A PUBLICATION OF **EMORY EYE CENTER** | **2013-2014**

EMORY | eye

NEW TECHNOLOGY
NEW SIGHT

STORY OF RUTHIE

The **patient + doctor connection** at the heart of everything we do

From the director | Success through teamwork

Envision a patient, a doctor, an examining room. We see this scenario pictured on billboards, in advertisements, and in movies. It looks like a routine interaction – but please allow me to expand.

Here at the Emory Eye Center, the importance of what occurs between each patient and his or her physician, each day, represents the core of this organization's entire operation. An operation that, perhaps one day, will become Emory Vision Institute.

What's in a name? A lot. We are currently the Emory Eye Center. We are a part of the Emory University School of Medicine and Emory Healthcare. Yet we are not only about the eye, and we are more than a center. In this edition of Emory Eye, we highlight the importance that we place on the patient-doctor visit and further define how an institution is growing from this core.

Patients seek our guidance for a specific need, problem, pain, or vision-related malady. Such a request serves as an impetus for our faculty to help our patients see as well as they can see, thus carrying out our core mission. Serving patients first is our privilege and honor.

The patient-doctor visit is also the point where our educational mission occurs. Students, residents, and fellows learn at this interface, both benefiting from and contributing to this core experience.

The vast experience and knowledge of our physicians leads us to deliver the very best evidence-based care possible for our patients. The final, yet critically important aspect of the patient-doctor visit is that this interaction also represents the focal point for translational research.

The knowledge and expertise that support the best evidence-based care originate from careful observations, peer-reviewed publications, and the basic sciences. Translational research, the most direct connection between the principles learned during scientific inquiry, then evolves toward clinical studies. Our knowledge about disease management is constantly changing and is driven by scientific inquiry.

At Emory, the roots of research and knowledge not only extend deep into Emory University and the basic sciences, but also extend outward through our involvement with global health, public health, and community care. In Atlanta, our patient services also branch outward to Emory Midtown, the VA Medical Center, Grady Hospital, our Perimeter location, and, soon, to Saint Joseph's Hospital and Johns Creek Hospital.

Our core – the patient + doctor interaction, which keeps everything else in motion – is the focus of our cover article in this issue. Patients and physicians tell their stories of the shared journey from presentation to treatment, and of the heartfelt connections they have built with each other during that process. As you read these powerful stories, I hope you'll join me at the core-solid, ever-growing, interactive system that is Emory Eye Center today and will help envision us becoming . . . the Emory Vision Institute!

Timothy W. Olsen

THE EMORY EYE CENTER IS PART OF EMORY UNIVERSITY SCHOOL OF MEDICINE AND EMORY HEALTHCARE, BOTH OF WHICH ARE COMPONENTS OF EMORY'S WOODRUFF HEALTH SCIENCES CENTER.

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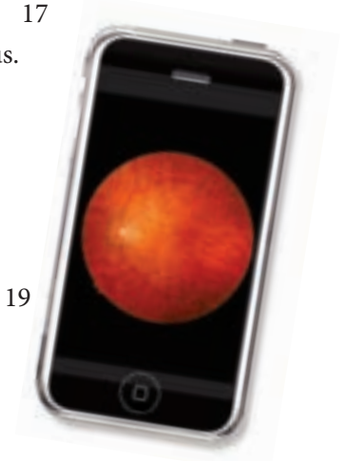

If you already love your smartphone, here's yet another reason to love it even more — **it may help your ophthalmologist.** 10

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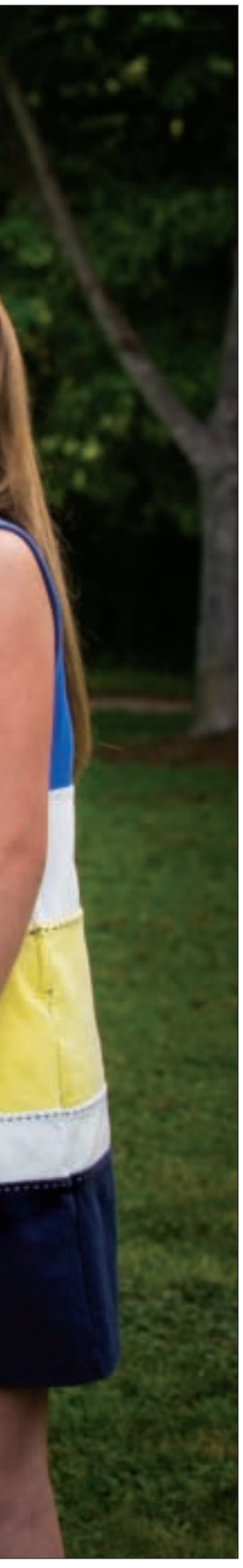


Eye to eye...

The **patient + doctor** connection at the heart of everything we do

By Ginger Pyron | Cover photo by David Woolf other photos by Donna Price

For anyone who has undergone a medical eye exam, that phrase probably brings up the memory of leaning into the forehead-and-chin rest while the ophthalmologist's eyes, inches away but unseen, peer from the other side of the slit lamp.

Here at the Emory Eye Center, "eye to eye" captures much more: Our physicians' ethic of direct, thorough, and compassionate communication with patients and families. The mutual sharing between patient and doctor – *"Here's what's been happening with my vision." / "Here's what your examination tells me, and these are the options we should consider."* The ongoing discussion until all parties "see eye to eye," agreeing – as a team – on a plan of treatment.

What's more, at Emory Eye Center this short phrase can multiply indefinitely – eye to eye to eye to eye to eye, and so on – reflecting the many other eyes at work within our examining rooms, operating rooms, research laboratories, instructional settings, clinical trials, satellite locations, and, in fact, throughout Emory University School of Medicine.

All of these eyes focus closely on questions related to our eye patients' problems. Through professional education and extensive experience, they are trained to see analytically; to look for the tiniest clues; to consider every possibility. Who benefits? One patient at a time – and an infinite number of patients in the future.

This complexity, however, springs from something very simple. At the core of each carefully orchestrated treatment – and of every seemingly miraculous outcome – stand, eye to eye, the two constant elements that make all our medical advances both necessary and possible: *A patient who is suffering. A doctor who wants to help.*

"It was a day we'll never forget."

Jeff and Angel Simpson recently tried to figure out how many trips they've made from their North Georgia home to Emory Eye Center since their first visit here. Their best guess: between 75 and 100.

For both the Simpson family and their Emory ophthalmologist, Baker Hubbard, however, the past eight years have been less a journey of miles than a journey of steps – painstaking, difficult steps, yet hopeful ones.

Jeff recalls that when Hubbard diagnosed the Simpsons' 11-month-old daughter Victoria (Tori) with retinoblastoma (RB), "I went numb on the word cancer. It was a day we'll never forget." Two weeks later, Tori had surgery for enucleation – the removal of her affected eye. Because her body rejected the necessary orbital implant, numerous visits and other surgeries followed. Tori emerged cancer-free, with normal vision in one eye and a beautifully crafted prosthesis in the other.

When Tori was first diagnosed, accurate genetic testing was not routinely available as it is today, but the conditions of Tori's case suggested that her RB was the non-hereditary type. As Tori recovered, the Simpsons planned to have a second child. When their son Landen was born, they proudly brought him along on one of Tori's follow-up visits. Hubbard offered to examine the baby's eyes – and it became another day etched on the parents' memory, as well as on his. A rare exception to RB's usual patterns, the family's retinoblastoma was the hereditary kind after all.

"It was like starting all over again, but worse, because Landen was so young," Jeff says. "Our tiny new child had to fight for his life, and there was nothing I could do to help him, other than to provide him with the best doctors possible."

With perfect timing, translational research stepped in to help: Hubbard, along with oncologist Tom Olson from the Aflac Cancer Center at Egleston, enrolled Landon in a clinical trial sponsored by the National Cancer Institute, which was treating RB with different combinations and dosages of chemotherapy agents to try to minimize side effects.

Initially Landen's RB was unilateral, but soon tumors became apparent in both eyes. At three weeks old, Landon started chemotherapy; later Hubbard performed laser surgery to treat the tumors. Within a year, all the efforts had succeeded. Both eyes were saved, the vision in Landen's right eye was estimated to be near normal, and Hubbard had eradicated the left eye's tumor – but central vision had to be sacrificed to save the eye and its peripheral vision.

"Dr. Hubbard is our hero," Angel Simpson says, "and there's such a bond of trust between us. With his help and a blessing from God, our kids got a second chance at life."

Today Landen and Tori are both healthy, fun-loving children. Tori, now 8, is a master hula-hooper with several beauty pageant wins to her credit. "A lot of her friends don't even know she has a prosthetic eye," Jeff says, "and she often receives compliments on how pretty her eyes are."

Other good news, Hubbard reports, is that RB treatment may be on the cusp of dramatic advances, particularly in delivering drugs to the eye more effectively and with milder side effects, via microneedles.

Parents of RB children need good news, and Hubbard offers them as much as he possibly can. "Parents are frightened and vulnerable," he says. "Here's their child, who means more to them than anything, stricken with cancer that threatens the child's life and could leave their child blind. But in a majority of cases, that child is going to do well. Children have a strong ability to cope, to adapt, and to overcome obstacles. Difficulties that terrify their parents often do not even faze the child."

For Jeff, Hubbard's approach works: "When you have a question, Dr. Hubbard has an answer. And he's not just giving you a few words; he wants to educate you. It gives you peace, the knowledge that he shares."

The learning, Hubbard says, is a two-way street. "It's humbling to watch a family overcome such a difficult set of circumstances. It teaches me so much about persistence and faith. As a physician, going through this with more and more families, you learn more ways to help them. You learn that with the support of so many others, you can get the family through it."

Every year, the Simpsons attend Emory Eye's heartwarming RB picnic – not only to enjoy all the activities, but to meet other RB families, sharing stories and words of hope. As cancer survivors, they also participate in the American Cancer Society's Relay for Life.

"Our experience has made us want to give back," Jeff says. "And we've learned that every cloud has a silver lining. If we had thought that Tori's RB was the hereditary type, we would not have planned to have a second child. We wouldn't have had our wonderful son."

Step by difficult step, Jeff, Angel, Tori and Landen have come to see that every day together is a day to cherish always. As Jeff puts it, "We learned to love like there's no tomorrow."

"The patient and the physician: Everything of importance happens at that juncture. Patient care is our direct point of contact. It's where we provide the greatest value, and it's the epicenter for our other missions of education and research."—Timothy Olsen

"Is there nothing you can do?"

You wake up to find that your previously healthy right eye can see only a parade of colors. Weeks afterward, you're trying – for the gazillionth time – to successfully reach out and grasp a glass of water. How do you feel?

Jackie Carswell would answer that question in one word: *grateful*.

In 2010, after learning that both of her eyes were affected by end-stage "wet" age-related macular degeneration (AMD), Carswell, in her mid-70s, asked her doctor, "Is there *nothing* you can do?" He replied, "There's a doctor in Atlanta, doing some surgery that's just been approved."

Carswell's acquaintance with Emory Eye began during a long session with Susan Primo, a nationally known expert in low vision. Well practiced in pinpointing the needs of people with visual limitations, Primo asked Carswell about her eyes, her lifestyle, her interests and personality, her vision-related goals. Carswell learned about a device approved in 2010 by the FDA, and available to eligible AMD patients: a tiny, surgically implanted telescopic lens. Other options also existed, Primo told her, describing low vision devices that could help Carswell see better.

"Dr. Primo gave me alternatives, so I could decide," Carswell says. "She helped me understand that if I chose the implant, it was not going to be easy, but she thought I had the ability to do it. I still thank her for that."

Primo, the first person to undertake systematic study of how the trial's earlier participants were functioning four years after implantation, knew exactly which traits made a perfect candidate for the new device. There was no need to ask, "Are you optimistic? highly motivated? able to

accept compromises?" Primo could tell. In Carswell, she and the other team members – cornea surgeon John Kim, retina specialist Chris Bergstrom, and occupational therapist Donna Inkster – had a best-match.

Carswell was the first person in Georgia to receive the implant once it had received FDA approval; soon after her surgery, she and Inkster began the hard, slow work of rehab training. "One of the first things I started learning," Carswell says, "was how to look at a glass of water, focus on it, and reach for it. Well, I'd reach, but it wouldn't be there. So I just kept trying again."

Along the road back to independence, she also created strategies for coping with her limited vision:

Can't distinguish the knobs on the stove? Cover the "off" knob with hot pink duct tape.

Can't differentiate the seedlings from the dirt? Put the plants in pots.

Can't bowl as well as you used to? Just enjoy seeing how far the ball will go before it veers into the gutter.

Can't drive? Get by with a LOT of help from your friends.

"I'm by myself, so I've had to figure out what I can do to get things done," Carswell says.

Primo uses Carswell's own word – *grateful* – to describe what she has learned from her patient's rehab successes. "With her humor and upbeat nature, Jackie reminds me that there's a better way to look at life – to accept what is and then to move on, being grateful for what we have."

Today, with what friends call "that new little twinkle" in her eye, Carswell can focus her implant easily. She relishes being able to read the newspaper, or her Bible, or a book from a friend. Her fork never fails to reach her mouth; the toothpaste goes obediently onto the toothbrush. And both patient and doctor freshly recognize that there's always something you can do: Remember that the glass – whether graspable at that moment or not – is at *least* half full.

See p. 11 for another story about Jackie Carswell.

"The root of the issue is human suffering, and the doctor/patient relationship has arisen from the natural human desire to alleviate it. Medicine, and the science and education that go along with it, naturally flow from that core desire."—Baker Hubbard

"Emory's doctors were different."

College softball recruiters have already started watching Lori Smith. At 16, she pitches 65 mph, excels in math, loves to draw, and ranks #2 in her South Carolina high school class. She also has uveitis: specifically, pars planitis, a disease of the eye characterized by inflammation behind the lens, not far from the retina.

For years Lori assumed that the floating spots and black specks occasionally dotting her vision were commonplace. After she mentioned them to her mother, Kim Smith, the family's search for a diagnosis began, spanning a series of doctors and tests before someone recommended the Emory Eye Center.

Since 2010, Lori's vision has been under the care of Steven Yeh, a specialist in retina as well as adult and pediatric uveitis, and the director of Emory Eye's new subspecialty, the Uveitis and Vasculitis Service.

"Because of the longstanding nature of Lori's condition," Yeh says, "her case developed complications. It took us some time to figure out what combination of therapies would work best for her." Her treatment has included systemic immunosuppressive medications, laser surgery, cryotherapy, and steroid injections to the eye.

Although the treatment hasn't been easy, Lori has coped heroically with its ups and downs. Her family's comfortable relationship with Yeh has helped banish the fear that used to make Lori shake with dread before even a routine eye appointment.

Lori, who briefly saw Emory Eye's Baker Hubbard before beginning treatment with Yeh, says that Emory Eye's doctors were different: "I felt comfortable with them. When they were telling me about the uveitis, I could understand it

better. And they were friendlier."

Kim agrees: "At Emory, the doctors ask Lori about her activities, how she's doing in school. They reassure her that they will treat her the best way they know."

Over time, a closeness has grown between Yeh and the Smiths. "They're such engaging people," Yeh says. "It's easy to think of them as sort of a second family." To Lori, "Dr. Yeh is awesome."

Yeh takes for granted the expectation that Emory Eye physicians will show interest in their patients, invite questions, and make sure the family understands options and risks: "I don't think what I do is unusual. I believe all of us at Emory strive to give our patients the most outstanding care possible."

A key colleague for Yeh in the Uveitis and Vasculitis Service is Emory rheumatologist Sheila Angeles-Han. The two physicians collaborate to create a strong team: Yeh studies clinical outcomes of pediatric uveitis, and Han studies quality of life issues for pediatric uveitis patients – including Lori Smith.

Lori, looking toward college softball and possibly a major in physical therapy, rarely thinks about the blunt, terrifying prediction she heard at age 12 from a physician who suspected she had uveitis: "You might go blind." Thanks to Yeh, a much more optimistic prognosis has taken its place – one that Yeh first shared with her parents while Lori was sleeping after surgery. He told the Smiths, "She may even outgrow this problem."

Yeh sees the next few years as an exciting time for uveitis treatment: "A lot of work has been done in biologic medications; we now have options that didn't exist 10 or 15 years ago." A major development, he says, is the work of Emory Eye's Hank Edelhauser and Georgia Tech researchers in suprachoroidal delivery of drugs to the eye.

Even though her vision still contains some clutter, Lori reports that the specks don't interfere with her activities. "Having uveitis doesn't bother me," she says. "At first I would think, 'I'm not normal anymore.'" Through years of dealing with surgeries, medications, and side effects, however, Lori has learned what a strong individual she is. "Now," she laughs, "I don't even care about being 'normal'!"

While continuing to treat Lori, Yeh keeps up his own normal activities: gaining insight from each patient; sharing new knowledge with patients and colleagues; and building the Uveitis and Vasculitis Service along with Purnima Patel and Bhairavi Dholakia, who also specialize in ocular inflammatory diseases.

Dr. Yeh also definitely intends – much like one of the family – to cheer from the stands at Lori's next in-town softball game. "I have two sons," he says, "who would love to see her play."

"He was the one I wanted to see."

Peggy Moloney's story begins like a classic: "I had gone to an optometrist – a routine eye examination for new glasses. There was nothing wrong, as far as I knew."

Learning that the clinic had a new machine for taking retinal photos, Moloney agreed to see a sample. "But when I looked at my photo, I could see a growth, sitting on my eye. I was really frightened."

An Atlantan, Moloney was aware that Emory had a large eye clinic. A little research led her to the Emory Eye Center and Hans Grossniklaus: "I knew he was a specialist, internationally known for his research. He was the one I wanted to see." From the beginning, Grossniklaus, director of Ocular Oncology and Pathology as well as the L.F. Montgomery Pathology Lab, began to ease her fear.

"I've been a nurse and a nurse practitioner for 40 years," Moloney says. "I've done routine eye exams on other people, and I teach nurse practitioner students. But I'd never heard of ocular melanoma."

Although melanoma of the eye is far less common than skin melanoma, to Grossniklaus it's a familiar condition: "Yes, it's pretty rare – unless you're an at an ocular oncology center. We see 50 to 100 patients with this a year; for us, that makes a melanoma in our practice seem fairly common."

Members of the Ocular Oncology and Pathology team work collaboratively with oncology specialists at Emory Healthcare, Winship Cancer Institute, and the Cancer Center at Children's Healthcare of Atlanta. The group includes three clinicians – Chris Bergstrom, Baker Hubbard, Jill Wells – and four research scientists: Shin Kang, Hua Yang, and Qing Zhang. Grossniklaus calls himself "the bridge," because his work comprises basic science research, clinical care, and clinical trials.

His research currently includes, among other topics, using microtechnology to diagnose and treat a tumor of the eye, and the possibility of using microbubbles – as opposed to biopsy – to image the tumor. With researcher Erwin van Meir of Winship Cancer Institute, Grossniklaus is developing drugs to treat melanoma tumors that travel to the liver. Several presentations of his research findings will take place at major professional meetings in coming months.

Once tests confirmed the diagnosis of ocular melanoma in the choroid of Moloney's left eye, treatment followed quickly, but not before Grossniklaus, Timothy Olsen, Moloney, and her husband, Frank Casper, had some serious conversations.

"We make decisions *with* the patient, not *for* the patient," Grossniklaus explains. He carefully walked Moloney and Casper through the pros and cons of their two options: a) do nothing, but keep observing the borderline-size tumor; if it grows or changes, it might need treatment to prevent metastasis; or b) treat the tumor with a radioactive plaque, which could possibly cause radiation damage to Moloney's retina and optic nerve.

Moloney chose the plaque, which Bergstrom surgically applied; one week later, he removed it. In the three years since – with good vision, no evident eye damage, and her tumor almost nonexistent – Moloney has returned for periodic follow-ups.

Grateful for her positive outcome, Moloney warns others to be proactive about vision care: "When you go for your routine eye exam, be sure to get your eyes dilated. Ask the ophthalmologist if you should get retinal photos. You don't know what could be developing in an area you can't see."

"I consider myself very lucky that I got to see the right person," she continues. "Hans has always treated Frank and me as if he genuinely cares about us. For something like ocular melanoma, you have to have confidence in your provider. And we do."

"He includes me in the medical process, using the word 'we' a lot." —Bonnie Weil

"Here's why."

Bonnie Weil still doesn't know why she ended up with glaucoma after what should have been routine cataract surgery. Thanks to a referral, however, she does know that she's now at the right place, and in the right medical hands: those of Paul Pruett, a glaucoma specialist at Emory Eye.

Pruett fills in some of the "why" behind Weil's condition: "After cataract surgery from an outside provider, she developed inflammation in the eye. To treat the inflammation, she needed steroids – and one side effect is that steroids can raise the pressure inside the eye. It became a vicious cycle. When the outside doctors tried to lower the steroids, the inflammation would come back."

"I needed a doctor who would answer my questions and be very open," Weil says, "and Dr. Pruett fit the bill. His demeanor – confident, patient, matter-of-fact – is comforting. He is calm even when I'm not. Any doctor can tell you, 'I'm going to give you these drops,' but Dr. Pruett goes beyond that. He adds, 'Here's why.'"

This way of talking with patients, Pruett explains, is intentional: "Especially when treating patients with glaucoma, I give them the *why* at every step. Glaucoma typically has no symptoms, so a patient may not be feeling any discomfort. The *why* can help a patient see the need to use drops or undergo surgery."

Weil, recently retired from teaching gifted elementary students in North Georgia, recognizes Pruett's skill and can vouch for its effectiveness: "When I hear the *why,*" she says, "I feel I've been answered well." Long before learning that he directs Emory Eye's residency program, she pegged Pruett as a master teacher.

She recalls that residents were present at some of her examinations, and she heard them interacting with Pruett: "With them, too, he was matter-of-fact and kind. He's their advocate; I can tell."

Pruett says, "I tell residents, 'Put yourself in the patient's shoes: How would *you* best accept or understand this knowledge, if you had never been to medical school?' We also have role-play sessions with the residents, to help them learn to communicate with patients sensitively and clearly."

For Weil, communication with Dr. Pruett is on equal ground, person to person. "He includes me in the medical process, using the word 'we' a lot. He'll say, 'Let's just go do this retina scan,' or 'We can figure this out; if we can't, we'll ask somebody else.' And he has a way of sitting back and listening, looking me in the eye. That gives me confidence."

With a laugh, Weil continues, "I feel like my eyeball could fall out on the floor, and he would say, 'Oh, let's just dust it off and put it back in again.'"

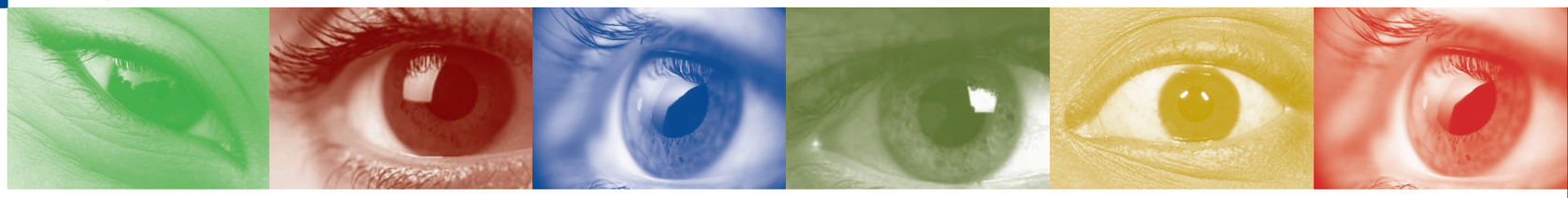
Perhaps Weil's laughter tells the story best: This is a doctor she is comfortable with, someone she trusts. After a year and a half of working with Pruett, she recently told him, "You're a lot younger than I am, so I rest assured that you'll still be functioning for a long time and will take care of my vision the rest of my life."

In case Pruett doesn't live up to that expectation, though, Weil is glad to know that he's training people to carry on his good work.

Her glaucoma and her interaction with Pruett, Weil says, "have helped me grow spiritually. I've come to terms with the fact that I'll always have glaucoma. It would be easy to just keep asking why. But a better question is 'Am I going to give up, or appreciate the good things and go on?' I believe that for every problem, there's a solution you can live with and be at peace."

Weil feels honored to share her experience, in hopes that it will help others. To anyone in an Emory waiting room who's reading this story, she wants to say, "You're in the right place!"

And Bonnie Weil knows why.



Smartphone new tool for **emergency department diagnosis**

If you already love your smartphone, here's yet another reason to love it even more — ***it may help your ophthalmologist.***

Eye Center investigators have found that smartphone displays are as good, and may be better, for reading fundus photographs of the back of the eye than desktop computer monitors.

The new technology application has been an additional finding in a multi-year study examining the use of non-dilated photography of the back of the eye within the emergency department. Emory researchers published this more recent finding in the "Research Letters," *Archives of Ophthalmology,* July 2012.

A fundus photograph as seen on a smartphone.

The findings follow up on the study: "Quality of non-mydriatic digital fundus photography obtained by nurse practitioners in the emergency department" (*Ophthalmology*, March 2012). The method studied allows specialized consultations within the emergency department that would not have otherwise been obtainable. Emergency rooms, of course, do not have "in-house" ophthalmologists, so having the ability to send readily-obtained photographs of the back of the eye, taken by nurse practitioners, to an ophthalmologist outside the hospital setting can be a critical tool that expedites patient care. It helps emergency room practitioners assess the severity of their patients' medical conditions almost immediately and allows them information to decide when further ophthalmological consultation is necessary.

"We expected equal- or lower-quality images displayed on the iPhone compared with the desktop computer, but instead found that the iPhone images seem to be superior despite their small size and lower resolution," says Beau Bruce, a neuro-ophthalmologist at Emory Eye Center. "We believe that the phone's higher resolution and brightness helped. This finding warrants further investigation, and should enable smartphones of all types to be used in a telemedicine network."

Because of the prevalence of smartphone technology, the ready access of obvious high-quality images joins the many other applications of smartphones within medicine, such as electronic medical records, books, guidelines and other diagnostic tools. Their portability can provide access to any ophthalmologist with a smartphone.

The study conducted by Emory titled, "Fundus Photography vs. Ophthalmoscopy Trial Outcomes in the Emergency Department (FOTO-ED)," has shown that non-mydriatic digital fundus photography cameras in the emergency department are helpful in triaging patients who come in with headaches, neurological disturbances, visual changes or severe high blood pressure. Emergency room practitioners need a timely and accurate assessment of the patient's condition. Certain conditions can be overlooked when an eye exam is not a part of the overall evaluation. Most patients would not guess that a look inside the eye is what they need for a complete diagnosis.

"The eye is a strong indicator of whole-body health," says Bruce. "Patients who come to us with hypertensive retinopathy, for example, show us how their hypertension is by the condition of their retina.

"Regarding use of the smartphone technology in more subtle conditions such as diabetic retinopathy, we are not suggesting the iPhone or any smartphone be used to screen for these conditions or as a replacement for a patient and doctor consultation," explains Bruce. "Nothing will take the place of a one-on-one exam, particularly for certain conditions."

New technology — **new sight**

Seventy-six year old Jackie Carswell knew she had turned a corner just six weeks following her implantable miniature telescope (IMT) surgery, when she could see that the cranberry sauce she had read about in her hometown newspaper for 68 cents was not the cranberry sauce she located at the store for $1.19. Asking a clerk about it, she was able to locate the cheaper cans nearby. That was a real moment, she recalls. She could actually discern the difference in the two cans and their costs, because she could read the prices.

Carswell had not been able to read for some time because she has age-related macular degeneration (AMD), which destroys the central vision needed to read, identify faces and do other fine, close-up work. She participated in the first FDA-approved IMT implant surgery at Emory with cornea specialist and surgeon John Kim.

The surgery, for those with end-stage AMD, was approved by the FDA in 2010. It is for those over 75 years of age who have not had cataract surgery in the eye to be implanted. Medicare has a coverage plan for qualified patients.

According to Carswell, a vibrant a 76-year-old, the only downside of her surgery is that she had hoped to be able to drive and cannot, but that is the only downside, she says. "This has been a challenge, but my friends have helped me so much," she says smiling. Carswell has a group of friends who bring her from southwest Georgia to her appointments, a three-hour trip.

Living alone, she cooks for herself. Being able to read her recipes and navigate the kitchen are two things she is now able to manage better. Learning how to look through the tiny telescope in her eye to see text is something she works on daily. At Emory's Ned S. Witkin Vision Rehabilitation Service, an occupational therapist sees her weekly and prescribes home therapy.

An award-winning bowler, Carswell likes anything that "gets her moving," she says. However, her vision therapy requires deliberate and focused work. But for one who achieved the "killer shot," the 7-10 split in bowling, there is no doubt that she'll continue to put the same effort into her therapy.

"I have learned a valuable lesson from this therapy," she says laughing. "I must slow down." A person who goes at life with gusto, Jackie said slowing down to do her home therapy allows her to be more successful in gaining her new-found vision. "My good friend let me know that the reason I was frustrated with my progress was because I was going at it too fast," she says smiling. "I'm slowing down now," she adds winking.

[WEB LINK] For more information and a video about Jackie: **eyecenter.emory.edu/IMT**

Since 2003 Virginia Walsingham had read about the implantable miniature telescope in clinical trials. Diagnosed with macular degeneration in 1989, she had lost vision over the years, but was in the care of great doctors and also had the good fortune to attend a school in Florida that taught her how to optimize the vision she had remaining.

"I learned lessons on mobility, cooking, folding money so I could know the correct denominations, as well as keyboarding," she recalls. "The school had a fundraiser walk, and I raised the most money. As a result, I won a computer," she says."I also have a CCTV (closed circuit TV that magnifies images), so I can read my bills. I have lived alone since 1996, so being able to do things for myself is important." But as her vision declined, Walsingham began considering the implant. She even talked with IMT patients in other parts of the country. One, an 89-year-old woman, gave her great confidence. "If she could do it," she says laughing, "surely, I could too!"

"My vision is just starting to come together, and I'm seeing more and more each day. Yesterday, for the first time, I saw the numbers of my home security keypad!" she says proudly.

A **Madagascar** experience

Oculoplastic and reconstructive surgeon Brent Hayek spent 12 days last fall in a medical outreach to Madagascar in its capital city of Antananarivo ("Tana").

Aided by the efforts of Susan Lewallen and Paul Courtright, our Global Vision Initiative co-directors who direct the Kilimanjaro Community Centre for Ophthalmology in Tanzania, the visit was to provide needed oculoplastic clinical expertise, surgeries and training in this underserved area. The existing 30 clinics in Madagascar feed into the SALFA (Sampan' Asa Loterana momban'ny FAhasalaman) Hospital, and provide needed surgery or other treatments for patients.

Hayek operated 12 to 14 hours a day for four days, providing surgery for congenital ptosis (droopy lid), entropion (eyelid malformations), tumors, and burn trauma, primarily. He happily reported that other physicians in the region participated in the week-long service and training.

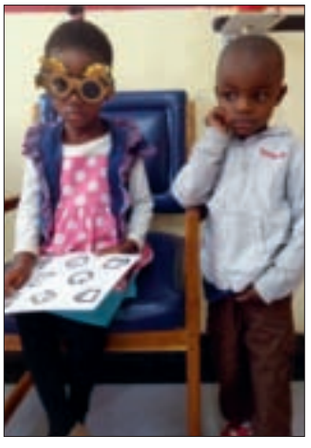
"This was an amazing experience in all aspects," says Hayek. "I went primarily to train local ophthalmologists in basic lid and other oculoplastic procedures through hands-on guidance, lectures and provision of materials. The primary goal was to provide enough training so that local ophthalmologists could care for their own people. It was a good turnout with a number of private hospital, public hospital and private practice surgeons who came to this endeavor. The warm reception and appreciation of the local doctors and patients was great.

"At the end, we also saw some lemurs, ate raw zebu and toured the surrounding region," says Hayek. "I hope this can become a site where other Emory and local physicians can establish future training in pediatrics, glaucoma and retina. All aspects of ophthalmology are needed."

In the future, Hayek will return to Madagascar, possibly with other Emory Eye Center specialists. "Ideally we would like to create a longstanding relationship between Emory ophthalmology and Malagasy ophthalmologists," says Hayek. "There is enough capacity in the country to allow further training in subspecialty care. An Eye Center team, including myself, and Drs. Lenhart and Giangiacomo, is planning strategies to return to Madagascar for phase two of this effort."

The cost of pediatric cataract surgery in Africa

Pediatric ophthalmologist Phoebe Lenhart traveled to Kitwe, Zambia, in 2012 to meet doctors Asiwome Seneadza and Chilesh Mboni and to learn more about the Child Eye Health Tertiary Facility there. Lenhart was the principal investigator for an Emory Global Health Initiative Multidisciplinary Scholars Team that involved four Emory students: Dan Lin (Rollins School of Public Health); pre-med/sociology major Young-Min Kim and neuroscience/journalism student Trusha Daya (Emory College); and fourth-year medical student Centrael "Sonny" Evans, who completed the project as part of his Discovery Phase (Emory School of Medicine).



Each student was awarded $3,000 to spend six weeks in either Malawi or Zambia conducting, "A Cost Analysis of Pediatric Cataract Surgery at Three Child Eye Health Tertiary Facilities in Africa." The results of this important study will aid governments, hospitals, and charitable organizations in allocating resources for pediatric cataract surgery.

"The project was a good opportunity for team members from a variety of backgrounds to learn more about the current status of eye care in Zambia and Malawi," says Lenhart. "We expect that the information about the actual cost of pediatric cataract surgery provided as a result of the project will be useful to funding organizations."

Thanks and acknowledgement go to doctors Courtright and Lewallen of the Kilimanjaro Centre for Community Ophthalmology for initiating the project; to researcher Zhou Yang in the Rollins School of Public Health (Department of Health Policy and Management) for her assistance with data analysis/ statistical support; and to doctors Asiwome Seneadza and Chilesh Mboni at Kitwe Central Hospital, and Gerald Msukwa at Malawi Eye Hospital for their support.

Edelhauser lectureship takes shape

To honor the life work of Henry F. Edelhauser, former director of research for the Eye Center, the Henry F. Edelhauser Translational Research Lecture has been established.

Several months ago, Emory glaucoma specialist Anastasios Costarides suggested that the Eye Center initiate a lectureship fund to honor Edelhauser—specifically, to create a lecture that can foster translational research topics. We have exceeded our initial goal of $75,000 to establish this fund as a permanently endowed lectureship. A translational researcher will be the named lecturer each year for the resident's research day and graduation ceremony at the Emory Eye Center.

Henry F. Edelhauser

Edelhauser's leadership in translational vision research has set the standard for exemplifying the high impact work that Emory's research program has become recognized for over the past 25 years. He has won nearly every national award in his field, including the prestigious Castroviejo Medal, has been the past president of ARVO, and was recently designated by the ARVO Foundation to receive one of its highest honors.

If you are interested in contributing, please contact David Woolf at 404-778-4121.

Five physicians named **"Top Docs"**

Atlanta magazine "Top Doctors" issues of July 2012 and 2013 ranked five Emory Eye Center physicians among the top doctors in Atlanta, a listing of 322 physicians in the metro area: **Allen Beck** (glaucoma); **Valérie Biousse** (neuro-ophthalmology); **Nancy Newman** (neurology and neuro-ophthalmology); **Scott Lambert** (pediatric ophthalmology); and **Timothy Olsen** (retina).

U.S. News & World Report rankings

Emory Eye Center again ranked among the top ophthalmology centers in this country within the prestigious *U.S. News & World Report's* guide to America's top medical institutions. This year, Emory Eye Center placed at #16.

The 2013 edition "America's Best Hospitals" guide ranks the top hospitals in medical specialties. The top hospitals ranked in Ophthalmology were named as among the "best for challenging cases and procedures" by at least 5 percent of ophthalmology specialists who responded to *U.S. News* surveys in 2011, 2012 and 2013.

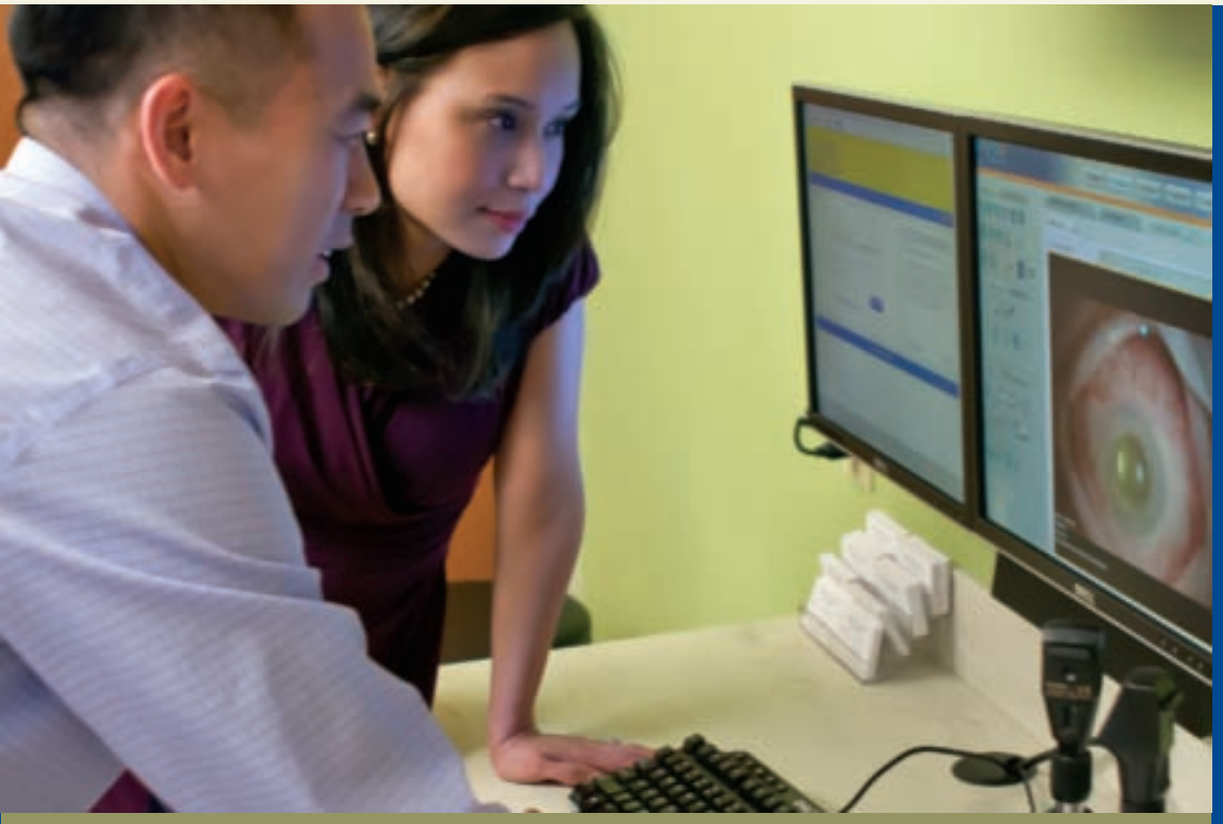
Additionally, eight Eye Center physicians were listed in the "Top Doctors" category within *U.S. News* rankings in 2012. As such, these physicians rank within the top 10% of physicians in the country.

Allen Beck (glaucoma)
Valérie Biousse (neuro-ophthalmology)*
Hans Grossniklaus (oncology/pathology)*
Scott Lambert (pediatric ophthalmology)*
Nancy Newman (neurology/neuro-ophthalmology)*
Timothy W. Olsen (retina)*
J. Bradley Randleman (cornea)

"We are very proud of our faculty whose strengths in clinical care, translational research, and education enable us to be among the top-ranked ophthalmology programs in the country," says Eye Center director Timothy Olsen. "The strategic programs and new faculty members at Emory will help us to blossom in the coming years as we continue to grow and expand our tripartite academic missions. We look forward to a building on our solid foundation and we see a very bright future, filled with new opportunities."

Names with an asterisk (*) are in the top 1% of doctors ranked.

What's new? A new clinical offering and an exciting collaboration



Uveitis specialist Steven Yeh confers with pediatric rheumagologist Sheila Angeles-Han of Children's Healthcare of Atlanta.

New Uveitis and Vasculitis subspecialty

With the additions of uveitis specialists Steven Yeh and Purnima Patel, the Emory Eye Center now offers a dedicated Uveitis and Vasculitis clinical section. Uveitis is a general term describing a group of inflammatory diseases affecting the eyes that can lead to slightly reduced vision or severe vision loss if not properly treated. While uveitis may occur at any age, working-aged individuals between 20 – 50 years old are affected most frequently.

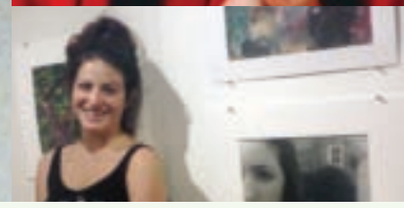
The term "uveitis" is used because the diseases often affect a part of the eye called the uvea (i.e. iris, ciliary body and choroid). Nevertheless, uveitis is not limited to the uvea. These diseases may also affect the retina, optic nerve, lens, and vitreous, leading to reduced vision or blindness if not detected and treated.

Uveitis may be localized just to the eye or may occur as part of a systemic inflammatory disease affecting other parts of the body. Uveitis can last for a short (acute) or a long (chronic) time. The most severe forms of uveitis may recur many times during a patient's lifetime but with proper treatment, recurrences can be limited or eliminated altogether.

Joint Pediatric Rheumatology-Uveitis clinic

In addition to adult uveitis, Emory has also added a Joint Pediatric Rheumatology-Uveitis Clinic in collaboration with the Pediatric Rheumatology service at Children's Healthcare of Atlanta (CHOA). Joining Yeh in treating these children is CHOA pediatric rheumatologist Sheila Angeles-Han, who holds research grants to study quality-of-life outcomes in children with uveitis. Yeh also has a Georgia Knights Templar grant to study pediatric uveitis outcomes following immunosuppressive treatment.

"Dr. Angeles-Han and I are collaborating on clinical care of patients with pediatric uveitis and research to assess quality-of-life issues in patients with juvenile idiopathic (unknown origin) arthritis-associated uveitis," says Yeh. "We will correlate these quality of life measures with patient outcomes and hope to improve patient care through improved understanding of these pediatric eye conditions."



Story of Ruthie

Award-winning photographer, sketch artist, guitarist, participant in national conferences, outstanding student and a champion of the underprivileged. These are all attributes of a young woman who, some 18 years ago, had a diagnosis of legal blindness in her future. Today, her story is far, far better.

You would never know it or see it when you meet Ruthie Sidell that she's undergone numerous surgeries on her eyes from the time she was a toddler. A gracious, ebullient, multi-talented high school senior, she is perhaps wise beyond her years and has a profound compassion for those less fortunate.

When Ruthie was just weeks old, her parents, with true parental instinct, knew that their baby girl was not seeing properly. That's when the series of doctor visits began in southern California where they lived.

Ruthie's mom and dad noticed that their daughter, a premie, was not tracking objects or people in front of her with her eyes. After receiving various diagnoses, they found that their precious baby girl had been born legally blind due to congenital cataracts in both eyes. By the time the correct diagnosis was made, some told them it might be too late to treat.

Thankfully, a pediatric ophthalmologist in California saw Ruthie and performed a needed cataract surgery on each eye at three months of age. Following the surgeries, Ruthie then developed glaucoma. It was managed for years with eye drops. During those early years, Ruthie wore contacts, which her parents inserted for her.

After moving to Atlanta as a toddler with father Neil, an Emory researcher, and mother Debbie, a high school teacher, Ruthie was ultimately treated by three Emory ophthalmologists.

She first saw pediatric ophthalmologist Scott Lambert, who treated her as an "aphakic" patient, meaning without the natural lens in each eye, since the lenses had been removed. Initially, working with Lambert, contact lens technologist Buddy Russell provided specialized contact lenses for Ruthie. As she grew older, Ruthie switched to thick eyeglasses in order to see.

Later, glaucoma specialist Allen Beck treated her for the

glaucoma that typically comes with those born with congenital cataracts and the subsequent cataract surgery. In 2003, he put a shunt into her right eye to control the pressure. Her left eye remains as a glaucoma "suspect." Today, he still manages her glaucoma.

"It is critically important to monitor children who have had congenital cataract surgery for the development of glaucoma," says Beck. "Glaucoma can be successfully treated, but it requires lifelong follow-up. What a pleasure it is to watch a child overcome her disability and grow up to become a young woman who can not only function in the world, but also thrive and succeed. "

In 2011, when Ruthie was 15, Lambert implanted intra-ocular lenses (IOLs) in her eyes to replace the natural lenses removed when she was a baby. The new lenses provided her with good "uncorrected" vision so that glasses were not necessary except to drive. That, she says, is when her world changed.

"For the first time in my life, I woke up being able to see everything, with near perfect vision," she says. "My world opened up, and I was so grateful."

"We waited to implant intraocular lenses in Ruthie's eyes until we were confident that her eyes had stopped growing," says Lambert. "It has been gratifying to see Ruthie grow up over the years and do so well."

Though her vision is much improved, she still has lingering nystagmus, a condition where the eyes move side to side rapidly, typical in children with her diagnoses. She also had ptosis, a droopy eyelid, which was repaired surgically by oculoplastic specialist Ted Wojno.

Because of Ruthie's vast experience with diminished vision and feeling different than her schoolmates, she developed a special caring for those with any kind of deficit. She is interested in psychology and childhood mental health and will begin college at Emory in the fall. Her extraordinarily busy high school years have included journalism efforts such as a project exploring the definition of real beauty. She had a placement in the High Museum for a photograph she took of a best friend and participated in a Lead America conference in New York, among other accomplishments.

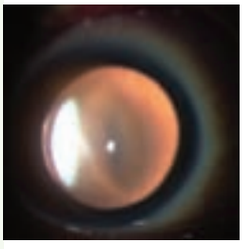
Ruthie credits her parents for many things, including persistence in getting her vision treated. She also recounts that her mother took her outside every night following her cataract surgery so that she could develop her vision by looking at the moon. The moonlight took, along with her parents' determination, so that a beautiful girl, inside and out—with light in her eyes—could make her mark on the world.

[WEB LINK] For more information on glaucoma following congenital cataract surgery: Childhood Glaucoma Research Network (CGRN): **gl-foundation.org/**

Corneal collagen cross-linking now at Perimeter

There is growing evidence that collagen cross-linking treatments can stabilize the cornea and help visual acuity in eyes with keratoconus, and possibly in those who experiencing ectasia (bulging of a thinned cornea), a complication that can follow LASIK surgery.

At Emory Eye Center's Perimeter Clinic, a clinical trial (2008–2010) revealed that at six months there was significant difference in the eyes treated with collagen cross-linking and those that were not treated. The treated eyes remained stable while the control eyes worsened.



Today, Emory Eye Center offers the latest cross-linking system, KXL, a new treatment that reduces cross-linking treatment time from 30 minutes to less than five minutes. During cross-linking treatment, riboflavin drops are administered to the eye and UVA light is aimed at the cornea. The light causes the riboflavin to fluoresce, which leads to the formation of bonds between collagen molecules, resulting in collagen cross-linking. The bonding then helps create stronger and more stable cornea tissue, potentially preventing acceleration of the keratoconus or ectasia. The treatment is still offered in the context of a multi-center FDA clinical trial.

"We are extremely excited to again be able to offer collagen cross-linking treatment to our patients with keratoconus, as this treatment is the only strategy available to be able to halt, and in many cases partially reverse, the progression of this corneal disease," says Brad Randleman, director, cornea, external disease and refractive surgery. "In the United States, we have been far behind the rest of the world in terms of what we have been able to offer these patients. Now, with the KXL system, we again are able to provide the latest and best treatment for our patients."

New treatment can **help with dry eye**

On a crisp, beautiful December day, Dell Daniels drove to Emory Eye Center's Perimeter location. Her eyes, once again, were tearing as she drove. She wasn't crying—she had severe dry eye, which can cause abundant tears. Daniels was hoping that a new treatment would help her increasingly annoying symptoms.

Because of her constant tearing, people often asked her if anything was wrong. Daniels reported that her eye "felt like it had sand in it," she could not see well at night, and her eye continuously watered, which eliminated her wearing make-up altogether.

Following cataract surgeries several years ago, then PRK and finally LASIK, she developed severe dry eye symptoms. Frustrated with the quality of her vision, she sought help from Emory Eye Center. The physicians suggested a new treatment for Daniel's particular type of dry eye.

Emory Eye Center is the first academic center in Georgia to offer the new technology that can help patients who suffer from a certain type of dry eye syndrome. The technology, Lipiflow Thermal Pulsation™ is a novel way to treat evaporative dry eye disease caused by meibomian gland dysfunction (MGD). Opening and clearing the blocked oil glands allows the body to resume the natural production of lipids, which are needed for healthy tear film.

The result may eliminate the uncomfortable symptoms associated with evaporative dry eye, which include light sensitivity, foreign body sensation, eye fatigue, and burning. The treatment generally takes approximately 12 minutes total for both eyes and may last from nine to 15 months. The procedure is fast, virtually painless and is an out-patient procedure, performed in the physician's office.

The LipiFlow Thermal Pulsation System applies heat to both inner eyelids, while at the same time applying gentle pressure to the outer eyelids causing release of lipid from the blocked meibomian glands.

After her treatment, Daniels drove herself home. At her home in middle Georgia, she reports that she has no dry eye symptoms in her treated eye, and, further, that she would "highly recommend" the innovative treatment for others who have a severe dry eye problem.

New LASIK option **broadens candidate base**

After waiting on industry developments to fully mature, Emory Vision now offers bladeless (femtosecond) LASIK. Cornea specialist and refractive surgeon Brad Randleman reports that outcomes using the new technology are excellent. Emory surgeons are evaluating a variety of factors and are finding the overall technology superior to Emory's already outstanding LASIK outcomes since opening Emory Vision in 2004.

"Femtosecond LASIK has allowed certain patients who were not candidates in the past for LASIK with a microkeratome to be excellent candidates now," says Randleman.

Emory Vision is located at The Emory Clinic Perimeter on Atlanta's north side.

Knights Templar **provides ongoing funding**

The Emory Eye Center was awarded $32,000 by the Georgia Knights Templar Educational Foundation, Inc. The funding will be used to continue important educational and research opportunities that impact the entire state of Georgia. Over the past several years, the Georgia Knights Templar has awarded $750,000 to the Emory Eye Center.

This year's awards include:

- Support for the Georgia Knights Templar Lectures in Pediatric Ophthalmology ($3,000) for two pediatric ophthalmology speakers. This year's Knights Templar speakers were Graham E. Quinn, Children's Hospital of Philadelphia, in January, and Ken Nischal, Children's Hospital of Pittsburgh, in March.
- The Learning Resources Center ($6,000) received funding to support on-line education and digital management of the Calhoun Auditorium, Emory Eye Center's lecture hall, during Grand Rounds, the Vision Research Seminar Series, and other key educational events.
- Pediatric ophthalmologist Phoebe Lenhart and cornea specialist Bhairavi Dholakia ($20,000) will study keratoconus in young people with Trisomy 21 (Down Syndrome), who have a higher prevalence of this disease, with the intent of preventing progression of the disease.
- Continued support for *Molecular Vision* ($3,000), www.molvis.org, the standard for "open-source" (free to all users on the web) publishing for ophthalmology articles. Molecular Vision has ongoing international support and collaboration between Emory and Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China.

Emory Aesthetics Center at Paces

Emory Healthcare recently acquired Paces Plastic Surgery Center in the Buckhead area. Emory has had an ongoing relationship with the surgeons who practice there for many years, and the acquisition is a natural next step in developing a presence in the northwest metro area. Focusing on a multidisciplinary approach to aesthetic and reconstructive surgery, the center will include members of Emory Eye Center's oculoplastic section, bringing oculoplastic surgery and cosmetic treatments to the location along with general plastic surgery, facial plastics and ENT surgeons.

Emory Eye Center's oculoplastics physicians Ted Wojno, H. Joon Kim and Brent Hayek will provide consultation and various rejuvenating procedures.

Services offered include:

- Treatments for eyelid drooping including eyelid lifts for sagging and baggy appearance (blepharoplasty)
- Eyebrow/forehead lifts
- Cheek lifts
- Rejuvenating procedures: Botox®, Restylane®, Juvederm®
- Fillers
- Peels
- Laser treatments for pigment spots, hair, rosacea, and skin resurfacing
- Asian blepharoplasty (double eyelid surgery)

RPB and Emory Eye

Research to Prevent Blindness (RPB) is the leading voluntary health organization supporting eye research directed at the prevention, treatment or eradication of all diseases that threaten vision. RPB provides major eye research funding to more than 50 leading scientific institutions in the United States and supports the work of hundreds of talented vision scientists engaged in a diverse range of disease-oriented research. The organization has provided more than $3M in funding to Emory Eye Center. This year, Emory Eye Center received a one-year departmental grant of $110,000 to further research efforts.

BLIND/SIGHT at Emory
through September

An extraordinary photographic exhibit depicting blindness now hangs in the hallways of Emory Eye Center. The exhibit, Blind/ Sight, by award-winning photographer Billy Howard and illustrator Laurie Schock, shows both the visually-impaired subject and, in illustrations by Shock, a rendering of what the blind person might "see."

AMD and omega-3s?

Emory Eye Center clinical research contributed to the recent findings of a multi-year National Eye Institute (NEI) study, AREDS2 (Age-Related Eye Disease Study). Results concluded that adding omega-3 fatty acids did not improve a combination of nutritional supplements commonly recommended for treating age-related macular degeneration (AMD), a major cause of vision loss among older Americans, according to an NEI study from the National Institutes of Health (NIH). The plant-derived antioxidants lutein and zeaxanthin also had no overall effect on AMD when added to the combination; however, they were safer than the related antioxidant beta-carotene, according to the study published online May 5 in the *Journal of the American Medical Association.*

"This is helpful information for our patients with AMD or those at high risk for it," says retina specialist Baker Hubbard, who was principal investigator at Emory. "It is important that they have good information on which to base their dietary supplement intake. This study is the culmination of many years of work and gives us answers to questions about the best way to reduce the risk of vision loss from this common disease."

Our latest clinic renovations

The coming year will mark the completion of extensive renovations in Emory Eye Center's clinical and educational areas.

In 2011, beginning on the tunnel level, our Learning Resources Center and Calhoun Auditorium were renovated. Following that, in 2012, the third floor—our busiest clinical area—was gutted and remodeled, resulting in a spacious, streamlined and welcoming clinical space, complete with a vintage French art poster collection.

This year we are renovating the entire fourth floor for those services that concentrate on the orbit, optic nerve, and visual pathways. These services include the sections of neuro-ophthalmology, glaucoma, oculoplastics, visual field testing rooms and administrative offices.

These new and improved spaces will enable Emory Eye Center to better serve patients and their families, while creating a beautiful, functional working environment for our employees.

EUH — a new wing

Construction is underway for Emory University Hospital's (EUH) new nine-story hospital bed tower, referred to as the "J wing." Located in the former green space in front our Clinic, Building B, the new addition to the existing hospital will include 210 inpatient beds, a combination of new and existing beds that the hospital will relocate from the current building. The new building also will include operating rooms and various ancillary services. The J wing will rest on an underground, four-level parking deck, which will provide 400 to 600 spaces for cars. Importantly, the new wing will create a new and exciting "sense of arrival" for the Emory Eye Center and Building B. Projected for completion in 2016, occupancy should occur in 2017.

Seeing things **as they are**

David Furukawa, a physician assistant at Emory Eye Center for 16 years, can't easily see the writing on a document, but he can see the proverbial writing on the wall. He can tell it's time to retire.

Since being diagnosed with retinitis pigmentosa (RP) as a pre-med student, Furukawa has known that his eyesight would continue to degenerate. He chose an alternate medical path, and as a young PA he came to Emory for genetic testing, to learn whether he would likely pass along the RP gene to children.

The physician he saw, David Saperstein, mentioned that the department needed a PA to do medical assessments for surgery, and suggested that Furukawa apply: "We know your eye condition, so we can watch you; and you can empathize with our patients better than most."

After interviewing with former Eye Center director Thomas Aaberg and others, Furukawa began his new job in March 1997. "All the doctors agreed," he recalls, "that my personal experience of vision loss, in addition to my professional skills, would give me insight into what the patients were feeling."

Over the years, this gifted man – president of the Japanese American Citizens League, Civil War re-enactor, board member of Foundation Fighting Blindness – has heartened patients and staff alike with his profound empathy, his generous laugh, and his conviction that vision goes far beyond physical seeing.

"I've been very fortunate," he says, "that the doctors, the staff, and the low vision clinic have provided the visual aids I needed." In his office, a closed-circuit TV with adjustable magnification and contrast makes any document legible; programs on his computer magnify text and read aloud material onscreen.

With his guide dog, Rocky, Furukawa has been a familiar sight along the hallways and tunnels of Emory. This year his eyesight took a turn for the worse: "Looking at a face, I see only a circle big enough to contain eyes, nose, mouth. It has become difficult to navigate the campus, difficult to do my job."

Furukawa has a clear vision, however, for his retirement: "I'll be a house husband; a Mr. Mom for my four-year-old son; and medical manager for the family – including my 96-year-old grandmother." This summer he'll head to Pennsylvania, joining a 150th-anniversary reenactment of the Battle of Gettysburg.

"Emory has been an extraordinary opportunity," Furukawa says. "The enormous support I've received has prolonged my career far beyond what I could have managed in a private practice setting; and I've grown greatly here as a person. I love the docs, and I love the staff."

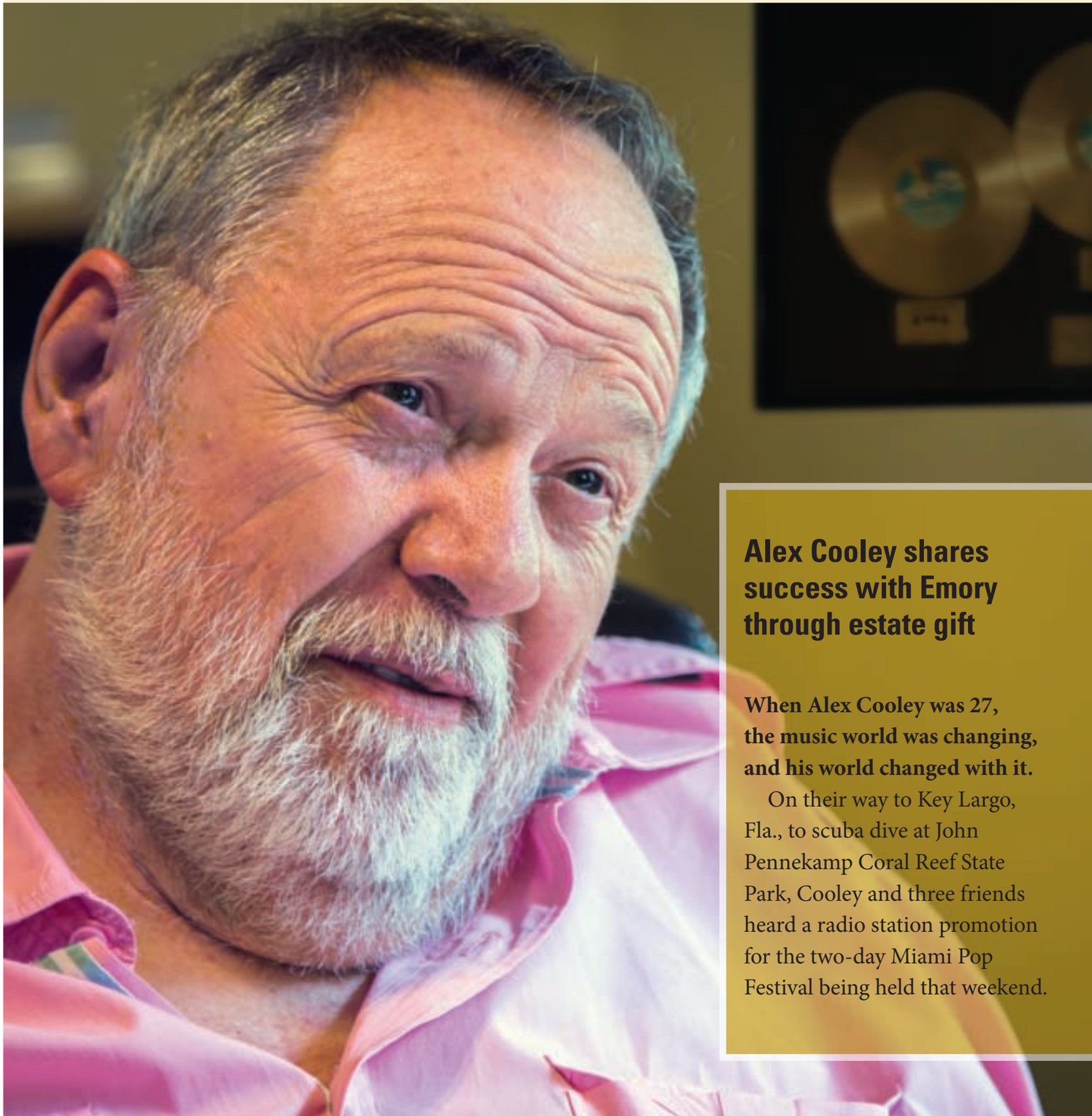
"David is an admirable person, a superb clinical specialist, and a dedicated staff member," says director Timothy Olsen. "He serves as a courageous leader for the visually impaired, having demonstrated firsthand that proper accommodations, training and a positive attitude can enable successful and meaningful employment. We will miss David at the Eye Center. "

Furukawa expects to continue seeing Emory Eye friends occasionally: "I'll be coming back regularly for my eye appointments – and for those of my extended family."

As Furukawa leaves, then, we could simply say, "See you around!" But there's another word that sees things as they truly are. To David, in Japanese syllables that mean "If it must be …," we say, from our hearts, "Sayonara."

Legendary music promoter **ushered rock & roll into Atlanta**

By Maria Lameiras | Photo by David Woolf



Alex Cooley shares success with Emory through estate gift

When Alex Cooley was 27, the music world was changing, and his world changed with it.

On their way to Key Largo, Fla., to scuba dive at John Pennekamp Coral Reef State Park, Cooley and three friends heard a radio station promotion for the two-day Miami Pop Festival being held that weekend.

"They were listing all of these groups I loved, groups that were hard to come by in Atlanta," Cooley says. He told his friends to drop him at the festival and go diving without him.

"I had the most fun I've ever had," he recalls. "At the time I was looking around for something to do, trying to come up with a direction for my life."

Music promotion became that direction, and in the intervening years "Alex Cooley presents…" became a familiar phrase in the Atlanta and national music scenes as Cooley—along with his partner, Peter Conlon—worked his way to being one of the most successful music promoters in the business. But success didn't come easily.

After stints at Georgia State University and the University of Georgia, Cooley dropped out to run a pizza business with a partner. Despite "doing a bad job selling pizzas," Cooley began bringing doo-wop and R&B groups to perform live music in the shop, his first experiences booking bands.

"I made a lot more money doing that, and it was a lot more fun," he says. After his experience at the Miami Pop Festival, Cooley came back to Atlanta and immediately began looking for partners to put on a similar show in Atlanta. He convinced 17 associates to join him in the endeavor.

"We didn't realize it was impossible, so we went on and did it anyway," Cooley says.

Within a year, the group organized the first Atlanta International Pop Festival, held July 4-5, 1969. The festival drew crowds estimated around 100,000 to the Atlanta International Raceway to hear a lineup of more than 20 rock and pop acts including Janis Joplin, Creedence Clearwater Revival, and Led Zeppelin.

A lifelong Atlanta resident, Cooley grew up around the Morningside and Glen Iris neighborhoods near the Emory campus. Whenever anyone in his family needed medical care, Emory was the place to go, he says.

"We made about $15,000 on that first festival and we were ashamed we'd made money. We felt like we needed to give it back," Cooley says, chalking it up to the "hippie" ethos of the time. To make up for it, the promoters held a free concert in Piedmont Park two days after the festival featuring the Grateful Dead, Delaney and Bonnie, and several other bands.

The next year, the second Atlanta Pop Festival, held in Byron, Ga., drew crowds of nearly 500,000 and backed up traffic on I-75 from the small town southwest of Macon "all the way to The Varsity in Atlanta," he says.

Cooley has been a pivotal figure in the Atlanta music industry ever since. Over the years he helped save the Fox Theatre from demolition, develop the Roxy and the Tabernacle into music landmarks, and establish the Music Midtown Festival, an annual three-day Atlanta music institution that ran from 1994 to 2005.

A lifelong Atlanta resident, Cooley grew up around the Morningside and Glen Iris neighborhoods near the Emory campus. Whenever anyone in his family needed medical care, Emory was the place to go, he says.

Cooley himself credits Emory for saving his vision and his life.

In gratitude, Cooley has made a bequest leaving a significant portion of his estate to support the Emory Eye Center and the Division of Cardiology at Emory School of Medicine.

The gift honors retina specialist Baker Hubbard, who treated Cooley when complications of diabetes threatened his sight, and cardiologist Gerard McGorisk, who Cooley says saved his life after a heart attack.

"I feel like I owe a debt for everything they've done for me," Cooley says. "I've had open-heart surgery and more stents than I can count. The eye surgery saved my vision when things were going dim. All of these things speak for themselves to me."

Cooley's career in music made it possible for him to make the generous bequest.

Cooley was inducted into the Georgia Music Hall of Fame in 1987 and in 2004 was presented with a Heroes Award by the Atlanta chapter of the National Academy of Recording Arts and Sciences.

He retired from music promotion in 2004, but admits that he has "stuck one tiny toe" back into the business with his 2011 purchase of Eddie's Attic music club in Decatur, Ga.

Reflecting on his career, he is humbled by the rewards he has gained from doing something that has brought him and others so much enjoyment.

"I'm just glad for this gift to go where it will do the most good," he says.

Faculty Awards:

Hans Grossniklaus, MD, MBA, was inducted into the Academia Ophthalmologica Internationalis (AOI), a prestigious international organization consisting of the world's top academic ophthalmologists. Only two ophthalmologists from the United States were selected this year, with a mere 70 ophthalmologists having membership in this premier organization.

To find out more about our faculty honors and awards, go to: **eyecenter.emory.edu/emory-eye/faculty-awards.htm**

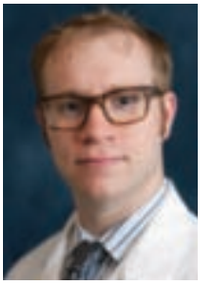
New Faculty:

Jeremy K. Jones, MD, joins the Eye Center's section of glaucoma this summer. He also serves as Grady Memorial Hospital's associate chief of ophthalmology. Jones is a native Georgian and received his undergraduate degree from Berry College. He completed his medical education at the Emory University School of Medicine and subsequently completed a transitional year internship at Emory University. He completed his ophthalmology residency and glaucoma fellowship at Emory as well.

Jones is actively involved in clinical trials investigating new therapeutic options for glaucoma. He is particularly interested in the education of ophthalmology residents and medical students as well as advocacy on behalf of his profession and his patients. His clinical interests include medical and surgical management of glaucoma, laser therapy for glaucoma and surgical management of cataracts.

Jones is a member of the American Academy of Ophthalmology, the American Glaucoma Society, the American Society of Cataract and Refractive Surgeons, the Georgia Society of Ophthalmology and the Alpha Omega Alpha Honor Society.

Jason H. Peragallo, MD, joins the Eye Center's sections of neuro-ophthalmology and pediatric ophthalmology and strabismus. He received his bachelor's degree in biology and biochemistry from Brandeis University. He attended medical school at the New York University School of Medicine and completed residency in ophthalmology at New York Medical College. He then completed a pediatric ophthalmology and adult strabismus fellowship at the Jules Stein Eye Institute at the University of California Los Angeles, followed by a neuro-ophthalmology fellowship at Emory University.



His clinical interests include pediatric strabismus, pediatric neuro-ophthalmology, adult strabismus, and adult neuro-ophthalmology. Peragallo holds an academic interest in the evaluation and treatment of strabismus due to neurologic disease and in the treatment of children with ophthalmic disease from neurologic processes. He has conducted strabismus research in patients with neurologic disorders.

He holds membership in the American Academy of Ophthalmology, the American Association for Pediatric Ophthalmology and Strabismus and the North American Neuro-Ophthalmology Society. He has presented platform presentations and posters at national meetings.

Vandana C. Reddy, MD, joined the section of comprehensive in fall 2012. She received her bachelor's degree in neuroscience at Wellesley College and attended medical school at the Medical College of Georgia, completing her residency in ophthalmology at the Mayo Clinic. She then completed a cornea fellowship at the University of Michigan's Kellogg Eye Center.

Her clinical interests include diseases of the cornea, corneal transplant, cataract surgery, and general eye care. Having an academic interest in mentoring and training medical students and residents, she also has a strong interest in international eye care and has spent time learning and practicing small incision sutureless extracapsular cataract surgeries. Reddy has conducted research in ocular surface disease, corneal sensitivity and corneal nerve density in patients with different neurologic disorders and various other systemic diseases.

Have a plan.

A lifelong Atlanta resident, Alex Cooley grew up around the Morningside and Glen Iris neighborhoods near Emory. Whenever anyone in his family needed medical care, “It’s always been Emory,” he says. He credits Emory for saving his vision and his life. In gratitude, Cooley has made a bequest to support the Emory Eye Center and the Division of Cardiology at Emory School of Medicine. The gift honors retina specialist Baker Hubbard, who treated Cooley when complications of diabetes threatened his sight, and cardiologist Gerard McGorisk, who Cooley says saved his life after a heart attack. “I feel like I owe a debt for everything they’ve done for me,” he says.

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A young RB (retinoblastoma) patient receives his RB Kids Day gifts from Baker Hubbard, who treats these children and leads the festive event each year.

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