



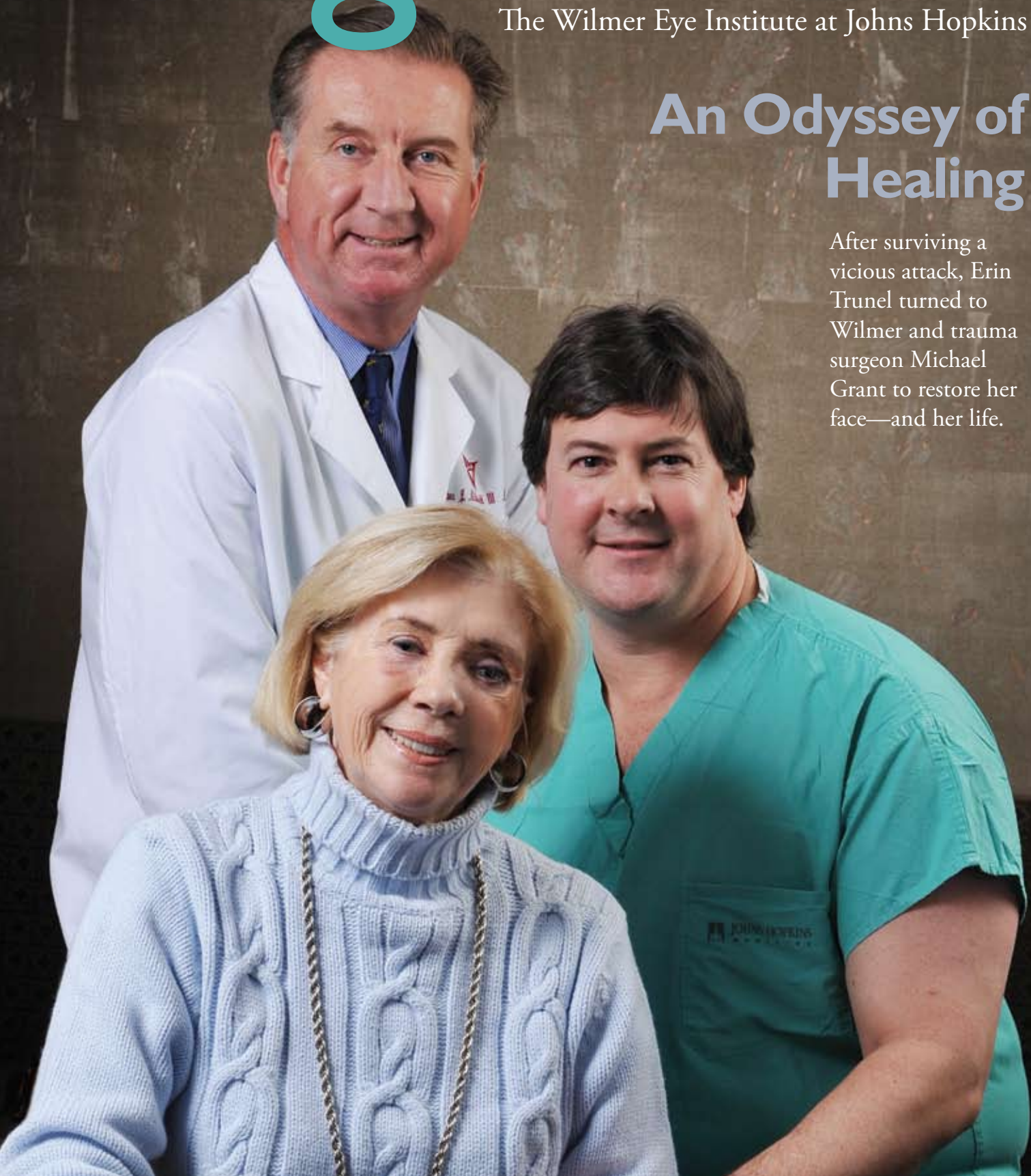
■ SPRING 2009

# SightLine

The Wilmer Eye Institute at Johns Hopkins

## An Odyssey of Healing

After surviving a vicious attack, Erin Trunel turned to Wilmer and trauma surgeon Michael Grant to restore her face—and her life.



As  see it



Dear Wilmer Friends and Family:

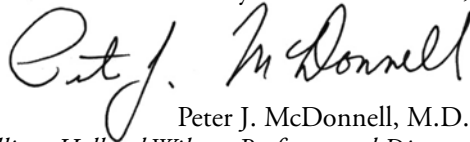
One of the most common words we encounter these days is “change.” The new presidential administration, the dramatic developments in our economy, and many other changes greet us daily.

Some are good, and others are not.

Change is absolutely an enormous part of our reality at Wilmer. The Robert H. and Clarice Smith Building, on schedule for completion this summer, will fundamentally change how we provide care to patients, perform research, and teach our future generations of medical students, residents, and fellows. The positive benefits from all these changes will be the big story for Wilmer in 2009. Many wonderful things are poised to happen here at the largest department of ophthalmology in the United States. It is truly an exciting time, and it is my hope that you will join us on October 16 when we officially dedicate the new building. Those of you interested in history will note that this dedication will occur 80 years to the day after the dedication of the original Wilmer Institute.

I thank all of you for your tremendous support for Wilmer.

My sincere best wishes,



Peter J. McDonnell, M.D.  
*William Holland Wilmer Professor and Director*

## Contents

4

### **INSIGHT** A Productive Partnership

Over 40 years, Wilmer's flourishing relationship with Research to Prevent Blindness has led to big breakthroughs in understanding and treating vision loss.

5

### **INSIGHT** Getting Creative

Pathologist Charles Eberhart is building on the work of W. Richard Green to develop new therapies to cure diseases of the eye.

6

### **SPOTLIGHT** Where Hope Prevails

Judith Goldstein and colleagues at Wilmer's Lions Vision Center take a “patient-centric” approach to vision rehabilitation.

10

### **SPOTLIGHT** Prime-Time Pursuits

Procuring government funding for research in recent years has been particularly tough on young faculty.

12

### **ON THE COVER** An Odyssey of Healing

After surviving a vicious attack, Erin Trunel turned to Michael Grant and the Wilmer trauma team to restore her face—and her life.

16

### **EYE TO EYE** Gifts That Mean the Most

When a rare eye disease threatened to rob Meighan McNulty of her sight, the young West Point graduate looked to Wilmer's Quan Dong Nguyen for hope.

18

### **EYE TO EYE** A Family's Legacy

Grateful for care that transformed her daughter's life 60 years ago, Estelle Ginsberg has made support for Wilmer a lifelong commitment.

COVER PHOTO BY MIKE CIESIELSKI

*Dedication to a*

# CURE

*October 16, 2009*

*save the date*

# Bridging the Gap

It's not a lack of brilliant ideas that can keep junior faculty from starting research projects that could lead to important new therapies and cures. It's a lack of funding.

"A young faculty member may have a truly exciting, potentially groundbreaking idea, but he or she may not yet have the discretionary funding to pursue that idea. There's often a long delay between conceiving the idea and applying for and receiving grant funding," explains Peter McDonnell, William Holland Wilmer Professor and director of the Wilmer Eye Institute.

The Wilmer Scholar Award aims to help bridge that gap. Established in 2006 with a generous gift from an anonymous source, the award recognizes one of the brightest young stars on the faculty each year with a \$100,000 grant that he or she can use to fund research during this critical early career period. Winners are selected by senior faculty members who meet with McDonnell each spring. Over dinner, they discuss the current research projects of assistant professors at Wilmer and then they vote. "It's been tough for the professors to decide each time because we are so fortunate to have so many bright young people doing very exciting work at Wilmer," McDonnell says.

Emily Gower, assistant professor of ophthalmology, was thrilled to be named the 2008 Wilmer Scholar. Gower's research has focused on endophthalmitis, a potentially blinding infection that can occur following cataract surgery. Using a national database, Gower identified an increase in the rate of the infection, and is now investigating whether a change in the incision type used in surgery could be a factor. Gower plans to design a nationwide surveillance system that would allow her to monitor the rate of complications for a variety of surgical procedures, including cataract surgery, to see if the postoperative complication rate changes when changes are made to the procedures. The money from the Wilmer Scholar Award, Gower says, will support her work as she develops a grant proposal. "This award is not only a tremendous honor, it's also something that will make a huge impact on my ability to do a large-scale study," she says.

Albert Jun, who was the first to receive the Wilmer Scholar Award, in 2006, used his award to expand the research he was doing on the cellular causes of Fuchs' corneal dystrophy, which is an inherited condition that affects



PHOTO BY KEITH WELLES

**Far-reaching impact:** Wilmer Scholar Award recipients Albert Jun and Emily Gower.

the inner layer of the cornea. The funding allowed Jun to hire a research fellow for his lab—and he is already seeing the pay off. He has submitted three manuscripts on the results of his research and is preparing a fourth. At the time he received the Wilmer Scholar Award, Jun was also doing research on the role of inflammation in the corneal disease keratoconus. Having this additional research fellow helped with this work as well. The impact of the Wilmer Scholar Award was multiplied when private donor James Openshaw learned about Jun's research and gave his laboratory a \$1 million gift. Jun is currently preparing grant applications to the National Institutes of Health for both projects.

"I am so grateful for these tremendous contributions, because they have allowed my group to grow in so many ways," says Jun. "There's a real synergy that comes from the incremental growth of adding another person, because that person brings ideas and expertise that adds to the entire group. The impact is far reaching and often so much more than the amount of a single gift or award."

"Research being done by Dr. Gower and Dr. Jun, and Dr. Noriko Esumi, 2007's Wilmer Scholar, has enormous potential impact," says McDonnell. "All three scientists have the potential to change how we think about eye disease." ■

—Maria Blackburn

# A Productive Partnership



PHOTO BY KEITH WELER

Thanks in part to funding from Research to Prevent Blindness, researcher David Guyton has developed an automated pediatric vision screener to catch amblyopia earlier in children, thereby increasing the opportunity for successful treatment.

**G**erard Luty doesn't mince words when talking about the \$75,000 Senior Scientific Investigator Award he recently received from Research to Prevent Blindness. "It saved the day for us," says Luty, who studies the development of blood vessels in the eye and how they change as the result of diseases like age-related macular degeneration. His lab hopes to develop therapies to repopulate weakened blood vessels with new cells. "Due to budget cuts and resultant reduction in the size of NIH awards," he says, "this grant was a wonderful break for us."

Over more than 40 years, researchers at the Wilmer Eye Institute have received \$6.39 million in grants from Research to Prevent Blindness (RPB), the leading voluntary health organization supporting eye research directed at the prevention, treatment, and eradication of all diseases that threaten vision. RPB accepts no government funding, relying instead on individual, private, and corporate support to give out \$10 million per year in research grants to some 50 institutions. Guided by a panel of leaders in the medical research field, its commitment to research funding has linked the organization to nearly every major breakthrough

in the understanding and treatment of the loss of vision during the past 40 years. "For many departments of ophthalmology, being able to count upon annual support from RPB in the form of an unrestricted grant literally allows the research program to survive through bad times," notes Wilmer's Director Peter McDonnell.

At Wilmer, individual grants from RPB to scientists have been used to fund a wide array of research projects over the years, from determining why the immune system attacks the eye in those with uveitis to curing river blindness in Africa. In addition, department chairs at Wilmer have

received unrestricted grants from RPB that they can use for a variety of purposes, including helping new faculty establish their labs until they can apply for federal funding.

"Wilmer has received one of the largest grant portfolios over the years that RPB has provided," says Morton Goldberg, who served as the director of Wilmer from 1989 to 2003. "It's been an intense, productive relationship over four generations of Wilmer directors."

The relationship between RPB and Wilmer began in the early 1960s, shortly after RPB was founded by Jules Stein, a former practicing ophthalmologist and the founder of Music Corporation of America. Officials at Johns Hopkins approached RPB with a request for support to expand their eye research facilities. RPB leaders responded by financing and directing a fundraising campaign that raised \$1.2 million and resulted in the construction of Wilmer's Woods Research Building.

Helping Wilmer gain research space made sense, explains RPB chairman David F. Weeks, because it would ultimately help RPB encourage, support, and increase the amount of eye research taking place at Hopkins. "One of the problems at that time was that most ophthalmology departments were divisions of surgery," says Weeks. "There were no dedicated laboratories. Building this laboratory would give Hopkins the largest eye research facility in the country, perhaps in the world." When it opened in 1963, the building was the largest unified research center for the study of the eye.

In 2005 and 2006, David Guyton, director of the Krieger Children's Eye Center at the Wilmer Eye Institute, received the Walt and Lilly Disney Award for Amblyopia Research from RPB. Now he is working on what

For many departments of ophthalmology, being able to count upon annual support from RPB in the form of an unrestricted grant literally allows the research program to survive through bad times.

— Peter McDonnell

he hopes will be another major medical breakthrough. Amblyopia, often referred to as “lazy eye,” is decreased vision in the eye that is estimated to occur in 3 to 5 percent of children. Catching the condition early is key to treating amblyopia. Because the standard way of screening for it is through visual acuity tests, many children don’t get screened until they are in school. Guyton and his team have been developing an automated pediatric vision screener that could help catch amblyopia in children as young as infants and increase opportunities for successful treatment. He used the grant from RPB (in addition to private philanthropic funding) to design, build, and test his latest model of the screener and is optimistic that it can be on the market in just a few years. “We believe this is going to revolutionize vision screening,” he says.

After more than four decades of Wilmer and RPB working together, Weeks wouldn’t expect anything less from a Wilmer researcher. “Johns Hopkins has one of the finest eye research programs in the country,” he says. “I think that’s really why the relationship has flourished. We support excellence.” ■

—Maria Blackburn

## Getting Creative



As the director of the Wilmer Richard Green Eye Pathology Laboratory, Charles Eberhart is working to understand the molecular genetics and pathobiology of tumors of the eye so that he can develop new therapies.

“I believe that a lot of the same molecular mechanisms that drive the normal development process become hijacked when tumors form or when other disease processes take hold,” Eberhart says. “If you can get a really good understanding of normal

development and normal biology, that’s going to help you understand what’s happening when things become abnormal because of a tumor or degenerative disease.”

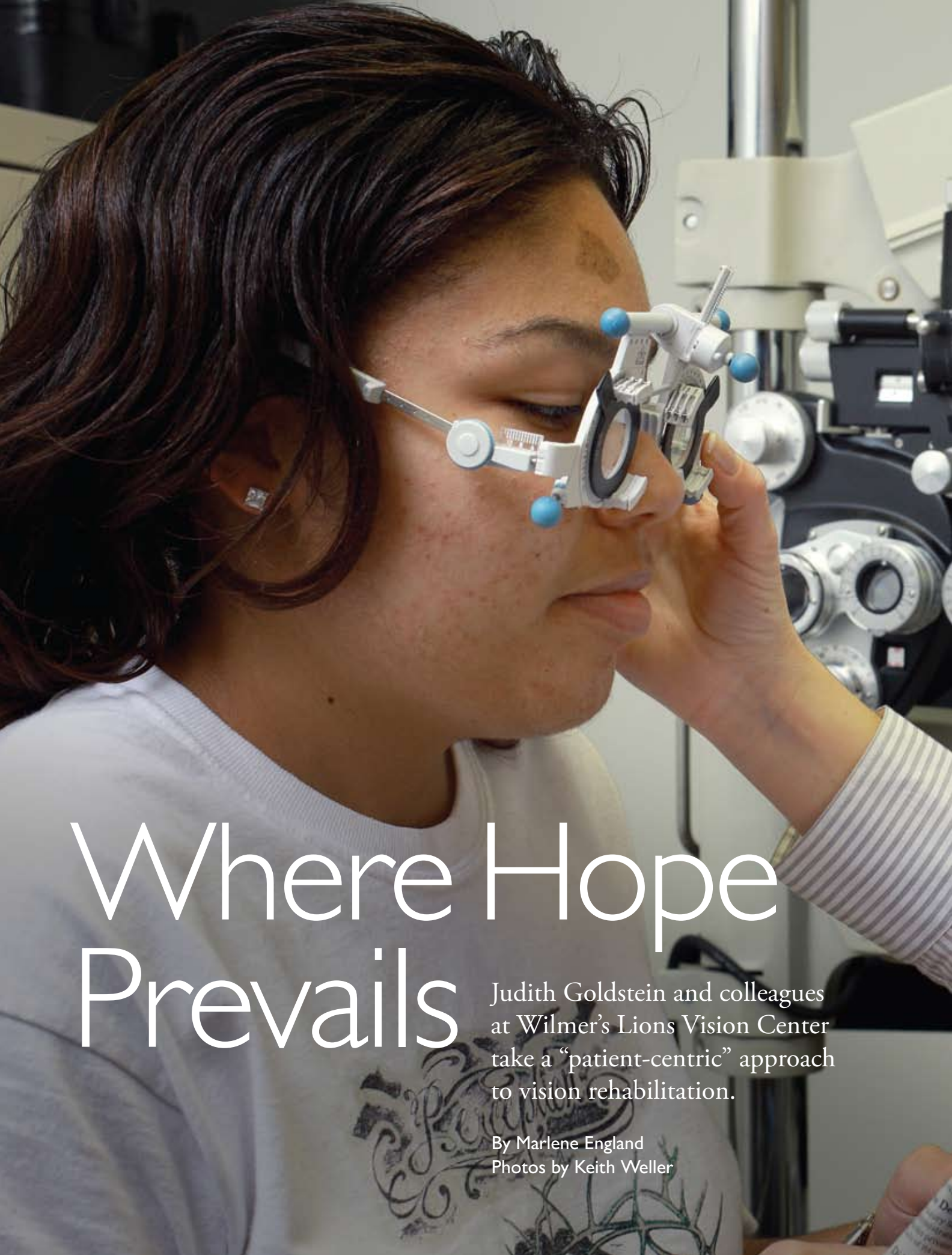
Eberhart’s research team studies tumor samples from patients as well as model systems such as cell lines and genetically altered mice. Much of his work centers on how signaling pathways involved in normal cell development go awry in cancer. At first glance, this research seems very different from the microscope-and-glass-slides approach used by the renowned Richard Green, whom Eberhart succeeded in 2005. But Eberhart says that without Green’s work, his own research would not be possible. Green documented and catalogued the pathology of a vast array of diseases of the eye and was the first to describe the microscopic appearance of a number of these diseases, Eberhart notes.

“Really, a lot of what Dr. Green did set the stage for some of the more modern efforts,” says Eberhart. “What I hope to do is to bring to bear the tools of modern molecular biology and cell biology and build on the microscopic and anatomical understanding of disease that Dr. Green spent his career researching. I want to take the next step by utilizing these 21st-century research techniques to develop new therapies to cure diseases of the eye.”

Eberhart earned his M.D. and Ph.D. from University of Texas Southwestern in 1997 and did his postgraduate training at Johns Hopkins Hospital. There, he completed anatomical pathology residency training in 1999 and a neuropathology fellowship in 2001. He was an assistant professor of neuropathology when he decided to take the position as chief of the ophthalmic pathology division. The move made sense, he says, given his long interest in the study of the eye and the fact that his brain-tumor research was increasingly involving work with the eye. Eberhart hasn’t regretted his decision.

“I really enjoy the work and I enjoy collaborating with researchers at Wilmer,” he says. “You get to have the fun of looking at these interesting images, and trying to interpret and understand what you’re seeing. That part of science is very creative and is always fun.”

—Maria Blackburn



# Where Hope Prevails

Judith Goldstein and colleagues at Wilmer's Lions Vision Center take a "patient-centric" approach to vision rehabilitation.

By Marlene England  
Photos by Keith Weller



Our patients want to stay active longer, working, reading, using their computer, driving, and doing all of the necessary daily living activities.

— Judith Goldstein

director of Vision Rehabilitation Clinical Services

**F**or people with diminished vision, an appointment with the Multiple District 22 Lions Research and Rehabilitation Center offers a welcome ray of hope for a better future.

Doctors have already told them that the disease causing their loss in vision—typically macular degeneration, glaucoma, or diabetic retinopathy—cannot be reversed, nor can lost vision be restored. Surgery won't help, and neither will medication. Even the most routine daily tasks—recognizing the face of a family member, reading a book, driving a car—have become difficult because of the change in vision. But inside the Lions Vision Center, a sense of new possibility prevails. Doctors and therapists examine each patient's visual condition and explore treatment strategies to improve visual function and its impact on daily activities. Many of the treatments involve using adaptive techniques to teach the brain to access visual information in a more effective and efficient way.

This “patient-centric” approach to vision rehabilitation can be highly successful—particularly if patients are motivated to maintain their independence and quality of life. As part of the initial comprehensive examination, an eye doctor with specialized training in low-vision rehabilitation and an occupational therapist counsel and talk extensively with the patient, all with the goal of creating an individualized visual rehabilitation program.

“In addition to evaluating the state of the visual system, we must consider the person's goals and develop a plan to meet them, since every patient is unique,” explains Judith Goldstein, director of Vision Rehabilitation Clinical Services at Wilmer. “We're treating the whole person, not just the eyes.”

There is no one-size-fits-all solution. Each rehabilitation plan is customized and includes an impressive variety of tools—high-powered glasses, magnifiers, and special lighting, along with other visual aids, adaptive techniques, and technology. Occupational therapists focus on specific daily living activities and help patients develop new strategies to accomplish them. One businessman treated recently at the

center wanted to continue traveling and working full time in a senior-level position. His goal was met through the combined use of telescopes, computer software, and high-powered spectacles for reading.

The success of vision rehabilitation is directly related to research and the speed at which that research is applied to patient care. “Unlike stem cell research, where treatment may not be ready for years, in the vision rehabilitation field the solutions are available now to patients,” Goldstein explains.

The impact of vision rehabilitation research at Johns Hopkins has had far-reaching effects. In 1990, the research conducted by Robert Massof, director of Research Services, led to the coverage of vision rehabilitation services by Medicare and other insurers. Prior to that, visits with the doctor were an out-of-pocket expense for patients. The equipment prescribed for treatment is still not covered by insurance, but Goldstein hopes that their current research will again prompt change. “If patients can't afford the treatment, it becomes unlikely that they can expect good results,” she says.

Goldstein and her colleagues at the Lions Vision Center at Wilmer recently launched a large-scale project—the first of its kind—to establish a clinical research network of 30 vision rehabilitation sites across the country. Ongoing trials and research projects will reveal national, regional, and individual differences in outcomes, as well as differences among patients seen in academic and private practices. The project also will build consensus on rehabilitation potential and treatment protocols, which could improve quality of life for thousands of low-vision patients nationwide.

An estimated 1.5 million individuals suffer from low vision in the United States. As the population ages, that number will increase—as will the Lions Vision Center's patient load. Although the center sees children and young adults, the average age of patients is 68. “The need to stay independent longer is far greater than in years past,” Goldstein observes. “Society and economic constraints demand that. Our patients want to stay active longer, working,

## The Lion's Share

In 1988, Lions Multiple District 22, which represents members of the Lions Clubs throughout Maryland, Delaware and Washington, D.C., partnered with the Wilmer Eye Institute to establish the Lions Vision Research and

Rehabilitation Center. Challenged by Helen Keller to become the “Knights of the Blind,” the Lions have long been dedicated to funding research and development in support of their mission of making a difference in the

lives of people with low vision. In 2008, the Lions Multiple District 22 funded an award to provide a clinical fellow yearly to ensure an ongoing commitment to vision rehabilitation care and education at Wilmer.

Carol Rainey, research program coordinator at the Lions Vision Center, works with patient Taneisha Kelly (also pictured on p. 6).



reading, using their computer, driving, and doing all of the necessary daily living activities.”

The challenge, Goldstein says, is not a lack of patients or research projects, but rather having enough staff and funding to get it all done. Adequate space for patient care and research is essential to meet the demand.

The completion of the Robert H. and Clarice Smith

Building this summer will help. With the relocation of outpatient surgery and several large research teams, the low-vision team is planning a reunion of sorts in the original Wilmer building.

James Deremeik, education/rehabilitation program manager at the Lions Vision Center, is pleased to see history repeating itself. When he first came to Wilmer in the early 1990s, low-vision clinicians and researchers worked in the same building on the same floor. “We’d meet over lunch, share ideas, cases, and new research opportunities,” he recalls. “The opportunity to collaborate worked tremendously well and resulted in improved patient care and practices,” he says.

As Wilmer expanded and the needs for vision rehabilitation service increased, the clinical services of the Lions Vision Center were relocated from the 6th floor of the 550 Building to the Wilmer building in the main hospital. Broadway separated the research and clinical staff of the Center. The two teams should be reunited within the next 12 months.

Sharing space will not only encourage collaboration between the research and clinical sides, but also provide better accessibility for patients and research study participants. A total redesign will enable the center to see and treat more patients. The addition of a mock kitchen and living room will enable patients to practice and experience the adaptations required to function safely in their own homes.

Says Goldstein, “We are very excited about the opportunity for the teams to work in tandem to develop new ideas and new treatments to benefit those with vision loss.” ■

—Marlene England

## STRENGTH ENDURANCE WILL POWER

A solid financial future – it’s a goal that you and Johns Hopkins share. Planning for this future is crucial, especially in challenging times like these. You can help ensure that the people and institutions you care most about will remain strong in the future. All it takes is *Will Power*:

Please contact us for information about tax-wise giving and sample bequest language to benefit The Wilmer Eye Institute.

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# Prime-Time Pursuits



**P**assage of the 2009 economic stimulus package, which promises new funding for the National Institutes of Health, has Wilmer scientists cautiously optimistic, even as they await details about just how the allocation will work out.

Most eager for good news, perhaps, are those earliest in their careers. While declining government funding for basic research has meant leaner times for scientists across the board (FY 2007 marked the fourth year in a row, when adjusting for inflation, that NIH funding has been cut), the situa-

tion has hit young researchers hardest.

Consider: Between 1970 and 2004, the average age at which investigators with a Ph.D. earned their first awards jumped from 34.3 to 41.7. Among M.D.s during this same period, that age went from 36.7 years to 43.3.

Those new in their careers need several years to build a lab and conduct studies that yield the early results so vital for procuring major funding. Some are fortunate enough to attract early support from foundations (See “A Productive Partnership,” p. 4) and private donors (See “Bridging the

Gap,” on p. 3). But for many others, the money just isn’t there.

“The pressure to see more patients and generate clinical revenue takes a bigger chunk of my time than I had expected early on,” admits Prem Subramanian, who joined the Wilmer faculty in 2007. Subramanian, who served a decade of active duty in the U.S. Army, most recently as an ophthalmologist at Walter Reed Army Medical Center, is doing research aimed at regenerating the optic nerve after traumatic injury. His early studies using cell cultures have been extremely promising.

He submitted a grant proposal to the Department of Defense last year—outlining his plans to use electrical stimulation and growth factor injections to stimulate the optic nerve in animal models. Subramanian’s proposal didn’t get funded. He was disappointed, but hardly surprised. Last year, he notes, “the DOD funded just six out of 200 proposals.” He plans to rework the proposal and submit it again this year. And he’s got other proposals brewing that he’s targeting to smaller funding agencies. But it’s tough to carve out the time he needs to move his work forward since he must spend three days each week seeing patients and another half day doing surgery. The early career grant he received from the Titus Family Foundation supports 20 percent of his effort, allowing him to devote more time to his research than most of his counterparts in other ophthalmology departments around the country, and

The pressure to see patients and generate clinical revenue takes a bigger chunk of my time than I had expected early on.  
— Prem Subramanian

PHOTO BY ELIZABETH BOWER



Subramanian is extremely grateful.

While they apply for grant support, Wilmer faculty support themselves through a combination of clinical practice fees and other revenue sources. The more time they spend seeing patients, the less time they have to devote to research. They depend on philanthropy to provide the breathing room in their clinical schedule they need to pursue their ideas for new treatments.

Inevitably, Subramanian must wedge his research efforts into the evening and weekend hours. “I had pledged to keep one full day each weekend free for my family,” says the 40-year-old father of two young children. “But I’ve had trouble living up to my rule for myself.” Subramanian is hardly alone.

“As a new faculty person, you just don’t have the portfolio you need to get those independent awards right away,” says Wilmer’s Michael Boland, 38, whose research is aimed at earlier diagnosis and improved treatment of glaucoma. “But most new faculty come in without any significant research support.”

Wilmer colleague Pradeep Ramulu, 36, agrees. Getting long-term funding “requires that you have some preliminary evidence that what you are proposing will work,” he says. “And there’s no way to write up a detailed plan of what you’re going to perform without having spent a lot of time figuring it out, and some effort in getting [preliminary] data to support what you’re going to do.”

Boland describes himself as one of the “lucky ones.” He’s had 80 percent of his time during his first four years at Wilmer protected for research, thanks to an early career award from the National Eye Institute. With just about six months left on that award, however, the clock is ticking.

“It used to be much more straightforward to transition from these early career awards into an ‘independent’ status”—i.e., major long-term funding. “But funding rates today are dramatically lower than they were eight or 10 years ago. Significant cuts at the NIH have [hampered] the agency’s ability to fund promising work.” In fact, in 1998, success rates were over 50 percent for grant submissions to the NIH; by 2007, the success rate had dropped to 18 percent.

Boland submitted a major grant proposal to the National Eye Institute last fall for a large-scale project that would allow him to develop a quantitative approach to better detection and diagnosis of glaucoma. He needs funding to hire a lab technician and to support his own salary. The proposal was not funded. “Over the next several weeks I’ll be working to resubmit the grant to the NEI,” he says.

Like Boland, Ramulu has been fortunate to have his first four years at Wilmer largely supported (90 percent) through an early career award from the NEI. Now in his second year of the award, he says, “It’s really been critical. It allowed me to spend an entire year getting a master’s in health science at the Bloomberg School of Public

Health, which gave me the building blocks for doing clinical research that I wouldn’t have had otherwise.”

While Ramulu and other promising young scientists are guardedly optimistic that the nation’s new stimulus package will improve their short-term prospects, Hopkins leaders emphasize that what’s needed for the long term are sustainable and predictable increases in NIH funding.

“Most ideas that turn into Nobel Prizes come from investigators before they reach the age of 40,” Hopkins AIDS researcher Robert Siliciano testified, before the U.S. Senate Appropriations Committee in 2007. “As a country, then, shouldn’t we be supporting these scientists when they are in their professional prime?” ■

—Sue De Pasquale

## FOR PROMISING SCIENTISTS, A TOUGH TIME TO BE YOUNG

- Between 1970 and 2004, the average age by which an investigator with a Ph.D. gains his/her first award jumped from 34.3 years of age to 41.7 years.
- Among M.D.s during this same period, that age has gone from 36.7 years to 43.3 years.

SOURCE: Robert Siliciano testimony before Congress, March 2007





# An Odyssey of Healing

After surviving a violent attack, artist Erin Trunel came to Wilmer's Trauma Center, where surgeon Michael Grant restored her face—and helped give her back her life. Wilmer's new surgical center, opening in June, will match his extraordinary skills with state-of-the-art technology and patient accommodations.

By Marlene England  
Photos by Mike Ciesielski



PHOTOS PROVIDED BY ERIN TRUNEL

Erin Trunel before her attack (top) and after.

**E**rin Trunel never saw it coming. She was alone and sound asleep in her home in France one night last winter when a masked man crashed into her bedroom around 4:30 a.m. and began beating her head and face with a fire log. The vicious attack continued for 90 minutes, with the attacker alternately roaming about her home and intermittently returning to beat her. Finally, he used a taser gun to “finish her off.” When he left at daylight, he was sure she was dead.

By that point, every bone in Trunel’s face had been broken. Her left eye was badly damaged. Her palette was smashed. As Trunel described it, “My face was essentially destroyed.” But she momentarily regained consciousness, enough to get help, enough to fight for her life.

Trunel was flown to a hospital in Toulouse, France, where doctors feared she would lose her left eye—devastating news for the accomplished artist. Through close mutual friends Chuck and Twyla Martin, she reached out to her friend Peter McDonnell, whom she had met in California, where Trunel lives part of the year and where McDonnell worked prior to becoming the director of Wilmer. McDonnell promised that he and Michael Grant, head of Wilmer’s Eye Trauma Center, would do everything they could to help.

The first step was transferring Trunel by air ambulance to Wilmer, where Grant performed an

eight-hour surgery to repair facial fractures and extensive damage to her nose, cheekbone, jaw, palate, teeth, gums, and mouth. In two weeks, after no vision had returned to Trunel’s left eye, Grant replaced it with an artificial eye. Several other doctors from Wilmer, including Eduardo Rodriguez and Vaughan Emerson, participated in the reconstruction.

“Her injuries and operations were about as complicated as it gets,” explains Grant, one of only a few surgeons in the country board certified in both ophthalmology and plastic surgery. “Here at Wilmer she received comprehensive care for everything under one roof. This is probably the only place in the country where that could have happened.”

Trunel wholeheartedly agrees. “In this horrible experience, I was fortunate to have the Wilmer Eye Institute and a trauma specialist who rebuilt my face and continues to offer state-of-the-art care for my eye,” she says. Trunel praises not only the care she received but also the advanced procedures and cutting-edge systems and tools that are standard practice at the Wilmer Eye Trauma Center—particularly the temporary catheter that was implanted in her eye. The catheter, recently developed at Wilmer, allows local anesthetic to be delivered directly to the surgical site as needed, reducing pain and the need for narcotics. “There are many things at Wilmer that I understand are just not available anywhere else,” she observes. “I don’t

know that anybody could have done a better job than Michael Grant and his team. I’m glad I know them and I’m glad they know me.”

Although her situation was rare, the quality emergency care Trunel received is business as usual for Wilmer. As the sole designated eye trauma center for the State of Maryland, Wilmer provides round-the-clock treatment for all types of eye injuries, ranging from abrasions to chemical burns to severe trauma.

We’re going to have a state-of-the-art facility that’s designed to do everything from simple procedures to the most complex, involving not only surgery inside the eye but also the eye socket and bones of the face.

—Michael Grant,  
head of Wilmer’s Eye Trauma Center

As Wilmer's new home nears completion, passersby are stopping in their tracks to look. Located on the corner of Broadway and Orleans Street, the 207,000-square-foot ultra-modern structure is angled precisely toward the historic Wilmer dome, capturing its image on reflective glass.

Neurologists, plastic surgeons, otolaryngologists, and social workers are available to address every patient's comprehensive needs.

Last year, the Eye Trauma Center treated more than 9,251 patients from all 50 states and 87 foreign countries. More than 8,000 inpatient and outpatient eye surgeries were performed at Wilmer in 2008. An aging population ensures that those numbers will continue to rise, perhaps by as much as 15 percent per year.

The Robert H. and Clarice Smith Building, set to open this summer, will be able to accommodate more patients more efficiently, thanks to a one-floor surgical center that will include the Eye Trauma Center. "We're going to have a state-of-the-art facility that's designed to do everything from simple procedures to the most complex, involving not only surgery inside the eye but also the eye socket and bones of the face," explains Grant.

Grant and his team plan to utilize an array of high-tech tools in the new surgical center, including an image-guided system that will enable doctors to view the inner eye in three-dimensional detail during an operation. The operating suite will be equipped with all the imaging and instrumentation needed to treat traumatic injuries, tumors, and congenital deformities, as well as to perform routine eye surgeries. Scans will be beamed directly by computers into the operating suite so doctors can reference images during surgery.

As much as patients will benefit from the cutting-edge technology, they will also appreciate the many "creature comforts" being built into the new surgical center. Mia Paterno, business and operations manager of perioperative services, says patients and their families will notice many improvements long before they enter the operating room.

"Right now, the walk from the outpatient parking garage to the surgery center is nine-tenths of a mile," Paterno points out. "In the new building, there will be a dedicated parking lot so patients can park [very close]—an average of 100 feet from our entrance."

The surgical center's door opens to a larger registration area and spacious waiting room. A separate waiting room, equipped with a DVD and movie library, is reserved for pediatric patients.

When patients are called to the pre-op room, they will sit in what Paterno calls a "stretcher chair." With one push of a button, the chair fully reclines so surgery can be performed, thereby eliminating the need for patients to transfer from chair to bed and back again. This also eliminates any possibility of falls—plus it's a lot more convenient, Paterno points out. "Because we have such a high surgical volume, we are very attuned to patients' needs. This new building was well planned with our patients in mind."

And it is thanks to Wilmer patients that this building has become a reality, notes Grant. "Private philanthropy has made this new surgical center possible," he says, "and it is the key to our future in developing the next generation of surgical tools and techniques."

For Erin Trunel, the past year has involved ongoing care at Wilmer. Grant recently performed two follow-up operations on her eye, nose, and mouth in February, almost a full year after the initial attack. She is still being treated by oral and dental specialists for damage to her teeth and gums. The man who attacked her so viciously that February dawn is still on the loose. However, Trunel looks to the future with optimism and hope. "I've begun painting again," she

says, "which gives me much pleasure, confidence, and a positive outlook." ■

—Marlene England

The new surgical center's door will open to a larger registration area and a spacious waiting room.



PHOTO BY KEITH WELLS



# Gifts That Mean the Most



Time was critical when West Point graduate Meighan McNulty came down with a rare eye disease that threatened to rob her eyesight. She turned to Wilmer's Quan Dong Nguyen to save her vision.

**N**ot much rattles Meighan McNulty. A West Point graduate and retired Army captain and military intelligence officer, she has jumped out of airplanes, led a platoon of 25 men, and volunteered for a tour of duty in Sarajevo, Bosnia. But in March 2004, while stationed at Fort Hood in Killeen, Texas, she woke up one morning seeing spots.

"I thought I had ripped a contact," recalls McNulty, who has worn glasses or contacts for nearsightedness since age seven. When the spots continued and her lens wasn't the issue, she got worried. "I went to the Army doctor but didn't feel comfortable with the battery of tests, so I went to a retina specialist in Austin," she says. More tests were performed, and various treatments were prescribed, but the spots got worse. As the list of possible diagnoses grew, so did McNulty's worst fears. The U.S. Army put her on medical leave, and she returned home to Massachusetts for a third opinion.

In late spring 2004, doctors in Boston diagnosed McNulty with Punctate Inner Choroidopathy (PIC) a rare, incurable eye disease typically affecting younger, nearsighted women and characterized by scattered, small lesions located within the macula of the eye. If not treated quickly and properly, PIC may cause severe visual loss within a year of symptoms. McNulty admits that the diagnosis brought some relief, but she felt small comfort. "There is a certain desperation," says McNulty, who was medically discharged by the Army in 2005. "You keep looking for answers since there is no cure. I began to worry that I would not be able to do everyday things."

From Boston, she was referred to Quan Dong Nguyen, associate professor of ophthalmology at the Wilmer Eye Institute and a recognized innovator in the treatment of retinal vascular and ocular inflammatory diseases, and uveitis.

Since 2002, Nguyen has been managing patients with PIC using immunomodulatory therapy (IMT), the same treatment often employed in the management of neoplastic and autoimmune diseases. Traditional therapeutic approaches to PIC have been observation or treatment with high doses of steroids, which if used long-term, can cause significant side effects. "When you have a disease that is rare and low in prevalence such as PIC, it is harder to study it in a clinical trial, as we would not be able to enroll a sufficient number of patients," explains Nguyen. "I have learned that you cannot treat PIC with steroids only. My goal in using IMT is to prevent or decrease recurrence of inflammation and development of complications of PIC,

PHOTO PROVIDED BY MEIGHAN McNULTY

“At the end of my first appointment, he told me that he was going to save my vision. I knew that if there was going to be any success from my treatment, it was going to come from Dr. Nguyen and Wilmer.”

—Meighan McNulty

while eliminating the need for patients to be subjected to high doses of steroids.”

During McNulty’s first visit with Nguyen in summer 2005, she immediately felt at ease. “At the end of my first appointment, he told me that he was going to save my vision,” she recalls. “I knew that if there was going to be any success with my treatment, it was going to come from Dr. Nguyen and Wilmer.” Time was critical, not only for her eyesight, but for her next challenge: Harvard Business School’s MBA program. Just prior to enrolling in fall 2005, McNulty began IMT under Nguyen’s care. Today, her treatment continues, and though most likely she will never be considered “cured,” McNulty’s eyesight is stable, her outlook is bright, and her vision for her future is clear. In 2007, with her Harvard MBA in hand, she moved on to New York City and the challenges of Wall Street as a management associate in Citibank’s credit card division.

The close-knit McNulty family also embraced her treatment and the Wilmer Eye Institute, an enthusiasm that McNulty explains is standard operating procedure for her family. After all, her father’s motto is “never give up”—words that his wife and four children have taken to heart. As soon as the McNultys met Nguyen, mother Vicky began writing friends and family asking for support of his research. “We had the same frustration that Meighan did with this terrifying disease,” she says. Giving to Wilmer “was a way for us to focus and channel our frustration and fear into something positive.” For the July 14, 2007, wedding of Meighan’s brother, the wedding party made wedding gift donations to Wilmer at the bride and groom’s request. And last summer, Meighan’s aunt and uncle requested gifts to Wilmer in lieu of flowers for their son Patrick W. Desmond’s funeral.

Nguyen, who is a recipient of the 2009 Research to

Prevent Blindness (RPB) Physician-Scientist Award, finds such heartfelt support both humbling and hopeful.

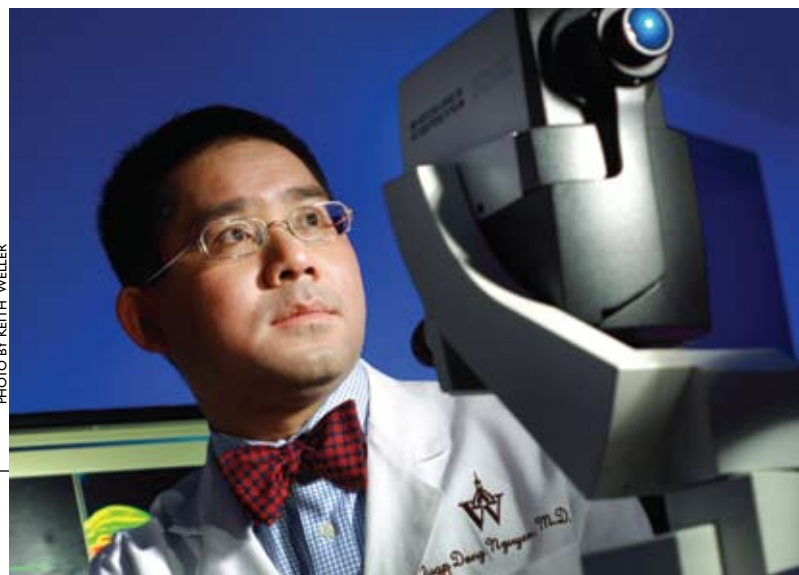
“As physicians, we are very humble in recognizing that medicine is a broad field and that there are many things we do not know,” he explains. “We need to keep searching for what is the best treatment for our patients. When I took on the treatment of Meighan, I did not know with complete certainty how it would turn out. Even though I have received grant support from the National Institutes of Health and other nonprofit organizations, the unsolicited gifts such as those from the McNultys are the most meaningful to me. It is recognition of how devoted we are to our work in patient care and research.” Nguyen notes that the support he’s received from the McNulty family has allowed him to advance his research into better understanding the clinical course and characteristics of patients with PIC.

McNulty, too, is deeply touched. “At West Point, we’re taught that true leaders are those who inspire the soldiers to demand more of themselves than they would in their leader’s absence,” explains McNulty. “Dr. Nguyen and my family encouraged me to pursue all of my goals [while] dealing with this disease. They didn’t treat me differently or allow me to give up on myself. The fact that they are still supporting me and Wilmer means the world to me.” ■

—Sarah Achenbach

**Support from the grateful McNulty family has allowed Nguyen to advance his research into PIC, a disorder sometimes dubbed an “orphan disease” because so few people are affected by it.**

PHOTO BY KEITH WELER



# Leading the Way to Better Eyesight



PHOTO BY MIKE MCELVANE

Flanked by Knights Templar members and Peter McDonnell, Wilmer researcher Lisa Keay gratefully accepts funding to support her work.

For over half a century, the Knights Templar Eye Foundation Inc. has given the gift of sight to thousands of people. With annual gifts solicited from Masons throughout the national Masonic family, the Knights Templar Eye Foundation funds eye surgeries for approximately 2,000 low-income patients each year, with funding to date totaling more than \$102 million. The foundation, headquartered in Chicago and with membership chapters in all 50 states, also has a global impact on the fields of pediatric ophthalmology and ophthalmic genetics through its competitive research grant program.

Since 1956, the foundation has awarded more than \$9.7 million in research funds.

In 1982, the Knights Templar Eye Foundation began funding research at the Wilmer Eye Institute at Johns Hopkins. An impressive 12 percent—or \$1.15 million—of all Knights Templar Eye Foundation research funding since has been awarded to Wilmer. Researchers across the country apply for funding, selections are made each year during late summer by a Chicago-based panel of ophthalmologists, and awards are announced in the fall.

Last September, several Knights Templar members were on hand to present a \$25,000 research grant award to the 2008-2009 recipient from the Wilmer Eye Institute: Lisa Keay. A research fellow with the Dana Center for Preventative Ophthalmology, Keay is conducting her research in China to compare the effectiveness of ready-made versus custom-made eyeglasses prescribed for children. (Up to one-third of Chinese school children screened for near-sightedness require glasses.)

“The Knights Templar Eye Foundation is proud to be able to contribute to Wilmer,” notes Pat Curtis, who recently completed his tenure as Grand Commander for the Maryland Knights Templar chapter. “Wilmer’s researchers will be the leaders for better eyesight for the rest of the world, particularly young children. If we can save their eyesight, the effects will be multifold.” ■

—Sarah Achenbach

## A Family’s Legacy

Call it mother’s intuition, but when Estelle Ginsberg looked into her baby girl’s eyes in 1949, she knew “there was something funny.” After bringing her concerns to the pediatrician’s attention, Ginsberg, her husband Samuel, and daughter Karen were referred to the Wilmer Eye Clinic where the late Charles Iliff Sr., diagnosed Karen with congenital glaucoma. “I was lost when I got to Wilmer,” Ginsberg says, her voice catching with emotion at the 60-year-old memory. “Karen’s first operation was at 11 months, and she had two more by the time she was 15 months old. I wouldn’t wish it on anybody.”

Throughout their daughter’s child-

hood, the Ginsbergs made several trips each year to Wilmer. Karen went on to earn two degrees from Towson University, spend a year working in Israel with children who are mentally challenged, marry in 1976, raise two sons, and make her parents proud. The Ginsbergs were so touched by Wilmer’s life-transforming care of their daughter that they quietly began creating a legacy to ensure that other families would experience the same.

In 1985, the Ginsbergs established the Estelle and Samuel Ginsberg Fund for Children’s Eye Disease with an initial \$10,000 contribution. For every birthday, anniversary, bar and bat mitzvah, graduation, and even death that has followed in the Ginsberg family, Estelle Ginsberg, now 86, has

donated \$10 to the fund. Today, the Ginsberg Fund totals more than \$40,000, an amount that both astounds and pleases her.

“Wilmer saved Karen’s sight, and I want another child to have the same help and care that Karen had and to grow and have a family like Karen has,” says Ginsberg, a self-described Baltimore Ravens and Navy football “nut” who lives in Owings Mills, Md. “The tears I have shed over my daughter, no one has any idea. I wanted her well, and Karen gets the best care at Wilmer. If this little bit of money will help another child, that’s all I ask.” ■

—Sarah Achenbach



PHOTO BY DANIELLE GREFFS

## Wilmer Advisory Council Meeting

The annual meeting of the Wilmer Advisory Council, which took place on Tuesday, October 28, 2008, included the unveiling of the leadership wall, in celebration of the construction progress of the Robert H. and Clarice Smith Building.



Clockwise from top left:  
 I to r: John Safer, Peter McDonnell,  
 Sandy Forsythe, James Gills, Morton  
 Goldberg, Rick Forsythe  
 Norma Tiefel and Joy Safer  
 I to r: Sandy Forsythe, James Gills,  
 Morton Goldberg, Rick Forsythe

PHOTOS BY ROBERT SMITH

## Wilmer Residents Association

Held in conjunction with the American Academy of Ophthalmology Meeting, this annual event (which took place on November 1, 2008, at the Ritz-Carlton in Atlanta, Georgia) brings together alumni, family, and friends of the Wilmer Eye Institute. Save the date for this year's reception in San Francisco on Saturday, October 24, 2009.



Clockwise from above:  
 Lucia Sobrin, Diana Do '03,  
 Lee Snyder '03  
 I to r: Bill Jarrett '65, Bob Liss '74,  
 Eugene De Juan '83, Irv Pollack  
 I to r: Henry Jampel '86, Jesus Viduarri,  
 Marilu Viduarri



PHOTOS BY ELIZABETH BOWER

## Wilmer in Palm Beach

The Afternoon Tea was held on January 21, 2009, at The Breakers in Palm Beach, Florida. Guests enjoyed presentations by Peter McDonnell, Esen Akpek, and Judith Goldstein.



I to r: Chuck Meyer, Mary Meyer,  
 Peter McDonnell

PHOTOS BY KIM MORTON



Hugh McCormick Jr., Nancy Hirst



I to r: Al Myerberg, Marlene Koeppel,  
 Patti Guerrieri, Alan Guerrieri



I to r: Bill Lake, Jean Lake,  
 Peter McDonnell

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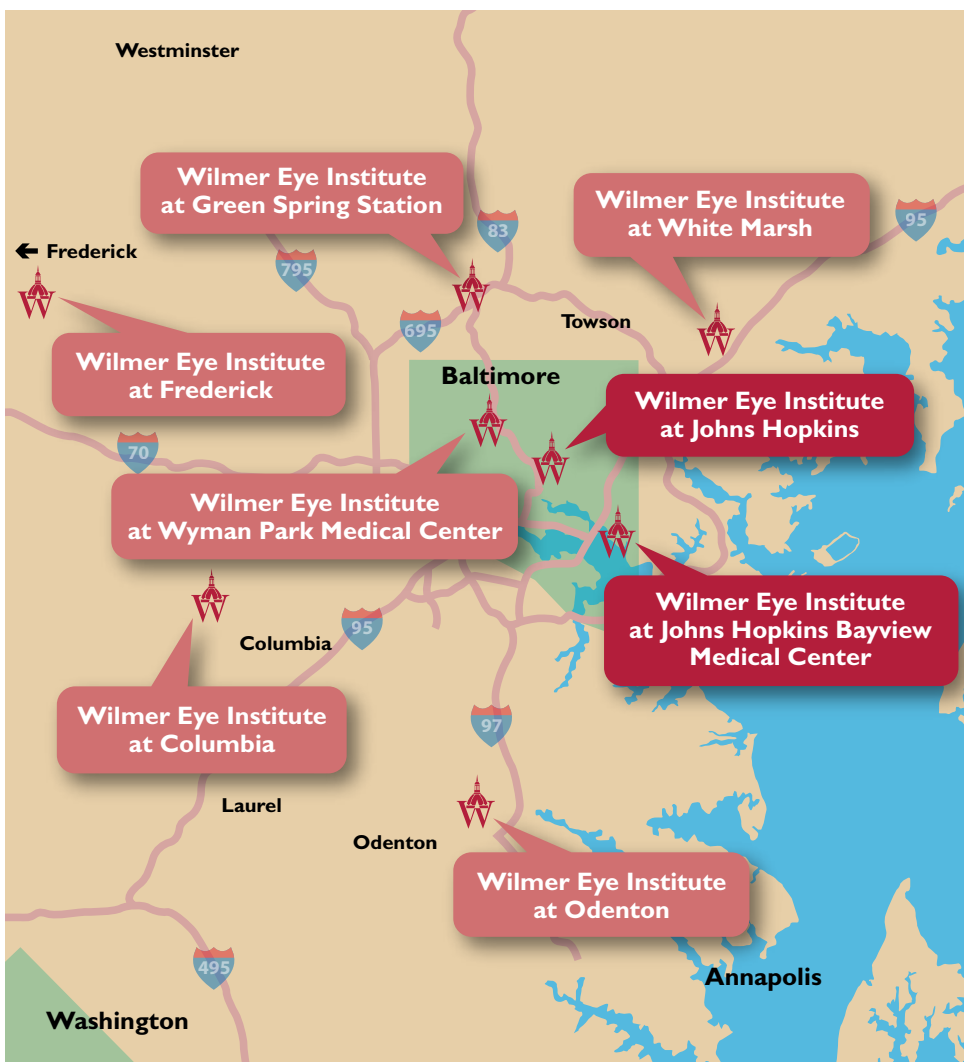
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