach new generations of ophthalmologists to ensure continued advances in eye care. We look forward to another stellar 50 years!

Sincerely,

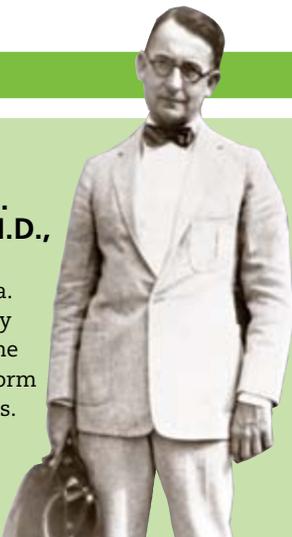
**Eduardo C. Alfonso, M.D.**

Kathleen and Stanley J. Glaser Chair in Ophthalmology  
Chairman, Bascom Palmer Eye Institute

# 50 YEARS

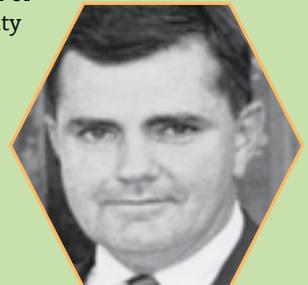


**1923**  
**Bascom H. Palmer, M.D.,**  
arrives in South Florida. He is the only surgeon in the state to perform corneal grafts.

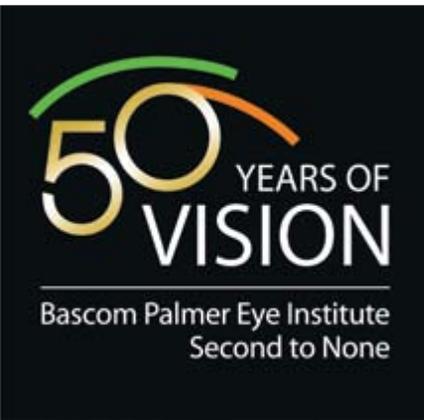


**1949**  
**Miami Lighthouse for the Blind**  
An early supporter of the Miami Lighthouse for the Blind, Dr. Palmer hopes to establish an eye institute “second to none” in the nation.

**1958**  
**Edward W.D. Norton, M.D.,**  
is appointed associate professor and “chief” of the division of ophthalmology, University of Miami School of Medicine. The following year, he secures approval to expand to a department of ophthalmology and is appointed its first “chairman.”



# of discovery and innovation



## Bascom Palmer Eye Institute Celebrates its Golden Anniversary

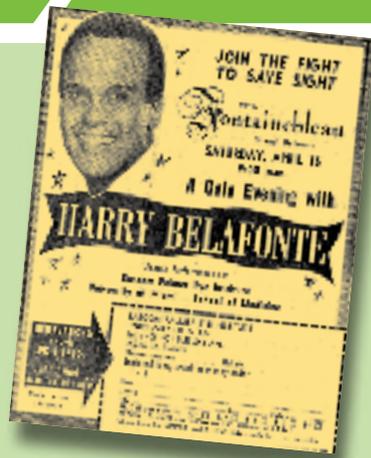
Bascom Palmer Eye Institute's story dates back to 1943, in the midst of World War II, when **Bascom Headon Palmer, M.D.**, first discussed the feasibility of establishing an eye clinic in Miami dedicated to saving sight and preventing blindness. Palmer was the first surgeon in Florida to perform corneal transplants. Looking to the future with hope, he predicted Miami would eventually be home to an ophthalmology institute in a medical center second to none in the nation.

Palmer, who passed away in 1954, lived long enough to see the establishment of the University of Miami School of Medicine in 1952. Certainly, no one at that time would have guessed that his predication would come true within just a few years – thanks to a remarkable physician named **Edward W. D. Norton, M.D.**

In 1958, Norton, a young assistant professor of ophthalmology at Cornell University Medical College, accepted an offer from the new University of Miami School of Medicine to become the chief of the division of ophthalmology. His leadership laid the foundation for the department's rapid growth.



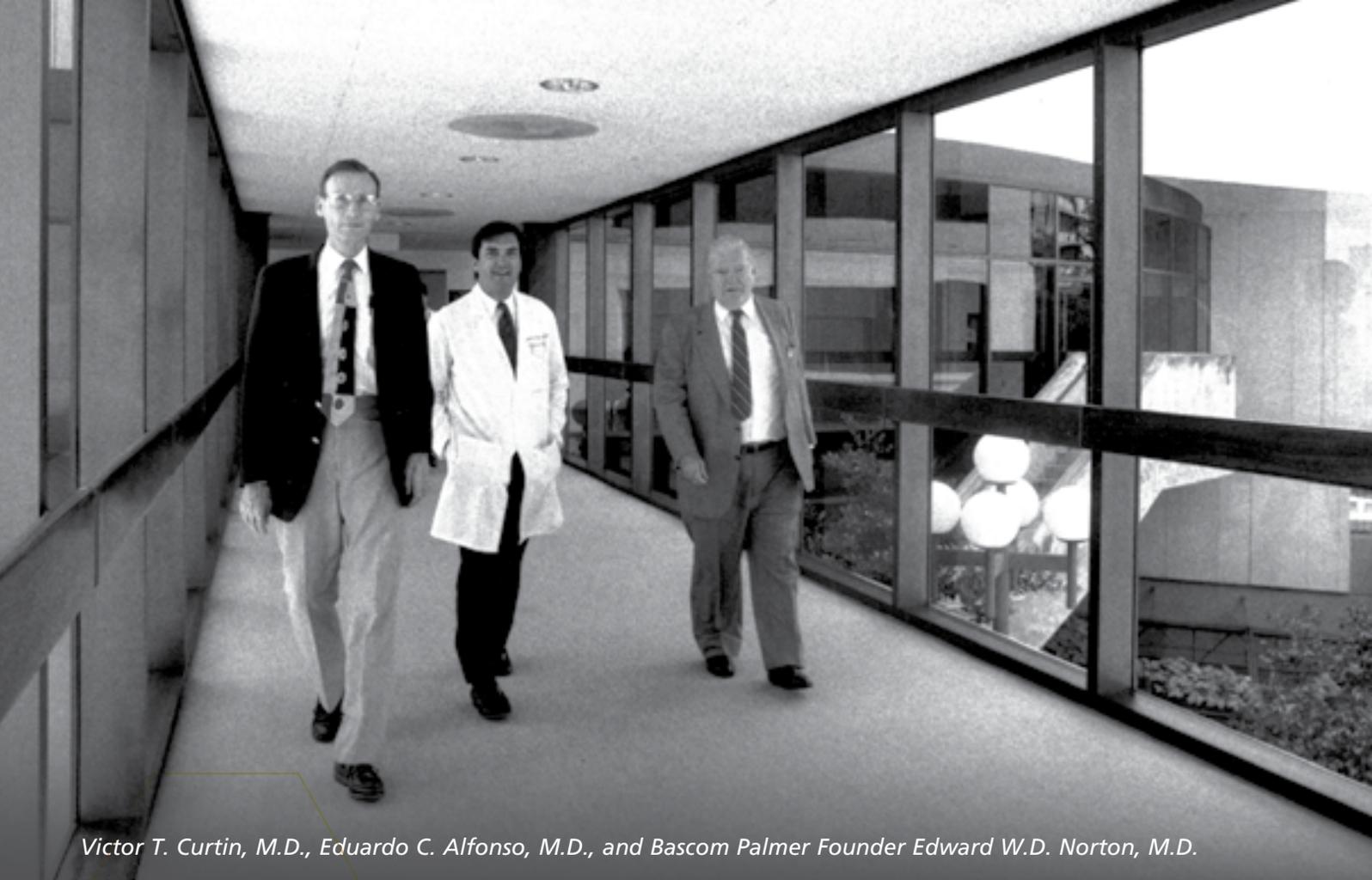
**1959**  
**Victor T. Curtin, M.D.**, a vitreoretinal specialist and ocular pathologist, is recruited as Bascom Palmer's second faculty member.



**1960**  
**Harry Belafonte** is an early and long-time supporter of Bascom Palmer Eye Institute. Dr. Norton operated on a retinal detachment in Belafonte's eye in 1957.

### 1961 FACTS

Number of patients  
**13,600**  
Surgical procedures  
**1,300**



*Victor T. Curtin, M.D., Eduardo C. Alfonso, M.D., and Bascom Palmer Founder Edward W.D. Norton, M.D.*

For Norton, an excellent neuro-ophthalmologist and a master retinal surgeon, the opening in 1962 of Bascom Palmer Eye Institute, named in honor of Dr. Bascom Palmer, was the first step in the long journey to global leadership in ophthalmology. Under Norton's dynamic 33-year leadership, as well as the subsequent chairmen who followed him, Bascom Palmer Eye Institute has become one of the world's foremost academic medical centers for scientific discovery and clinical innovation.

## The Early Years

One of the greatest challenges facing the young institute was the recruitment of outstanding faculty. Norton was determined to attract the finest ophthalmologists in the country. In 1959, Victor T. Curtin, M.D., a vitreoretinal specialist and ocular pathologist, became the first faculty member



### 1962 Building dedication

On January 21, university and civic leaders dedicate Bascom Palmer Eye Institute, a 30,000-square-foot building with two faculty members and a total staff of 12.



### 1962 Basic research begins

Duco Hamasaki, Ph.D., becomes the first basic researcher to join the faculty.

1962  
J. Lawton Smith, M.D., a neuro-ophthalmologist and extraordinary educator becomes the third faculty member.



to be recruited by Norton. Throughout their long professional relationship, Norton relied on Curtin to handle a variety of administrative projects, while Curtin also saw patients, interviewed residency candidates, and maintained the department's high standards.

Along with his clinical and teaching responsibilities, Norton began to reach out to local organizations and potential donors who could provide the needed funds for a stand-alone eye clinic. He soon established a close relationship with the Miami Lighthouse for the Blind, which set aside \$200,000 in 1959 for construction. Norton and Curtin also became friends with leaders of the Florida Lions Club, which led to the formation of the Florida Lions Eye Bank.

## The Institute Opens

With the support of these organizations, as well as private philanthropists, Bascom Palmer Eye Institute opened its doors on January 21, 1962, as the first center in the southeast United States devoted exclusively to the study and treatment of the eye. The new institute, located where Bascom Palmer's Evelyn F. and William L. McKnight Vision Research Center now stands, had 26,000 square feet of space in its four floors.

**J. Lawton Smith, M.D.**, a neuro-ophthalmologist, joined the faculty in 1962, and focused his practice on diagnosing neurological disorders. Recognizing the need to improve physicians' understanding of complex symptoms, the following year, he hosted the nation's first clinical postgraduate educational session devoted to neuro-ophthalmology. The annual scientific meeting caught on at once and continued for more than 15 years. "Unlike most medical conferences where presenters give a lecture illustrated with slides, we had actual patients who could be examined by physicians attending the course," Smith said in a 2010 interview. "Our patients benefited by being able to get multiple opinions on their ophthalmic conditions."

**J. Donald M. Gass, M.D.**, became a faculty member in 1963 and began studying diseases of the macula. He soon became a pioneer in the emerging field of fluorescein angiography, a technique in which intravenously injected dye allows the blood vessels in the eye to be photographed in great detail.

Known as the "Father of Macular Diseases," Gass conceptualized the way in which macular holes form, creating the foundation for surgery on a formerly untreatable condition. In his nearly 40 years at Bascom Palmer, Gass revolutionized the diagnosis and treatment of more than a dozen

### 1965

#### Children's Clinic founded

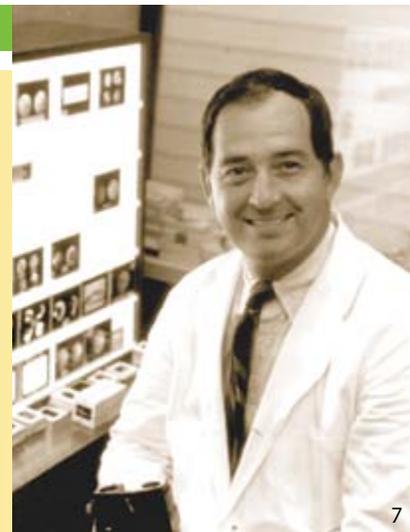
John T. Flynn, M.D., establishes the children's clinic and continues research on retrolental fibroplasia, later known as retinopathy of prematurity, a major cause of blindness in newborns.



### 1966

#### J. Donald M. Gass, M.D.,

pioneers the use of intravenous fluorescein angiography for the diagnosis of intraocular disease, including macular degeneration. He later describes and classifies many of the diseases of the macula.



macular and vitreo-retinal disorders. He also wrote the *Gass Atlas of Macular Diseases*, one of the most important ophthalmological texts. In a fitting tribute to his stellar career, the Association of Cataract and Refractive Surgeons in 1999 named Gass as one of the 10 most influential ophthalmologists of the 20th century.

After joining Bascom Palmer in 1965, **John T. Flynn, M.D.**, saw many pediatric patients and launched a treatment program for amblyopia (“lazy eye”). Flynn also began looking at retinopathy of prematurity (ROP), known in the 1960s as retrolental fibroplasia, a condition that causes abnormal development of blood vessels in the retina of a premature infant. The result can be scarring and retinal detachment, leading to blindness in serious cases.

Using techniques like fluorescein angiography and medical photography of the fundus, Flynn developed a five-stage classification for ROP. “Today, every ROP paper uses those international classifications,” said Flynn. “It’s provided the framework for worldwide research on ROP.”

Also in the early 1960s, Norton launched the Institute’s laboratory research program, which has made numerous contributions to the science of vision through the decades. One of his first hires, **Duco I. Hamasaki, Ph.D.**, focused on neurophysiology, using experimental models to study the eye’s photoreceptors and gaining insights into the workings of the retina. As Hamasaki said, “I came to Bascom Palmer because Dr. Norton had a strong commitment to research, as well as teaching and patient care.”

## Creating a Modern Ophthalmic Hospital

On April 20, 1970, Bascom Palmer retinal specialist **Robert Machemer, M.D.**, performed the world’s first pars plana vitrectomy on a Miami patient who had not seen with his right eye for five years. Until then, ophthalmologists had considered the vitreous body forbidden territory because of the risk of causing a retinal detachment. This breakthrough was a decade-long team effort

“The VISC was one tool that would do three different things. It provided the foundation for doing intraocular microsurgery while preventing the collapse of the eye.”

**Jean-Marie Parel, Ph.D., Ing., ETS-G**

### 1970 Revolutionizes vitreoretinal surgery

Robert Machemer, M.D., performs the world’s first successful pars plana vitrectomy.



### 1970

#### Biophysics Center established

Credited with developing more than 350 ophthalmic devices and instruments, Jean-Marie Parel, Ph.D., ING ETS-G, creates Bascom Palmer’s ophthalmic biophysics center.

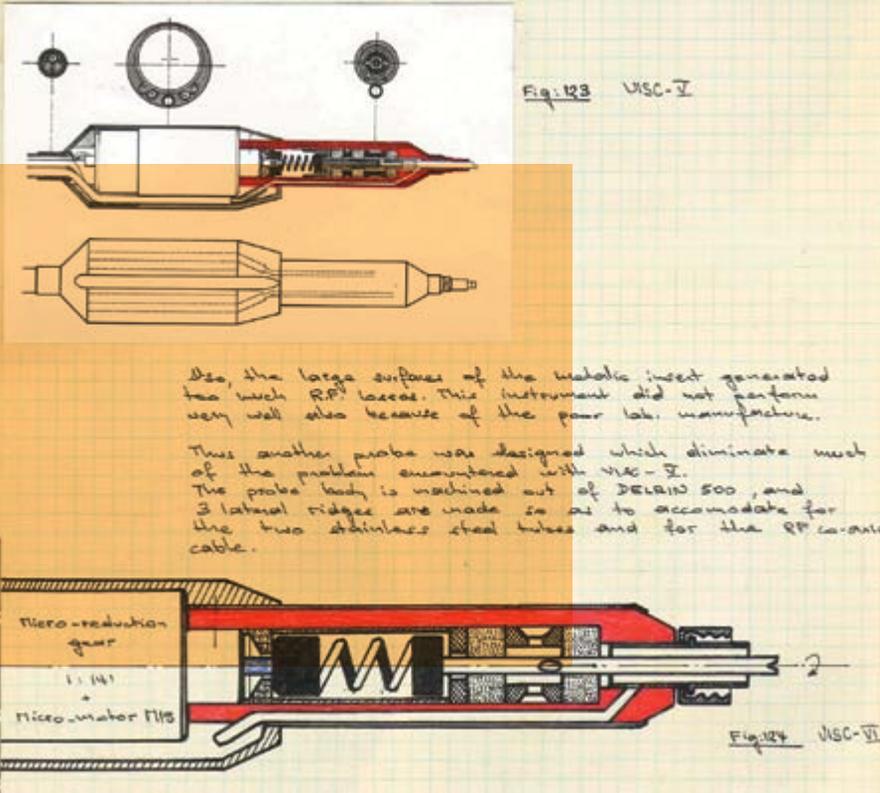
### 1971 FACTS

Number of patients

**32,000**

Surgical procedures

**2,000**



involving Bascom Palmer's clinicians, researchers, biomedical engineers and voluntary faculty.

This successful procedure opened the door to many new types of treatments for retinal tears, detachments and scar tissue, as well as macular holes, vitreous hemorrhage, traumatic injuries and other conditions. "For a young researcher, Bascom Palmer offered an ideal environment,

where credit was given to any individual who made a discovery," said Machemer in a 2007 interview. "It was in this supportive environment that the new art of vitreous surgery evolved."

Back in 1969, Machemer met **Jean-Marie Parel, Ph.D., Ing., ETS-G**, a Swiss-born biomedical engineer who was developing motorized microsurgical instruments, in Melbourne, Australia. They conceived the idea for an instrument (later called the Vitreous Infusion Suction Cutter or VISC) that could be introduced through the pars plana in order to aspirate, cut and remove the diseased vitreous while maintaining the shape of the eye through the continuous infusion of saline solution.

"It was one tool that would do three different things," said Parel, who joined the Institute in 1970. "It provided the foundation for doing intraocular microsurgery while preventing the collapse of the eye." Most importantly, the early prototype VISC made Machemer's surgery a success. "I used that little instrument and it worked," Machemer said. "The patient, who could only see hand movements, saw 20/40 after the operation."

Two decades later, retinal specialist **William E. Smiddy, M.D.**, contributed to the development of vitrectomy for the treatment of macular holes which occur in the central part of the retina. Today vitrectomy enables surgeons to close about 90 percent of macular holes, a condition previously thought untreatable.

## 1972

### Gold Medal findings

Douglas R. Anderson, M.D., and Ralph Kirsch, M.D., collaborate to study the optic nerves of patients with or without glaucoma. The doctors win a gold medal for a presentation of their findings at the American Academy of Ophthalmology.



## 1974

### Richard K. Forster, M.D.,

pioneers the use of intraocular antibiotics for endophthalmitis.



## 1976

### Donor recognition

Anne Bates Leach proudly displays a rendering of the new hospital named in her honor. Leach donates \$4.5 million to the eye hospital that bears her name.

U.S. retina specialists now collectively perform an estimated 170,000 vitrectomies each year, with perhaps three times as many being done in the rest of the world – all thanks to this Bascom Palmer innovation.

Through the decades, Parel and his team have invented or improved more than 350 devices, including the world’s smallest motorized scissors, which were used to cut retinal membranes that obscure vision. At one point, Parel alone had more patents than the entire medical school faculty combined. “Dr. Norton had a view of the future so far reaching it was unbelievable,” said Parel. “He recognized how biophysical engineering could make a huge difference in ophthalmology.”

Meanwhile, clinicians and scientists in Bascom Palmer’s research laboratories were studying glaucoma and a wide range of other vision-impairing conditions.

In the 1970s, **Douglas R. Anderson, M.D.**, was the first to demonstrate an abnormal physiologic process in the optic nerve of glaucoma patients. “We had known that pressure damaged the nerve, but were not sure if it was due to the blood flow or something else,” he said.

“The driving force behind the Bascom Palmer Eye Institute is the high quality of the residents and fellows.”

-Harry W. Flynn, Jr., M.D.

“We demonstrated a blockage of fast axonal transport – a vital process to the neurons. We found that elevation of pressure affected that nerve, and demonstrated that this was secondary, at least in part, to a deficiency in the blood flow.”

In 1973, **Robert W. Knighton, Ph.D.**, joined the research faculty, and began studying how to improve clinical imaging of the tissues of the eye. Knighton was in charge of the clinical electrophysiology research program, exploring a technology then in its infancy. He looked for new ways to improve electroretinograms that provided clearer diagnostic images to ophthalmic surgeons.

## Laser Research Begins

Ophthalmologists began experimenting with lasers in the late 1960s and early 1970s for photocoagulation treatments, using first ruby-red light and later argon blue-green lasers to heat tiny spots on the retina. In 1978, Bascom Palmer’s ophthalmic biophysics center added a laser



**1978**

### Service to veterans

Guy O’Grady, M.D., ran the ophthalmology program at the Miami Veteran’s Administration Hospital for more than 30 years. Bascom Palmer continues to serve America’s veterans.

**1981 FACTS**

Number of patients

**56,000**

Surgical procedures

**5,100**



**1979**

### Curso launched

English-Spanish translation is provided at Bascom Palmer’s popular Inter-American Course in Clinical Ophthalmology, “Curso Interamericano,” attended each year by hundreds of ophthalmologists from Latin America and the Caribbean.





research laboratory led by Parel and Hanspeter Loertscher, the Swiss scientist who developed the infrared YAG laser earlier in the decade. Glaucoma specialist **Richard K. Parrish II, M.D.**, and cornea specialist **Sidney H. Mandelbaum, M.D.**, clinically led the lab, which is credited for the development of a non-contact laser trephination technique for corneal transplantation.

### A New Hospital

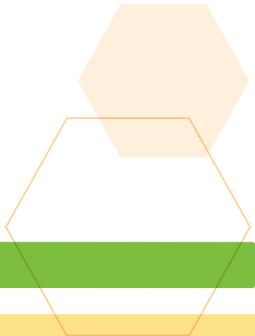
In the early 1970s, Bascom Palmer’s growing reputation in the community led to a steady increase in patient visits and surgery. Norton recognized a need for an eye hospital complete with examination rooms and surgical suites. He again placed a high priority on fund-raising and reached out to several Bascom Palmer patients. One of them was Anne Bates Leach, a resident of Palm Beach whose family had large holdings in the Coca-Cola Company. Leach contributed major funds for the construction of a new seven-story, 220,000-square foot eye hospital on a 1.5-acre site across the street from the original building, that was named in her honor. Bascom Palmer’s original building was renamed the William L. McKnight Research Center. McKnight, retired chairman of the 3M Company and a grateful patient, had donated \$2.5-million for vision research.



A retina specialist whose research has ranged from retinal vein occlusion to the ocular manifestations of sickle-cell disease is **John G. Clarkson, M.D.**, who joined the faculty in 1977. More than a decade later, Clarkson would become chairman of Bascom Palmer Eye Institute, and then dean of the University of Miami School of Medicine. He now serves as the executive director of the American Board of Ophthalmology and maintains his position as a Bascom Palmer faculty member.

Another vitreoretinal specialist, **Harry W. Flynn, Jr., M.D.**, joined the faculty in 1978 beginning an extensive career whose specialties include diabetic retinopathy, macular diseases and endophthalmitis.

With the opening of the new hospital in 1976 and throughout the decade, Bascom Palmer’s residency and fellowship programs attracted a growing number of physicians who wanted to learn from some of the top minds in the field. Flynn adds, “The driving force behind the Bascom Palmer



### 1984 Good Housekeeping Seal of Approval

Bascom Palmer Eye Institute is named the #1 eye hospital in the country by U.S. ophthalmologists.



### 1986 Preventing scar tissue

Richard K. Parrish II, M.D., introduces the drug 5-Fluorouracil (5-FU) to prevent the growth of scar tissue following glaucoma filtering surgery.

### 1986 Attacking cancer

David T. Tse, M.D., introduces the use of intra-arterial chemotherapy to treat lethal lacrimal gland cancer.





Eye Institute is the high quality of the residents and fellows. They are the true engine of Bascom Palmer Eye Institute.”

### New Discoveries

The 1980s was a decade of continued growth in clinical services and education programs, with an emphasis on basic scientific research in several new areas. The arrival of laser surgery opened the door to more effective vision correction and many other types of treatment. Bascom Palmer’s reputation for high quality clinical care continued to grow and, for the first time, the Institute was ranked the #1 eye hospital in the United States in a 1984 survey of ophthalmologists by *Good Housekeeping*.



**1989**

#### Target pressure

Paul F. Palmberg, M.D., Ph.D., coins the term “target pressure” in the American Academy of Ophthalmology’s guide to glaucoma treatment.

**1991**

#### John G. Clarkson, M.D.,

Norton steps down as chairman after 33 years at the helm and Clarkson is named as the second chairman of Bascom Palmer Eye Institute.



**1991**

#### Macular hole surgery

William Smiddy, M.D., Bascom Palmer vitreo-retinal specialist, is among the first physicians to perform surgery to close a macular hole.



## In 1982, Bascom Palmer's clinicians performed approximately 4,000 laser procedures.

At this time, Bascom Palmer's researchers were studying how to use lasers to cut corneal tissue, treat diseased tissue inside the eye and prevent the growth of abnormal scar tissue or tumor cells inside the eye. Meanwhile, Bascom Palmer's clinicians were quick to put this advanced technology to clinical use. In 1982, they performed approximately 4,000 laser procedures. Ophthalmologists began using the excimer laser to reshape the cornea in a procedure known as photorefractive keratectomy.

Lasers helped Bascom Palmer's physicians treat many other types of vision problems. By the early 1990s, the U.S. Food and Drug Administration (FDA) had approved clinical trials with lasers for correcting nearsightedness, farsightedness and astigmatism. FDA approval for LASIK and other refractive surgeries came in 1995.

In 1988, Clarkson directed a multicenter central vein occlusion study, examining a retinal disorder that causes bleeding from retinal blood vessels. Funded by the National Eye Institute (NEI), the study looked at whether early photocoagulation (laser) therapy was the best treatment to prevent further complications and loss of vision.

Meanwhile, Knighton was conducting laboratory research on the retinal nerve fiber layer, which is damaged by glaucoma at an early stage well before the loss of visual sensitivity. His work led the way to better explanations of why some nerve bundles worked better than others. "There is a huge benefit to being a researcher in a clinical department," said Knighton. "You can interact with the physicians and learn what would be most useful to them. Later on, you can see the results of your laboratory work being put into practice in the patients' eye clinics."

After joining the faculty in 1986, **Eduardo C. Alfonso, M.D.**, focused his research and clinical activities on corneal transplants, infections of the cornea and ocular pathology. Alfonso became medical director of the ocular microbiology laboratory and began studying artificial corneas, which could be used for patients awaiting transplants in developing nations where donor tissue is often scarce.

### Advances in Eye Care

Soon after **David T. Tse, M.D.**, joined the Bascom Palmer faculty in 1986, he was faced with an extremely challenging case. A 21-year-old patient was facing a deadly cancerous tumor in the tear-producing lacrimal gland that extended all the way into his brain. "Based on actuarial data at that time, 80 percent of all patients with this lethal orbital tumor would die within ten years," said Tse. "We decided to try something new in order save this young man's life."

#### 1991 FACTS

Number of patients

**103,6200**

Surgical procedures

**8,369**



**1993**

**William W. Culbertson, M.D.,**

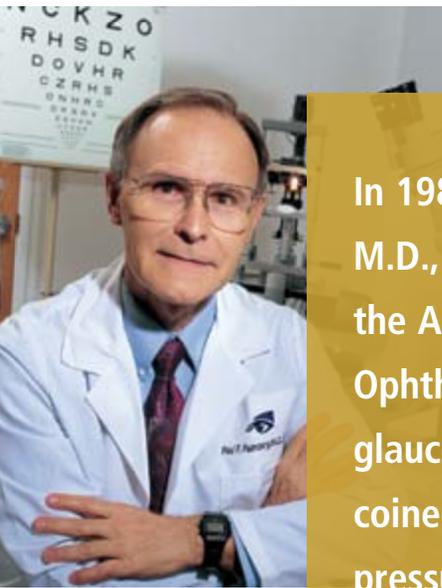
identifies the herpes virus as a cause of acute retinal necrosis, a devastating infection of the retina.

**1993**

**Janet Davis, M.D., M.A.**

leads the fight to save vision in AIDS-related eye disease.





In 1988, Paul F. Palmberg, M.D., Ph.D., helped write the American Academy of Ophthalmology’s guide to glaucoma treatment and coined the term “target pressure” to represent the goal in halting or slowing glaucoma damage.

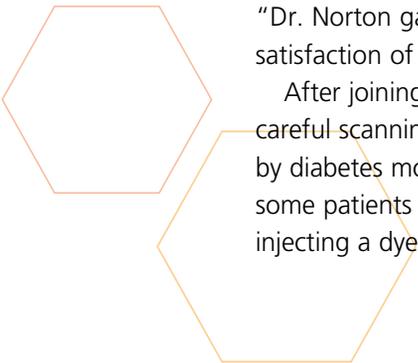
Tse had developed a different approach to deliver high concentrations of chemotherapy directly to the tumor, shrinking it prior to surgery. “This protocol has produced a survival rate of more than 80 percent, a dramatic improvement over surgery alone,” said Tse. Within a year, the patient’s adenoid cystic carcinoma was gone, and 25 years later, he is still alive.

In the early 1980s, Parel began studying the biochemistry of the eye in hopes of finding a better approach to cases of advanced diabetic retinopathy, a condition that occurs when a retinal membrane grows back after surgical removal. Partnering with Parrish, Parel began developing a system to insert a controlled-release drug that inhibits cellular growth called 5-fluorouracil (5-FU) into the eye. Using the

OBC’s resources, Parel created tiny implants made from biodegradable synthetic polymers that released drugs at a constant rate for several days, weeks or months, depending on the desired outcome. This drug-delivery system also held the promise of more effective treatments for some glaucoma patients.

Parrish began using 5-FU for glaucoma surgery in some patients with improved results. He also became involved in tissue culture studies that led to a randomized clinical trial funded by the National Eye Institute called the Fluorouracil Filtering Surgery Study. The study demonstrated that using 5-FU resulted in substantially higher success rates in terms of controlling intraocular pressure. “Dr. Norton gave me the time to do the research,” Parrish said. “That gave me the tremendous satisfaction of contributing to the advancement of glaucoma surgery.”

After joining the faculty in 1980, glaucoma specialist **Paul F. Palmberg, M.D., Ph.D.**, found that careful scanning of photographs would allow physicians to detect early signs of retinopathy caused by diabetes more effectively than with a traditional clinical examination. He also discovered that in some patients color photographs could replace a more invasive diagnostic technique that required injecting a dye into the veins. The findings convinced the National Institutes of Health to launch the



**1994**  
**Bascom Palmer named #1 in USA**

For the first time, Bascom Palmer is named **Best in Ophthalmology** by *U.S. News & World Report*, a recognition that would be repeated in 1994, 1998, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012.



**1994**  
**Richard K. Parrish II, M.D.,**

becomes Bascom Palmer’s third chairman when Clarkson becomes dean of the University of Miami School of Medicine. Parrish edits the *Bascom Palmer Eye Institute Atlas of Ophthalmology*, hailed as “an outstanding contribution to clinical eye care.”



Diabetes Control and Complications Clinical Trial. Palmberg served for a decade on the monitoring committee for the trial, which found that tightly controlling blood sugar – guided by frequent home monitoring by patients with diabetes – significantly lowered the risk of retinal and kidney damage.

Later in the decade, Palmberg helped to clarify the relationship between the level of pressure in the eye and how well a glaucoma patient retains peripheral vision. In 1988, he helped write the American Academy of Ophthalmology’s guide to glaucoma treatment and coined the term “target pressure” to represent the goal in halting or slowing glaucoma damage.

Also in the 1980s, vitreoretinal specialist **Janet L. Davis, M.D., M.A.**, focused on the treatment and disease mechanisms of ocular inflammations and infections. She quickly became a leader in the fight to save sight in AIDS-related eye disease.

After years of studying various aspects of the retina, **William W. Culbertson, M.D.**, made a key discovery in 1993. He identified the herpes virus as a cause of acute retinal necrosis (ARN), a devastating infection that can affect the retina, vitreous and lead to optic neuropathy. His groundbreaking discovery helped advance eye treatment for patients with ARN, including many individuals whose immune systems had been compromised by HIV/AIDS.

## Changing With the Times

Following Norton’s 1991 retirement, Bascom Palmer Eye Institute was led by three chairmen in the 1990s: **John G. Clarkson, M.D.**, (1991-1996), **Richard K. Parrish II, M.D.**, (1996-1999) and **Richard K. Forster, M.D.**, (interim chair 1999-2001). All three made contributions to the Institute’s research program while conducting their own clinical studies. “All of us were hired by Dr. Norton, who charged us with being the best ophthalmologists we could be,” said Clarkson, who led an initiative to expand the institute’s reach beyond Miami by purchasing land in Palm Beach Gardens and opening Bascom Palmer Eye Institute at Palm Beach. “Today, our Institute’s atmosphere encourages exploration and innovation in ways that improve the patient’s welfare.”

On being named chair, Parrish said, “How can we be even better stewards for our patients and students? We must make decisions in the best interest of our patients and acquire new medical knowledge for society at large.” He was the editor for the *Bascom Palmer Eye Institute Atlas of Ophthalmology*, a collaborative effort of the entire faculty published in 2000.

**1999**

**Richard K. Forster, M.D.,**

known for his expertise on ocular infections and external diseases, is named interim chairman of the Institute.



**1999**

**Carol L. Karp, M.D.,** pioneers the use of interferon for treatment of ocular surface squamous neoplasia.

**2001**

**Carmen A. Puliafito, M.D., M.B.A.,** is appointed as chairman. A vitreoretinal specialist, he is an expert in the clinical application of lasers in ophthalmology.



In 2002, the Institute treated more than 180,000 patients and performed more than 8,000 surgical procedures.

Through the decades, Forster focused his clinical and research work on the cornea and external eye diseases caused by fungi, bacteria, viruses and toxins. "I developed a unique practice that encompassed cataract and corneal surgery as well as clinical patient care and research in ocular microbiology and inflammatory diseases," he said.

In the oculoplastics service, **Thomas E. Johnson, M.D.**, helped advance a surgical procedure called optic nerve sheath fenestration, which relieves built-up pressure around the optic nerve that can lead to permanent vision loss and blindness. The results are immediate, often restoring most of the vision that was lost, and halting further vision loss.

Cornea and external disease specialist, **Carol L. Karp, M.D.**, pioneered a medical treatment for ocular surface squamous neoplasia – cancers that grow on the surface of the eye. While studying the effectiveness of interferon on other diseases, Karp became interested in the drug's anti-viral and anti-neoplastic properties. She designed a protocol to study the drug in patients with ocular surface tumors, curing them of their cancer without surgery. "The results were dramatic from the very first patient," said Karp, whose research has produced several landmark articles on the topic.

Bascom Palmer's glaucoma researchers took part in the nationwide Advanced Glaucoma Intervention Study, which examined outcomes of laser and surgical glaucoma treatment.

When he was applying for a glaucoma fellowship at the Institute, **Steven J. Gedde, M.D.**, saw that Bascom Palmer had the best reputation in the country for glaucoma fellowship training. Following his training, Gedde joined the faculty, and today serves as program director of Bascom Palmer's residency program – now ranked as the best training program in the country.

## Achieving Global Leadership

**Philip J. Rosenfeld, M.D., Ph.D.**, had spent two decades seeking more effective treatments for the "wet" form of age-related macular degeneration (AMD). When he began studying this disorder at Bascom Palmer in the 1990s, treatment involved thermal laser photocoagulation and photodynamic therapy to destroy abnormal blood vessels; however, he felt there had to be a better approach.



### 2004 Vision research core grant

Bascom Palmer wins a core grant for vision research from the National Eye Institute of the National Institute of Health.



### 2004 Florida expansion

Residents in Naples and Plantation get access to Bascom Palmer as offices open under the medical direction of Stephen G. Schwartz, M.D., M.B.A., and Kendall E. Donaldson, M.D., M.S..

### 2005 FACTS

Number of patients

**206,811**

Surgical procedures

**10,352**



*Hilda Capó, M.D.*

In early 2005, Rosenfeld conducted a clinical study of Avastin™, a drug that had been approved for use in treating colon cancer. Drawing on his medical insights, Rosenfeld felt Avastin could also be effective in repairing damaged blood vessels in the retina.

“Not only did Avastin halt the progression of wet AMD in his patients, many even regained vision just a few days or weeks after treatment.,” said **Carmen A. Puliafito, M.D., M.B.A.**, Bascom Palmer chairman from 2001 to 2007.

Ophthalmologists around the globe quickly put Rosenfeld’s findings into practice and lauded him for his contributions. “I am honored to receive recognition, but what is even more important is that patients all over the world can now see because of these drugs,” said Rosenfeld.

As the Institute’s reputation continued to grow, patient volume continued to climb. In 2002, the Institute treated more than 180,000 patients and performed more than 8,000 surgical procedures.

## Making Patient Care a Priority

Bascom Palmer’s pediatric service treats approximately 7,000 children annually in its William and Norma Horvitz Children’s Clinic. The outpatient clinic is designed to meet the unique ophthalmic and social needs of children with visual deficiencies including strabismus, amblyopia, retinopathy of prematurity, pediatric glaucoma, retinoblastoma, and rare genetic disorders. Joining **Hilda Capó, M.D.**, in Bascom Palmer’s pediatric service in 2002 was **Craig A. McKeown, M.D.** Bascom Palmer’s comprehensive approach to pediatric eye care – an approach that combines examination, diagnosis, treatment and education, as well as access to other specialists – is a major advantage in treatment outcomes.

**Sonia H. Yoo, M.D.**, joined the corneal and refractive surgery service, and with Culbertson, has investigated the use of lasers to remove cataracts. “As cataract surgery evolves as significant technology, femtosecond laser-assisted cataract surgery is now providing greater precision compared with manual techniques and may be better for patients overall,” said Culbertson, who has been at the forefront of vision correction surgery since its earliest days.



**2005**

### New treatment for macular degeneration discovered

Philip J. Rosenfeld, M.D., Ph.D., introduces use of bevacizumab (Avastin) for the treatment of retinal diseases including usage for age-related macular degeneration, diabetic retinopathy and other venous occlusive disease.

**2005**

### Vision Van travels for Hurricane Katrina care

Bascom Palmer sends three medical relief teams on its Vision Van to Louisiana and Mississippi, offering free eye care to victims of Hurricane Katrina.





*Philip J. Rosenfeld, M.D., Ph.D.*

In the neuro-ophthalmology service, **Byron L. Lam, M.D.**, has studied retinal degeneration and hereditary eye diseases in order to learn more about unexplained visual loss. "Neuro-ophthalmologists have learned not to take anything for granted in the diagnosis process," said Lam, founding director of Bascom Palmer's Center for Hereditary Eye Diseases.

In 2006, Alfonso documented an increase in the incidence of an aggressive form of fungal corneal infection that was related to soft contact lens use. Working with the U.S. Centers for Disease Control, his findings drew extensive media attention throughout the world and significantly reduced the number of new infections.

One of Puliafito's priorities was expanding Bascom Palmer's geographic reach in the South Florida region. In 2004, Bascom Palmer opened patient care centers in Naples (Collier County) with **Stephen G. Schwartz, M.D., M.B.A.**, and **Kendall E. Donaldson, M.D., M.S.**, joining the Insitute as medical directors of the centers, respectively, and faculty members in many specialties were hired for these facilities.

In 2006, a permanent Bascom Palmer campus was developed in Palm Beach Gardens on land that the Insitute had purchased in 1994. The 7.4 acre campus opened with a faculty that now includes glaucoma specialist, **David S. Greenfield, M.D.**, and cornea and refractive specialist **Terrence P. O'Brien, M.D.**

Not only did Bascom Palmer's growth occur in the patient care venue, but dramatic expansion was also taking place in its laboratories. New faculty members were hired and the Evelyn F. and William L. McKnight Vision Research Center was remodeled to support their research activities.

One new scientist was **Valery I. Shestopalov, Ph.D.**, a molecular cell biologist whose research focuses on cataract lens development and bioinformatics as applied to glaucoma. He was one of 57 U.S. researchers honored by President George W. Bush in 2004 with the Presidential Early Career Awards for Scientists and Engineers.

In 2008, **Vittorio Porciatti, D.Sc.**, became vice chair and director of research at Bascom Palmer. A neuroscientist, electrophysiologist and biophysicist, his research focuses on prevention of glaucoma. "In research, Bascom Palmer Eye Institute has grown from half a dozen scientific



### **2006** **Ribbon cutting**

Florida Governor-elect Charlie Crist, University of Miami President Donna Shalala, Pascal Goldschmidt, M.D., dean of the University of Miami Miller School of Medicine, and Puliafito cut the ribbon to dedicate Bascom Palmer Eye Institute at Palm Beach Gardens.

### **2006** **Community service**

Glaucoma specialist, Richard K. Lee, M.D., Ph.D., heads Bascom Palmer's vibrant community service program which includes vision screenings for the underserved.



**2007**  
**Vittorio Porciatti, D.Sc.**, Neuroscientist, electrophysiologist and biophysicist, is named vice chair and director of research.

researchers to more than 25 research faculty members, and we are one of the top ten ophthalmology labs in the country," he said at the time. "My vision is for us to continue moving up in the national research rankings as we contribute to a better understanding of ophthalmic diseases and disorders and the ways to treat and cure them."

### Looking Toward the Future

Today, Bascom Palmer's tradition of innovation is as strong as ever. From genetic therapy and stem cell treatments to new oncology surgical procedures, the Institute's researchers continue to break new ground. "Working collaboratively with our colleagues at the University of Miami, Bascom Palmer now has the most robust genetics research program in the nation," added Alfonso. "That talent has already enabled us to identify specific genes involved in glaucoma and retinal degenerative diseases."

One of the world's leading experts in the field of neuro-ophthalmology, **John R. Guy, M.D.**, is using a five-year \$4.7 million NEI grant to study Leber hereditary optic neuropathy (LHON), an inherited genetic defect that affects the eye's retinal ganglion cells, leading to a progressive loss of central vision. Guy has pioneered gene therapy techniques in the laboratory that will be used to treat people with visual loss from LHON.

Unable to see for nine years, Sharron "Kay" Thornton regained her sight in 2009 thanks to a surgical procedure that was performed for the first time in the United States at Bascom Palmer. The complex series of procedures – called modified osteo-odonto-keratoprosthesis (MOOKP) – involved implanting Thornton's canine tooth or "eyetooth" into her eye as a base for a prosthetic lens.

Corneal specialist **Victor Perez, M.D.**, led a multidisciplinary team that carried out the MOOKP process, which was originally developed in Italy more than 50 years before. In MOOKP, the patient's tooth and surrounding bone are carefully removed from the mouth. An optical lens is inserted into the

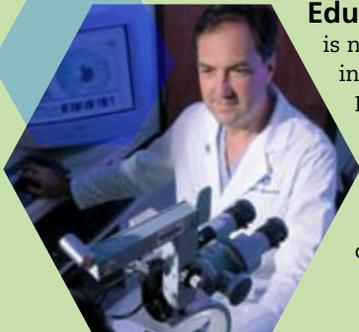
"Working collaboratively with our colleagues at the University of Miami, Bascom Palmer now has the most robust genetics research program in the nation."

*Eduardo C. Alfonso, M.D.*

**2007**

#### **Eduardo C. Alfonso, M.D.,**

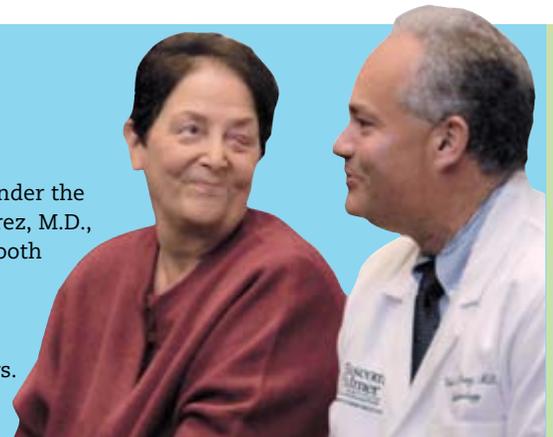
is named Bascom Palmer's interim chairman when Puliafito becomes dean of Keck School of Medicine at the University of Southern California. Alfonso becomes chairman in 2009.



**2009**

#### **Eyetooth Surgery first in USA**

Bascom Palmer team, under the direction of Victor L. Perez, M.D., performs the first "eyetooth surgery" in the United States, restoring vision to a woman who had been blind for nine years.





extracted tooth, which is then implanted under the patient's skin to create a biointegrated unit the body will accept.

Like many Bascom Palmer patients through the years, Thornton was thrilled to regain her vision. Within a few months following her surgery, her vision was 20/30 with glasses for distance and 20/25 with glasses for near vision. "I'm so thankful that the doctors at Bascom Palmer never gave up on me," she said. "They kept searching for an answer and they found one. This truly is a miracle."

### Outreach Around the World

Bascom Palmer's outreach extends far beyond South Florida to Asia, Africa, Europe, and Latin America. Faculty members volunteer to serve on numerous medical missions around the world; medical residents also participate in missions through a medical service elective added to their educational curriculum; and free vision screenings are conducted throughout South Florida.

Bascom Palmer's Vision Van program also improves access to care for indigent, underserved and uninsured populations who are at risk for eye disease, at no cost. The results include the promotion of proper eye care and the provision of treatment for various conditions some of which, if left untreated, could lead to blindness.



#### 2010 Haiti relief

In January, Bascom Palmer medical teams travel to Haiti, providing free eye care to victims of the devastating earthquake.

#### 2011 FACTS

Number of patients  
**244,000**

Surgical procedures  
**12,000**



In 2006, Bascom Palmer Eye Institute at Palm Beach Gardens moved to a new 7.4 acre, \$22 million campus, that included the Maltz Center and the Frankino Surgery Center.

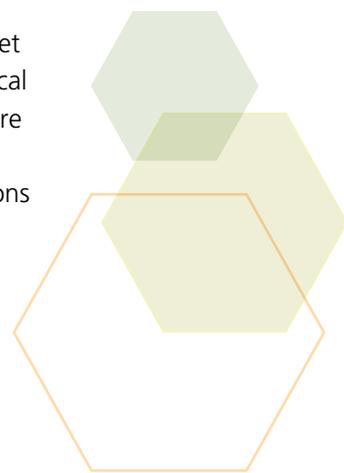
## Clinical Eye Care on Wheels

When the Vision Van was donated to the Institute by the Josephine Lieser Foundation in 2004, it was soon realized that the 40-foot mobile, self-contained eye clinic could travel to areas in need of emergency medical services. In 2005, days after Hurricane Katrina devastated the Gulf Coast of the United States, medical relief teams of Bascom Palmer's doctors and ophthalmic technicians traveled to the affected areas and dispensed more than \$100,000 worth of eye medications, prescription glasses and contact lenses to those in need at no cost. While the Vision Van was unable to travel to Haiti following its devastating earthquake due to the destruction of Haiti's major roadways, Bascom Palmer assembled response teams that traveled to the island nation bringing ophthalmic equipment and supplies and offering general medical aid and eye surgery.

Most recently, the Vision Van traveled to Japan and remained in the hard-hit Sendai region for seven months, so Japanese ophthalmologists could use the van to treat patients in remote areas hardest hit by the horrific tsunami and earthquake.

Speaking of Bascom Palmer's decades-long commitment to the dissemination of medical training and patient care, founding chairman Edward Norton said at his retirement, "Bascom Palmer Eye Institute is a testimonial to human ingenuity, energy and commitment, expressed by example more than words." current chairman Eduardo Alfonso adds, "We will continue to emulate the example set by Dr. Norton. Using our medical expertise in a sustainable manner to provide compassionate medical care to help victims of natural disasters, and underserved populations, and patients of this and future generations will remain the highest priority for the faculty and staff of Bascom Palmer Eye Institute.

Going forward, Bascom Palmer will expand its facilities and its human capital to find fresh solutions for the needs of an aging population and the challenges of health care reform. It will also continue to focus on eye care from a global perspective and significantly contribute to life-changing and sight-saving advancements. As Bascom Palmer Eye Institute looks ahead to the next 50 years, it will continue to be guided by the words of its founder, **Edward W.D. Norton, M.D.**, who said, "The patient's needs always come first." 



### 2011 Vision Van goes to Japan

Bascom Palmer's Vision Van is sent to Japan for local doctors to use as they offer eye care to the victims of the island's horrific tsunami and earthquakes.



### 2011 Going forward

The next generation of OCT imaging technology, led by Jianhua (Jay) Wang, Ph.D., may hold the key to diagnosing dry eyes, one of the most common but least understood eye disorders.



2012

### 50 Years... Second to None

Bascom Palmer celebrates its 50th anniversary with a scientific meeting, attended by 600 ophthalmologists from around the world.

# Bascom Palmer Eye Institute's 50th Anniversary Scientific Meeting Yields Announcements of Research Breakthroughs and Goals for **new clinical trials**

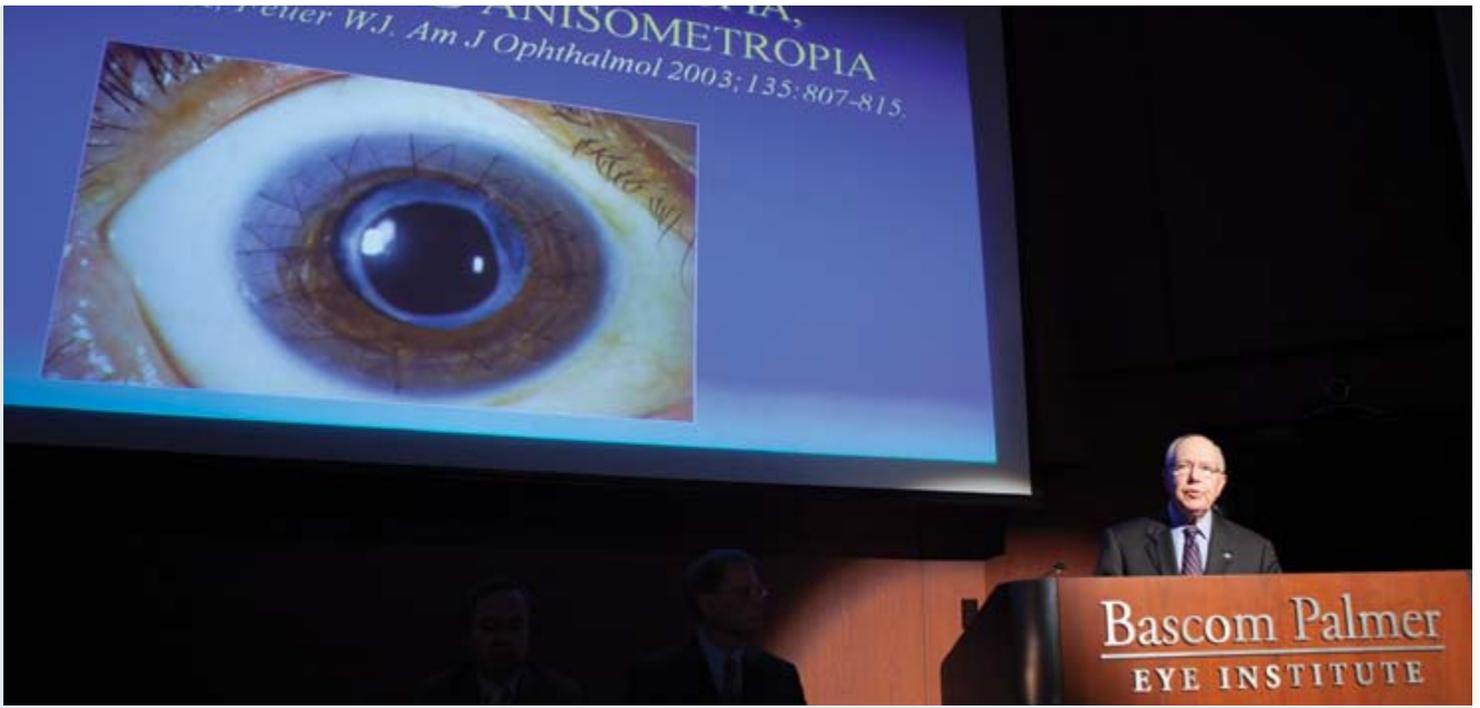
Bascom Palmer Eye Institute began its golden anniversary year by hosting a global scientific meeting February 2–4, 2012 in Miami. Nearly 650 ophthalmologists from around the world, including 300 Bascom Palmer alumni, attended. With 180 distinguished presenters, topics discussed ranged from research breakthroughs in cataract surgery and gene therapy, to targeted goals of new clinical trials regarding the treatment of glaucoma and optic nerve diseases.



"The tremendous volume of information presented at the Scientific Meeting created a unique collaborative platform, which many of the world's ophthalmologists can now use to explore new ways of approaching patient care and vision research," said **Eduardo C. Alfonso, M.D.**, chairman of Bascom Palmer Eye Institute. "From advanced medical and surgical treatment options to new trends in refractive surgery and oculoplastics, didactical presentations and interactive panel discussions covered the gamut of both remarkable achievements and exciting possibilities within the ever-changing field of ophthalmology."

A highlight of the meeting's research presentations focused on ophthalmology now entering the era of treating hereditary retinal degeneration — a goal believed impossible only a few years ago. The first human trial of gene replacement therapy for a molecular subtype of Leber congenital amaurosis (a form of hereditary blindness) is now underway via a team of leading academic institutions across the nation. The trial is being led by Bascom Palmer former faculty member, **Samuel G. Jacobson M.D., Ph.D.**, who is currently a professor of ophthalmology at the Scheie Eye Institute. It is hoped that gene therapy will restore vision in children with congenital blindness, and improve vision of adults with advanced stages of the disease.

The oculoplastics session covered a broad range of topics from cosmetics to orbital malignancy. Three lectures highlighted significant advances in the field of oculoplastics from work that originated at Bascom



Palmer Eye Institute. **David T. Tse, M.D.**, professor of ophthalmology, described an innovative technique to remove optic nerve glioma (a tumor of the optic nerve that affects mostly children and can lead to blindness if not addressed quickly). The technique preserves vision in the fellow eye and retains eyelid function in the affected eye.

Additionally, he reported dramatic results of a recent study he conducted, treating 19 patients via a novel approach he created more than 23 years ago called intra-arterial cytoreductive chemotherapy. This innovative method is used to treat adenoid cystic carcinoma of the lacrimal gland (an often lethal orbital malignancy affecting the gland that produces tears). Results of his study demonstrated survival rates of 94 percent at both five- and ten-year follow-ups, compared to 43 percent and 29 percent respectively in patients managed by conventional therapies. Two of his patients treated with this technique have had more than 15 years of disease-free survival, one of them for 22 years.

The three-day meeting concluded with a session titled "Historical Perspectives." This presentation was given by eight ophthalmologists, all of whom share strong, long-term ties to Bascom Palmer Eye Institute. Together, they shared recaps and memories of the Institute's founding and legacy. Among those highlighted were **Bascom H. Palmer, M.D.**, for whom the Institute was named; **Edward W.D. Norton, M.D.**, who served as Bascom Palmer's chairman for more than 30 years; and **Victor T. Curtin, M.D.**, one of Bascom Palmer's founding ophthalmologists. 

### Current clinical trials and research efforts shared at the meeting included:

- Multiple gene variants, recently identified via two ongoing clinical trials, may help explain why some patients have elevated eye pressure following use of the drug Triamcinolone® for treatment of such conditions as swelling of the retina due to diabetes and retinal vein occlusions.
- Results of a study done by Bascom Palmer showed a rate of far less than one percent of endophthalmitis (severe inflammation of the internal coats of the eye usually caused by infection) following anti-VEGF (vascular endothelial growth factor) injections for age-related macular degeneration. Notably, there was no significant difference in the rate of infection following injections of either Lucentis® or Avastin®.

To schedule an appointment with a Bascom Palmer specialist, please call 1-888-845-0002 or visit [bascompalmer.org](http://bascompalmer.org)



## Synergy of Expertise Drives New ocular oncology center at Bascom Palmer

**Imagine the unsurpassed care** of a trio of world-renowned ocular oncologists who combine their clinical knowledge and pioneering research breakthroughs in a unique collaboration known as the Bascom Palmer Eye Institute Ocular Oncology Center. This is now a reality. The recent arrival of **J. William Harbour, M.D.**, at Bascom Palmer, who joins ocular oncologists **Carol L. Karp, M.D.**, and **David T. Tse, M.D.**, means patients from the community, around the country and the world will now benefit from the Institute's "one stop management."

"One of the most important reasons I came to Bascom Palmer is the opportunity to work with Dr. Karp and Dr. Tse. Each of us has different highly specialized training that really gives us a powerful and diverse skill set to handle any

type of tumor in or around the eye," said Harbour, who left a distinguished professorship at Washington University to become director of the Ocular Oncology Center, professor of ophthalmology at the University of Miami Miller School of Medicine, and holder of the Mark J. Daily, M.D. Chair.

"We collaborate on a daily basis," said Tse, the Dr. Nassar Al-Rashid Chair in Ophthalmic Plastic, Orbital Surgery and Oncology. "If someone has a lesion on the surface of their eye (the cornea) — that is Carol's domain; if it invades the orbit (the eye socket) or the eyelid that is where I would come in to help; and if they have a tumor that enters or arises from inside the eye, that is Bill's specialty. There is a unique blend of expertise to optimize patient care."

"I cannot think of any other center in the world where you have three internationally-recognized

experts with fellowship training in each of these three separate areas," Harbour said.

In his role as vice chairman for translational research, Harbour not only brings his expertise to care for patients with intraocular tumors, but a drive to connect research and clinical discoveries in a practical way that improves knowledge and patient care, known as translational medicine. His landmark discoveries revealing the genetic and molecular mechanisms behind uveal melanoma, for example, will be studied in other cancer patients to improve their outcomes as well. "Bill's leadership will provide an innovative environment that fosters high impact, clinically-oriented research discoveries that can be rapidly translated to the patient," said Tse.



"I'm thrilled that Dr. Harbour is here at Bascom Palmer. He is a tremendous leader in this field," said Karp, professor of ophthalmology. Patients with complex presentations will benefit the most from this new collaboration, Karp predicted. "It's easy for us to consult, discuss and brainstorm about how best to treat our patients."

"Together we have great synergy," Karp continued. "Our patient care is comprehensive and second-to-none. But now we also have the potential to rapidly improve patient care and outcomes through molecular research." For example, Karp and her colleague Anat Galor, M.D., assistant professor of clinical ophthalmology at Bascom Palmer, are collaborating with Harbour to develop

individualized, molecularly-guided treatment for conjunctival tumors. "We are all very excited about the new advances in patient care that will come from these studies," Karp added.

Although the trio has a history of important research discoveries, the pace of new findings is likely to accelerate. Tse said, for example, "We are also developing a unique, multi-disciplinary environment in which patients will receive compassionate, state-of-the-art care through the use of personalized genomic medicine, advanced imaging and innovative treatments to maximize benefits and minimize side effects.

Harbour also comes to Bascom Palmer because of the unique opportunity to be on the cutting edge of new diagnostic and therapeutic innovations. "When companies develop new imaging devices, new therapeutics or new lasers, they usually come to Bascom Palmer first to implement them into patient care. So it's an exciting place to be."

Ultra-high resolution optical coherence tomography (UHR-OCT) is a perfect example, Harbour said. The UHR-OCT, custom built by **Jay Wang, M.D., Ph.D. M.S.**, associate professor of ophthalmology and electrical and computer engineering at Bascom Palmer, delivers images with resolution of about two microns. "Dr. Karp pioneered its use for ocular surface tumors and this will likely change the way these tumors are evaluated."

Karp said the UHR-OCT device permits a non-invasive "optical biopsy" of a tumor." This has improved the way we manage ocular surface tumors. In addition to aiding diagnosis, I can make sure the cancer is completely eradicated before we stop treatment." With the pace of advances in patient care accelerating through this new synergistic mixture of clinical expertise and molecular research, managing our eye tumor patients is likely to change dramatically and Bascom Palmer will be on the cutting edge of this exciting time. 

*To schedule an appointment to see one of our ocular oncology specialists, call 888-845-0002 or visit [bascompalmer.org](http://bascompalmer.org)*



Bascom Palmer  
Opens New Center  
for Treatment of  
**severely dry  
eyes and  
damaged  
corneas**

State-of-the-art diagnosis and treatment of patients with ocular surface disorders has significantly improved thanks to innovations at the new Bascom Palmer Ocular Surface Center.

**Patients with ocular surface conditions** which, until recently, were very difficult if not impossible to manage, can now seek help among the center's myriad of treatment options. Ocular surface disorders include dry eye syndrome, meibomian gland dysfunction, allergies, scarring from glaucoma medications, chemical burns, thermal burns, and immunological conditions such as Mucous Membrane Pemphigoid and Sjogren Syndrome

Ocular surface diseases can severely affect eyesight and quality of life and many times patients' cases go undiagnosed and undertreated, due to a lack of understanding of symptoms and inaccurate evaluation. And as people are living longer, these disorders are becoming more prevalent.

The new center, under the direction of **Victor L. Perez, M.D.**, associate professor of ophthalmology, microbiology and immunology and cornea and external diseases specialist, is one of just six such centers in the United States and is devoted to the diagnosis and treatment of patients with corneal scarring, severe dry eyes, and immunosuppression challenges. A novel concept of Bascom Palmer's new Ocular Surface Center is the collaboration between physicians and scientists to discover and integrate both clinical and research advances and—in real time—translate these findings to help patients with ocular surface disorders.

Some people come to Bascom Palmer suffering from severe dry eyes after receiving a bone marrow transplant to combat their cancer. "Sadly enough, they develop this immune rejection, and guess what? One of the main organs affected is the eye," said Perez. The clinician-researchers at the center devise effective strategies to combat immune rejection following corneal transplantation. Many of these patients come to Bascom Palmer after traditional therapies fail elsewhere, Perez said. Offering additional, individualized therapies can make a big difference in their outcome and quality of life.



*Victor Perez, M.D.*

One of the benefits of a very close link between research and clinical care is the ability to quickly adapt and innovate as new discoveries come to the forefront. Some dry eye patients, for example, are candidates for another innovative technology developed at Bascom Palmer along with researchers at the Boston Foundation for Sight. The Prosthetic Replacement of the Ocular Surface Environment (PROSE) is a special type of contact lens that protects and rehabilitates the surface of the eye. PROSE can protect a scarred eye surface, maintain a well-lubricated eye microenvironment and correct vision deficits. Additional non-surgical therapies include the Lipidview/Lipidflow to screen and diagnose for evaporative dry eye in patients with meibomian gland dystrophy and to treat it in an efficient manner and serum tears treatments, established at Bascom Palmer, use serum from the patient's own blood sample to prepare tears that are effective in the care of their dry eye symptoms and improve vision.

The use of patients' own cells for the treatment of ocular surface diseases has been a successful modality of treatment. In fact, Bascom Palmer performed the first autologous transplant of limbal stem cells from the fellow eye of a patient with stem cell deficiency. "New technology in stem cell research has opened broader doors for the use of cell-based therapy for eyes. In collaboration with the University of Miami Interdisciplinary Stem Cell Program, we are developing a stem cell program," said Perez. This groundbreaking program will expand the use of this innovative eye therapy to regenerate damaged tissue and establish lost function and vision health.

Another cutting-edge technology is the modified osteo-odonto-keratoprosthesis for severe corneal scarring. This complex surgical procedure, carried out over six months in several procedures, employs a patient's own tooth and bone to form a graft to position an artificial lens on the surface of the eye. Buoyed by its initial success, Perez now plans to "take the technology to the next level" and develop a plastic tooth that provides the same benefits without requiring the patient's tooth and bone.

Overall, Perez is optimistic about the Ocular Surface Center and its future. "It's very exciting." Being surrounded by great colleagues at the center and the University of Miami will allow him "to tackle these disorders and tackle them the right way." 

*To schedule  
an appointment with  
our Ocular Surface Center  
specialists, please call  
954-465-2700.*

# faculty continues expansion

Bascom Palmer Eye Institute at UHealth, part of the University of Miami, is pleased to welcome these new faculty members. These new physicians have increased the size of our full-time faculty to 65 physicians and 21 investigators.



**GUILLERMO AMESCUA, M.D.**, a corneal and external disease specialist, joined the faculty as assistant professor of clinical ophthalmology. Amescua earned a medical degree from Ignacio A. Santos School of Medicine.

He was a research scholar in ocular immunology at the Cole Eye Institute of the Cleveland Clinic and he completed an ophthalmology residency at the University of Pittsburgh. He also completed two fellowships, one in cornea and refractive surgery and another in cornea, ocular surface and uveitis both at Bascom Palmer Eye Institute at the University of Miami Miller School of medicine. His clinical specialties are cataracts, uveitis, corneal and external diseases, corneal transplant, ocular surface diseases, and keratoprosthesis (artificial cornea). His research interests include inflammatory conditions of the cornea and ocular surface and the immunological mechanism involved in high-risk corneal transplantation. He treats patient at Bascom Palmer's Miami and Plantation locations.



**KARA M. CAVUOTO, M.D.**, a pediatric ophthalmology specialist joined the faculty as assistant professor of clinical ophthalmology. She received her bachelor of science degree, cum laude, from the University of

Miami and her medical degree from the University of Miami Miller School of Medicine.

She completed her ophthalmology residency and a fellowship in pediatric ophthalmology at Bascom Palmer Eye Institute at the University of Miami Miller School of Medicine. Her clinical specialties are pediatric ophthalmology and adult strabismus. Her research interests include pediatric eye disorders, complex strabismus in adults and children, surgical techniques in strabismus, and adjustable sutures for adult strabismus correction. She is available for consultation at Bascom Palmer in Miami.



**TA CHEN PETER CHANG, M.D.**, joined the Bascom Palmer faculty as assistant clinical professor of ophthalmology. Specializing in glaucoma, pediatric ophthalmology and cataracts, Chang received a bachelor of science, magna

cum laude, from Pomona College and a medical degree from Johns Hopkins University School of Medicine. He completed his ophthalmology residency at Stanford University, and two fellowships, one in glaucoma at Bascom Palmer Eye Institute and one in pediatric ophthalmology and strabismus at Vanderbilt Eye Institute. His research interests focus on pediatric cataract and pediatric glaucoma surgical techniques, outcomes of ocular pharmacology in the pediatric population, trabecular meshwork outflow in Marfan's syndrome patients, surgical techniques in complex pediatric cataract and glaucoma, visual development in pediatric glaucoma, and binocular visual functions in patients with glaucomatous visual field loss. He sees patients at Bascom Palmer's Miami and Naples locations and he staffs a Saturday morning clinic for pediatric glaucoma patients.



**RAQUEL GOLDHARDT, M.D.**, joined Bascom Palmer Eye Institute as assistant professor of clinical ophthalmology in 2010 and she specializes in macular diseases, diabetic retinopathy, retinal degeneration, macular

degeneration and related disorders. Goldhardt graduated from the Federal University of Rio Grande do Sul with a medical degree and completed her first ophthalmology residency at Santa Casa Hospital and a second residency in ophthalmology at Tulane University where she served as chief resident. She completed three fellowship training programs — one in uveitis and AIDS at the Federal University of Sao Paulo, one in uveitis at Jules Stein Eye Institute at UCLA, and medical retina at Bascom Palmer. She conducts research into the treatment and disease mechanisms of ocular inflammations and infections, retinal vascular occlusions, diabetic retinopathy, macular degeneration, ocular imaging, and management of complications of cataract surgery. She is available for consultation at the Miami Veterans Affairs Medical Center.



**J. WILLIAM HARBOUR, M.D.**, joined the faculty as professor of ophthalmology and vice chairman for translational research. He specializes in ocular oncology/intraocular tumors, vitreo-retinal diseases and surgery and

retinoblastoma. Harbour has a bachelor of science degree from Texas A&M University and a medical degree from Johns Hopkins University School of Medicine. He completed a student fellowship at the National Institutes of Health through the Howard Hughes Research Scholars Program. His ophthalmology residency was completed at Wills Eye Hospital and he completed three fellowships: a vitreo-retinal fellowship at Bascom Palmer Eye Institute, an ocular oncology fellowship at the University of California in San Francisco, and a cancer research fellowship at Washington University School of Medicine. He focuses his research into high-risk uveal melanoma and retinoblastoma, and the use of genetic and genomic methods to

develop new diagnostic, prognostic and therapeutic technologies for eye cancers. Harbour is available for consultation at Bascom Palmer's Miami, Palm Beach Gardens and Naples locations.



**HONG JIANG, M.D., PH.D.**, a neuro-ophthalmologist, joined the Bascom Palmer faculty as assistant professor of clinical ophthalmology and neurology. She earned a medical degree at Zhejiang University School of Medicine in China and a

doctorate in neuroscience at the University of Hong Kong. She completed a neurology residency at the University of Miami Miller School of Medicine. She completed two fellowships – the first in medical genetics at the University of Rochester and the second fellowship in neuro-ophthalmology at Bascom Palmer. She conducts research into functional retinal imaging for the study of neuro degenerative diseases. She is available for consultation at Bascom Palmer in Miami.



**ZOHAR YEHOShUA, M.D., M.H.A.**, joined the faculty in 2012 as assistant professor of clinical ophthalmology. He earned a bachelor of medical science from Hebrew University of Jerusalem, a medical degree from Hebrew

University Hadassah School of Medicine and a masters in health administration from Ben Gurion University School of Business and Management. He completed an ophthalmology residency at Kaplan Medical Center, Hebrew University Hadassah School of Medicine and two fellowships at Bascom Palmer Eye Institute in medial retina and a research fellowship in macular diseases. He focuses his clinical practice on macular diseases, diabetic retinopathy, retinal vascular occlusion, retinal degeneration, macular degeneration, and related disorders. He conducts research into age-related macular degeneration, diabetic retinopathy and retinal imaging, and he treats patients at Bascom Palmer's Miami, Plantation, and Palm Beach Gardens locations.

*To schedule an appointment with a Bascom Palmer specialist, please call 1-888-845-0002 or visit [bascompalmer.org](http://bascompalmer.org)*



## Bascom Palmer **doubles space** in Plantation, Grows in Miami, and Sets Sights on Naples Expansion



*Dr. Kendall Donaldson, medical director of Bascom Palmer's new center in Plantation*

### New Plantation space enhances patient access

Bascom Palmer Eye Institute expanded considerably in 2012 and 2013. Our patient care center in Plantation, Florida, moved to a nearby facility, doubling in space to 13,000 square feet. The new center is housed within UHealth at Plantation which offers care from Sylvester Comprehensive Cancer Center, cardiology, otolaryngology, sports medicine, orthopaedic, and neurology specialists.

Bascom Palmer physicians in Plantation include experts in glaucoma, corneal diseases, cataracts, vitreo-retinal diseases, neuro-ophthalmic disorders, uveitis, ocular tumors, and aesthetics and ophthalmic cosmetic surgery, and can perform a range of surgical services. "The Plantation center also provides access to the latest clinical trials, enabling our patients to receive the

same cutting-edge treatments offered at our locations in Miami, Palm Beach Gardens and Naples," said **Kendall Donaldson, M.D., M.S.**, medical director of Bascom Palmer Eye Institute at Plantation.

### Cure-focused orbital research center planned

The **Nasser Al-Rashid Orbital Vision Research Center** is slated to open in Miami in 2015 and will be the first cure-focused orbital research laboratory of its kind, will assemble a broad array of research scientists and clinicians who will concentrate on finding novel therapies for orbital cancers and traumatic optic nerve injuries, as well as developing clinical applications for stem cell and biomedical studies. The center, which will include a wet laboratory and an instructional resources center, also will train the next generation of orbital surgeons. The center's underlying goal is nurturing a scientific



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with a Bascom  
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*Nasser Al-Rashid Orbital Vision Research Center rendering*



*Bascom Palmer Eye Institute at Naples*

mindset for multidisciplinary innovation and collaboration by removing barriers and promoting interactions among investigators from different disciplines.

“We are determined to provide the scientific knowledge that today’s physicians need, but also to ingrain in our students the life skills that will enable them to become well-rounded, empathetic physicians,” said **David T. Tse, M.D.**, professor of ophthalmology and the Dr. Nassar Al-Rashid Chair in Ophthalmic Plastic, Orbital Surgery and Oncology.

## Expansion underway for Florida’s West Coast

Further growth is planned for the west coast where the purchase of 1.5 acres at the northeast corner of U.S. 41 and Park Shore Boulevard in North Naples will allow us to construct a new, freestanding, treatment and surgery center that also includes facilities for research and post-graduate training.

Since 2004, Bascom Palmer Eye Institute has been serving the Gulf Coast from a leased 3,000-square-foot space at NCH Medical Plaza in downtown Naples which will remain open during the construction of the new center. Patient visits have more than quadrupled since the Naples center opened.

“Our expanded facility will encompass more than 20,000 square feet,” said **Stephen G. Schwartz, M.D., M.B.A.**, medical director of Bascom Palmer Eye Institute at Naples, which already employs three full-time physicians and seven physicians who travel from Bascom Palmer in Miami to see patients monthly.

As Collier County Commission Chairman Fred Coyle stated to *The Naples Daily News*, Bascom Palmer “will attract a lot of attention here.” 

# Palm Beach



*Dr. Eduardo Alfonso, Hermé de Wyman Miro, and Ari Rifkin*

## Bascom Palmer Doctors Share Updates with Palm Beach Friends

### Hundreds gathered

at the Mar-a-Lago Club in Palm Beach, Florida to listen to Bascom Palmer specialists provide the latest on cellular regeneration, eye cancer and macular degeneration. Bascom Palmer Eye Institute Chairman and Professor, **Eduardo C. Alfonso, M.D.**, welcomed all to Bascom Palmer's Palm Beach Friends Medical Forum and Luncheon where guests learned of the most recent ophthalmological advances.

**J. William Harbour, M.D.**, professor of ophthalmology and renowned eye cancer specialist, spoke about various forms of ocular cancer and a genetic test he developed to predict outcomes in patients who have ocular melanoma. Associate professor of ophthalmology, **Andrew A. Moshfeghi, M.D., M.B.A.**, addressed the current treatments available for macular degeneration and how these have improved significantly in recent years thanks, in part, to the work of Bascom Palmer's researchers and physicians. **Jeffrey L. Goldberg, M.D., Ph.D.**, associate professor of ophthalmology, explained that his research laboratory is investigating how stem cells can be used for cellular regeneration for the treatment of several eye diseases including glaucoma and macular degeneration.

The 2013 Palm Beach Friends Medical Forum and Luncheon was chaired by ardent Bascom Palmer supporter, Ari Rifkin.



*Trudy Brekus and Dr. Masako O'Brien*

# Friends

## Medical Forum and Luncheon



Speakers Dr. Andrew Moshfeghi, Dr. William Harbour, Dr. Eduardo Alfonso, and Dr. Jeffrey Goldberg



Tamar and Milton Maltz



Barbara Johnson, Francis Mullin, and Doris Hastings



Barney and Monnie Donnelley and Drs. Masako and Terrence O'Brien

## The 32nd annual

Evening of Vision, celebrating Bascom Palmer Eye Institute's 1962 founding, took place at The Breakers in Palm Beach, Florida. Gala chairpersons Dr. Eduardo and Molly Alfonso and Drs. Terrence and Masako O'Brien greeted guests for this 50th anniversary extravaganza. Every aspect of the affair, from décor to music and cuisine, was reminiscent of the '60s. Following remarks from Dr. Alfonso, Bascom Palmer Chairman, and Dr. O'Brien, Director of Bascom Palmer's Palm Beach Refractive Surgery Service, and a Twist dance contest, the evening continued with dinner and dancing. Honorary chairpersons were Michele and Howard Kessler, Bill and Nancy Rollnick, and Patrick Park.

Guest gift bags were provided by Elizabeth Arden, corporate sponsor of the gala.

Gala proceeds support Bascom Palmer Eye Institute, which plans to open a freestanding retina center on its Palm Beach Gardens campus in the fall.

# Evening of Vision GALA 2013



*Helen and Walter Ross*



*Honorary Gala Chairmen  
Bill and Nancy Rollnick,  
Patrick Park*



*Doris Hastings and Anthony Fleming*



*John Brown and Hermé de  
Wyman Miro*



# Bascom Palmer supporters enjoy retro evening



*Left: Dr. Eduardo Alfonso, Ari Rifkin, Cameron Neth, and Molly Alfonso*



*Drs. Terry and Masako O'Brien with Ambassador Nancy Brinker*

# THANK YOU

FOR KEEPING US

NUMBER

1

For the **tenth** consecutive year, the University of Miami Miller School of Medicine's Bascom Palmer Eye Institute is the nation's **No. 1 ophthalmology program** in *U.S. News & World Report's* annual Best Hospitals rankings.

Now in its 24th year, *U.S. News' Best Hospital's 2013-14* edition is intended to help steer patients to hospitals with strong skills in the procedures and medical conditions that present the toughest challenges. Since the rankings began in 1990, Bascom Palmer has been ranked #1 or #2 in ophthalmology every year.

At the forefront of innovation in ophthalmology for the past 50 years, Bascom Palmer's doctors and scientists are recognized as international leaders in their fields of expertise in every ophthalmology subspecialty, including macular, retinal and optic nerve diseases, cataracts, eye infections, eye cancers, and eye diseases in children.



## Our excellence also stems from more than **1,000 alumni** who deliver

superior eye care to patients all over the world, and from the colleagues around the globe with whom we collaborate for research endeavors and clinical trials.

And thank you to Bascom Palmer Eye Institute's faculty and staff. It is your caring and commitment that has made us #1, year after year.

We are honored that ophthalmologists around the country continue to recognize Bascom Palmer for its performance and we look forward to upholding these standards for the next 50 years.





UNIVERSITY OF MIAMI HEALTH SYSTEM

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# Bascom Palmer Once Again Ranked #1 in Ophthalmology 10th year in a Row

by *U.S. News & World Report!*



For the tenth year in a row, and the twelfth time, Bascom Palmer Eye Institute of the University of Miami Miller School of Medicine has been ranked the nation's best in ophthalmology in *U.S. News & World Report*.

*U.S. News* ranks the top hospitals in 16 medical specialties. The annual guide is a resource for consumers who seek optimal care in the diagnosis, treatment, and management of difficult medical problems.