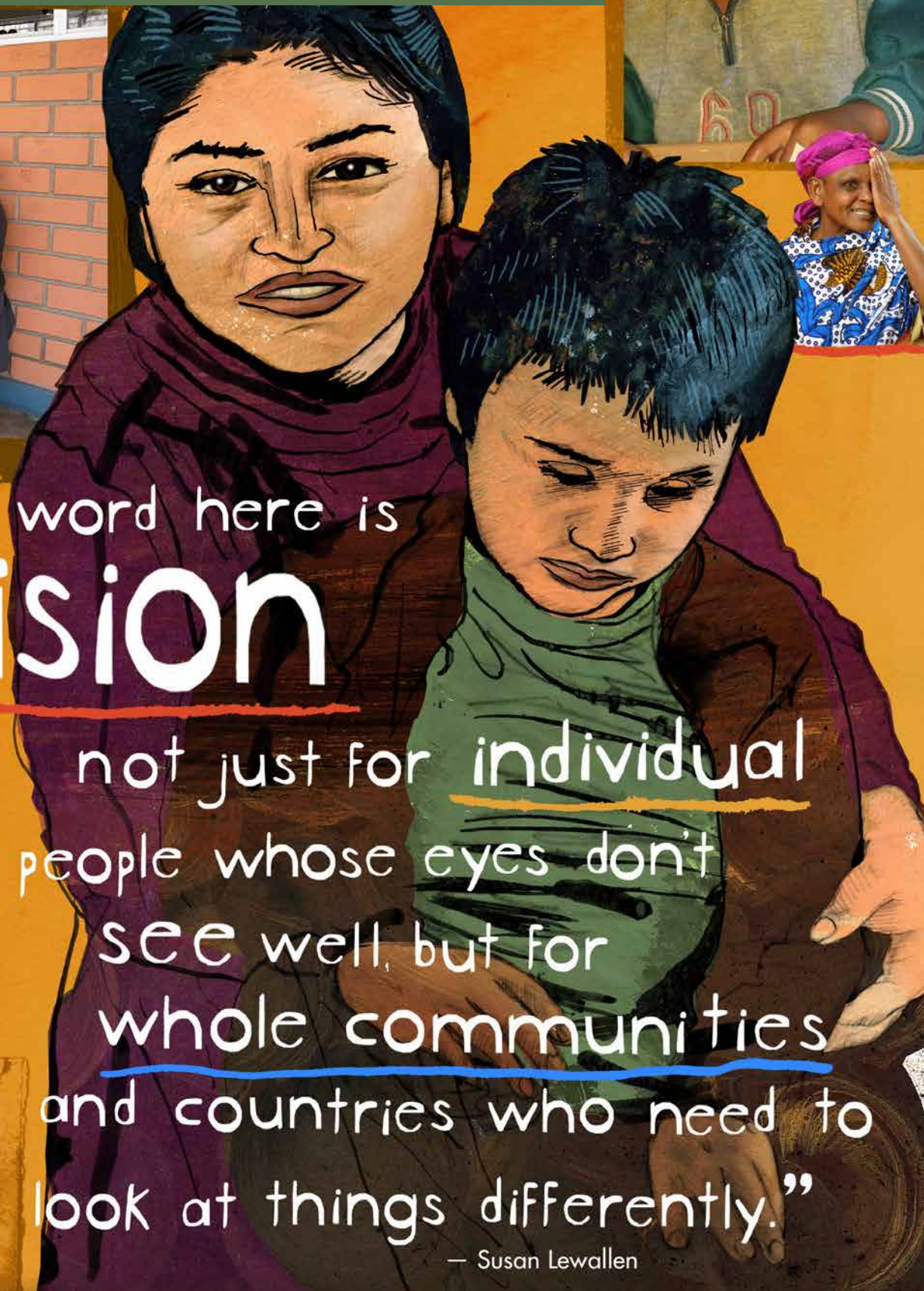


EMORY | eye



"a key word here is

vision

not just for individual
people whose eyes don't
see well, but for
whole communities
and countries who need to
look at things differently."

— Susan Lewallen



From the director | **Looking forward and outward**

“I like the dreams of the future better than the history of the past.” ~ THOMAS JEFFERSON

Our program has a unique history and we owe much to those who brought us to where we are today. We are at the end of the beginning stage in building the Emory Eye Center of the future. We have like-minded, passionate and collaborative faculty who work hard to offer the finest in patient care, teaching and education. Next, we continue to recruit the brightest and most talented collaborative physicians and researchers in the country. We are transforming the Eye Center.



How does the transformation of the Eye Center continue? We work as a team, and capitalize on many of the opportunities around us at Emory, in Atlanta, and beyond. We select unique opportunities that will allow us to distinguish our program and offer new ways to “help people see as well as they can see,” our overriding mission. In this issue, you’ll begin to see how we are expanding further outward with the Emory Global Vision Initiative (EGVI).

The Emory team is going global . . . “Global-Eyes”! We’ve recruited two leaders in international ophthalmology, visiting scholars Susan Lewallen, MD and Paul Courtright, DrPH. Both bring a wealth of experience in community ophthalmology and are now busy framing the architecture for a sustainable and meaningful international program.

Are we going global at the risk of compromising our local efforts? Absolutely not. In fact, we will enhance our local outreach. Two key issues that are important both globally and locally are: health care disparity and access to care. In fact, our program at Grady has worked nearly 130 years (since 1892) to provide care and access to care for the needy of Atlanta and Georgia. Yes, global vision includes the Atlanta community and Georgia. We anticipate that our program has the potential to be a national leader in addressing disparity and access to care issues here at home.

I look forward to the evolution of our Global Vision Initiative and engaging our team at the Emory Eye Center into the larger Emory University and the Atlanta community . . . continuing the evolution of the Eye Center!

Timothy W. Olsen



“Instead of taking exactly what we do here and trying to plop it into another country, we have to figure out how it can work there, and how much it will cost”.—HREEM DAVE, MD

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Expanding our sphere of vision

The eye? Think bigger: The globe.

By Ginger Pyron | Cover illustration by Karen Blessen

Quick: When you read the phrase “Global Vision Initiative,” what do you picture?

If you imagined a few intrepid physicians setting up U.S.-sponsored eye clinics in underdeveloped countries “somewhere over there,” you’re not alone.

That visual cliché, however, is fast disappearing, thanks to community health strategists Susan Lewallen, and Paul Courtright, who were recruited by Timothy Olsen to align new opportunities for research and education for the faculty and trainees at the Emory Eye Center. They are helping get the program off to a rolling start.



The Global Vision Initiative, its mission aligned with that of Emory’s Global Health Institute, involves far more than clinical eye care. Stretching across the vast field of ophthalmology-related service, research, and teaching, it seeks to generate operative and sustainable systems that can be implemented worldwide—not only in countries near and far, developed and developing, but right here in the underserved communities of Atlanta. From the perspective of this global health program, “the world” starts close to home.



Global vision involves local outreach where it's needed as well as serving those in distant countries.

Seeing eye to eye In 2009 a seminal conversation took place over breakfast at the Emory Conference Center. Tim Olsen, Paul Courtright, and Danny Haddad, director of the International Trachoma Initiative (brought together through a connection with a former Emory Eye Center resident, Hunter Cherwek) talked over a multitude of possibilities and agreed on the first step toward a future Emory Global Vision Institute.

Having co-directed with Lewallen the Kilimanjaro Centre for Community Ophthalmology (KCCO) in Moshi, Tanzania, over the past decade, Courtright saw the abundant advantages of partnering with other institutions and organizations in Atlanta, such as the Rollins School of Public Health, the Centers for Disease Control, the International Trachoma Initiative, and the Carter Center.

Inspiration, opportunity, and timing worked in the Eye Center's favor. Courtright and Lewallen, who in 2008 together received the American Academy of Ophthalmology International Blindness Prevention Award, joined the Emory faculty as visiting scholars in February 2011, committed to the initial strategizing on behalf of the Global Vision Initiative.

Seeing differently International outreach is not new to the Emory Eye Center.

Over the past 20 years, for example, the Anderson Fellows endowment has brought a total of nine fellows from Yonsei University in Seoul, South Korea, to learn translational research from our faculty. Recently, working closely with Dr. Luz Gordillo in Peru, we participated in a study on the cost effectiveness of laser treatment for retinopathy of prematurity, in comparison to no intervention. Nancy Newman and Valérie Biousse, professors of ophthalmology and neurology, extend the educational arm of our global health program not only by training many neuro-ophthalmologists from around the world but by serving as guest lecturers and creating courses worldwide. Some of our faculty and residents have traveled independently to other countries to provide treatments and surgeries for underserved people.

But all of us still have a lot to learn about addressing the world's vision challenges. Once Lewallen arrived, she lost no time in opening our eyes.

On February 4, speaking to Emory physicians, she said, "In the developing countries, the major problem is not—as people often think—just that there are too few ophthalmologists. Rather, it's that the available ones may lack the support, equipment, and supplies to work productively. You can have a legion of trained ophthalmologists, but without adequate management systems, blind-

ness will remain a problem."

Lewallen wants Emory's ophthalmologists to understand that while the efforts of individual doctors are useful and important, those efforts alone won't effect big changes. What matters even more, she says, is to establish ongoing programs that provide much-needed services such as training or diabetic screening.

Toward that purpose, she adds, public health professionals can be a tremendous resource of knowledge and perspective: "Once you learn to address a problem from a public health or systems approach, you start to see things in a new way and thus can make more effective choices. For example, if doctors go into a country without first finding out who else is there, unwittingly they may set up a free clinic just 10 miles away from where a local ophthalmologist is practicing, trying to make a living."

Lewallen advises mission-minded physicians, "A more helpful strategy would include doing thorough homework before the trip, and then seeking ways to work within the area's existing systems."

Thinking big "Improving global vision": That's a grand, even potentially grandiose, idea—one that, to become effective, requires its proponents to step way back and get a panoramic view. Two - CONTINUED ON PAGE 8

Taking the initiative ... downtown

Susan Primo—director of vision and optical services and associate professor of ophthalmology—has the distinction of being the only faculty member of the Emory Eye Center with a graduate degree in public health. From her



dual perspective, she thinks the Global Vision Initiative is likely to take the department of ophthalmology in a very productive direction.

“As eye care specialists, we tend to focus on taking care of the eye, not always aware that the eye is just one part of the body system,” she says. “We also need to understand that good visual health influences good overall health.”

She believes that if we want to address big problems of vision, whether here at home or throughout the world, a collaborative effort is essential: “We

need everybody at the table—from policy folks to health education folks to epidemiologists.”

Primo commends the approach that visiting scholars Susan Lewallen and Paul Courtright are taking toward the Global Vision Initiative—“They’re doing an incredible job of jump-starting this much-needed program for us.”—and she particularly applauds the efforts of Tim Olsen: “He doesn’t have a public health background, but he is broadening his thinking and is ready to push this initiative to the next level. I think the Global Vision Initiative will help meet some of the big challenges.”

A couple of decades back, getting her first taste of public health work while training in a community health center, Primo began to develop the passion that she still feels for the

medically vulnerable population: the children, the elderly, the working poor, the uninsured and underinsured, and particularly those with unmet needs for eye care and vision care.

Later, working toward her master’s degree in public health, she began to see that undetected or untreated eye problems involve much more than the eye. “This is definitely a public health issue,” she says, “because it includes questions of access, behavior, understanding, beliefs, cultures—the whole gamut. That’s why it requires a comprehensive strategy.”

“My heart is in clinical work,” Primo acknowledges. Her clinical responsibilities—along with her own initiative—take her downtown, both to Grady Memorial Hospital, where she interacts primarily with medical residents, and to Kirkwood Family Medicine, a neighborhood health center under the auspices of the Grady Health System.

“I spend the bulk of my time at Grady sites,” she says, “because this is the type of work I enjoy most: trying to reduce the incidence or prevalence of visual impairment and visual problems.”

Primo explains that at the neighborhood center, the first task is to attempt a diagnosis, then to create access and “get people into the system”: “Once that’s done, we can help later when they develop problems related to vision loss, whether it’s something simple, such as glasses, or a potentially blinding eye disease such as cataracts and glaucoma.”

Anticipating the next phase of the Global Vision Initiative, Primo says she is eager to help: “What I hope to bring to the table is my public health background. Perhaps I can help secure some grants and funding to sustain the program as well as funnel it in directions that are most useful—not only for Georgia, but also for the world.”

To Dharamsala—Again!

Along with other Emory University scientists, the Emory Eye Center’s Michael Iuvone, Ferst Professor of Ophthalmology



and director of research, returns this summer to Dharamsala, India, in the foothills of the Himalayas.

During his 10-day visit, Iuvone will continue his participation in the Robert A.

Paul Emory-Tibet Science Initiative (ETSI): teaching neuroscience, via lectures and other structured activities, to a select group of Tibetan monks, who then can return to their own monasteries to share their new knowledge.

The project, now in its fourth year, has a mandate (partially from the Dalai Lama) to train Tibetan monks in the sciences. Last summer, six of the monks in the group were selected to further their studies at the Emory campus for the 2010-11 academic year.

Public Health Economics in Peru

In Peru, retinopathy of prematurity (ROP)—a disease of the retina, which causes blindness in premature infants—has been on the rise.

Through a collaborative research project, an Emory team investigated the societal burden of blindness in relation to ROP. Support for the project came from the Emory Global Vision Initiative, the Emory School of Medicine, the Rollins School of Public Health, and an unrestricted grant from Research to Prevent Blindness.

for society.

For an educated adult in Peru, the mean annual income is \$8,000. Thus the cost of ROP treatment for a single child is equivalent to employing 24 educated adults full-time for an entire year.

The lifetime cost savings for society for the next generation is estimated at \$516 million.

Timothy W. Olsen, Eye Center director, led the 2011 study. Through Hunter Cherwek, who trained at the Emory Eye Center, and ORBIS International, a non-

profit organization fighting blindness in developing countries, he became acquainted with the work of Luz Gordillo, a U.S.-trained pediatric ophthalmologist in Lima. An Emory School of Medicine third-year student, Hreem B. Dave, helped develop and execute the project, and Monica S. Zhang joined the

group as translator.

“We were fortunate to have many resources,” Dave says. “Dr. Zhou Yang, from the Rollins School of Public Health, brought a very valuable per-

spective. Her PhD is in health economics, and she helped us figure out how to approach the study in a way that’s logical from a health economics point of view.”

The study and its data, Dave explains, can provide useful guidance for decision makers in Peru: “This economic data, combined with our medical knowledge about the natural history of ROP, will be important to present to health care ministers in Lima. It will help them make appropriate decisions on how to allocate their resources in the future.”

During a weeklong trip to Lima, the group accumulated data, observed the day-to-day clinical work of Gordillo, investigated the support systems available for a blind person in Peru, and determined the resources needed.

“Here, we know what we would need to treat someone who has ROP, and those resources are available,” Dave observes. “But what if you’re working in a rural area without electricity? Instead of taking exactly what we do here and trying to plop it into another country, we have to figure out how it can work there, and how much it will cost.”

Public health, she explains, analyzes local situations and puts them in a cultural context, “so that our work can have the impact that we’re intending. We have to make contact with doctors there who know how to work the system and have been able to deal with minimal resources.”

Dave says with admiration, “Dr. Gordillo’s role in this project cannot be overestimated. She has been the MD equivalent of a Florence Nightingale, addressing this public health issue in her home country of Peru and do-



Results of the study led the team to conclude that increasing the early screening and treatment of ROP not only prevents unnecessary blindness but is significantly cost-effective

Facts from the team’s cost-analysis (in USD):

Estimated total indirect cost to the country, for each Peruvian child with neonatal blindness related to ROP:	\$197,753
Total direct cost to Peru, for ROP-related laser treatment of just one child:	\$ 2,496
Amount that Peru can save, over the lifetime of each affected child, by using the laser treatment:	\$195,257

ing work that sets the stage for other middle-income countries around the globe.”

On May 3, 2011, at the annual meeting of the Association for Research in Vision and Ophthalmology (ARVO), the team presented its study, “The Societal Burden of Blindness Secondary to Retinopathy of Prematurity in Lima, Peru.” The Emory team is hoping to see the study published in a medical journal, so that Gordillo can use it as a resource when she meets with Peruvian ministers of health.

After her May graduation from Emory, Dave begins her residency at Rush University in Chicago. As Dave moves on, another third-year medical student, Christopher Williams, will be taking over the project. He plans to investigate the importance of systemic therapy and neonatal oxygen therapy to lower the burden of ROP in middle-income countries.

“I’d like to keep doing international projects, helping make health care available to everyone,” Dave says. “But I also know it’s important to do that work here.” She has been a frequent volunteer with Student Sight Savers, doing glaucoma screenings at Atlanta health fairs and churches.

Like many who have seen enormous health care needs firsthand, Dave focuses on positive results. “One of the biggest things we realized in doing the ROP study,” she concludes, “is that something small can make a huge difference. If laser treatment can save the vision of only four out of ten children in Peru who are at risk for ROP, that means four children can grow up to be adults and will have a much better quality of life.”

Research by the community, for the community

“Right now, we’re still just planting the seeds,” says international ophthalmologist Susan Lewallen.

Along with confirmed or potential partners—the Lions Lighthouse, Prevent Blindness Georgia, some student groups, and some community groups around the city—she’s envisioning a network that can start changing the future of Atlanta’s vision-related public health right away.

In this endeavor, the first and most important word is *together*. Once people from these interested groups meet around the same table, they can begin investigating the vision issues in Atlanta that they themselves, from firsthand experience, consider top priority. Formed to conduct what’s called “community-based, participatory research,” the network frames questions that will determine their next steps: *What do we already know about vision care needs here? What other questions should we be asking? How do we capture the full story of vision-related problems, from diagnosis and access to treatment and follow-up?*

“The community groups help determine the priorities and pose the questions,” Lewallen emphasizes. “For example, maybe they will decide to talk with community people who’ve gone blind from glaucoma or diabetic retinopathy and to document their journey of care. What barriers did those people encounter when seeking out medical help? What situations—perhaps beyond the patients’ control—added to their struggle?”

From grass-roots concerns and through grass-roots inquiry, the larger network of community partners can learn what needs doing *first*. Then the coordinators of the project can draw on the network’s resources of funds, people, and ideas to set up health education activities and screenings that help address problems of access to vision care.

At this point, the details are still taking shape. “The project doesn’t even have a name yet,” Lewallen says. She’s aware of enthusiasm for the idea among several people at the Emory Eye Center, including Annette Giangiacomo, assistant professor of glaucoma, and Susan Primo, associate professor of ophthalmology.

“These two doctors share a keen interest in glaucoma, which is one of the major causes of blindness in Atlanta’s underserved population,” she says. “And Primo has a master’s degree in public health, plus a lot of experience in the communities.”

In keeping with Lewallen’s tried-and-true principles for all new public health programs, the prospective “community-based, participatory research network” will start small, plan carefully, seek funding, take on a project or two as a group, and then see how its efforts can grow.

With her usual optimism, Lewallen shares her own vision: “I’m looking at this project as the kernel that might eventually become the thriving Atlanta branch of the Global Vision Initiative.”



Community ophthalmology in Tanzania often involves transportation help and outdoor diagnosis.

big, related topics that inform Olsen's thinking about the initiative's future are *disparity* and *access*.

"We know a great deal about how to treat eye diseases," he observes, "but in health care worldwide, disparity—a widening gap in either information or financial resources—is a serious problem. I hope that the Global Vision Initiative can help reduce the knowledge gaps through education."

Courtright explains that the problem of health care access is complex—and growing: "To achieve some level of equity, we don't have to sacrifice the quality of care. But we do have to ensure that people in need of services are in a position to access them. This issue is being faced everywhere in the world, and it's going to be faced here in America."

Partnerships with other aspects of medicine, with public health, and with community groups such as the Lions Lighthouse and Prevent Blindness Georgia he says, are essential to eye care's survival and growth.

Thinking big—and bigger—about global vision can also involve remembering that major challenges exist *here* as well as *there*. "When I talk with friends of the Eye Center about global vision projects that we could pursue in Africa, South America, and Latin America," Olsen says, "someone always brings up local conditions: *What about the health care disparity right here in*

Atlanta? or You know, Grady Hospital is also on the globe."

To Lewallen, that point is crucial. "I came here thinking that the biggest need was overseas, but now, having visited Grady Memorial Hospital and having talked with both Prevent Blindness Georgia and the Georgia Lions Lighthouse—the two main community groups trying to provide eye care for patients who don't have insurance—I see that conditions here in Atlanta are just as urgent. And they may be more important to people here than overseas issues are. I imagine that Emory's Global Vision Initiative is going to be just as active in Atlanta and Georgia as in other countries."

In Atlanta as in Moshi, Tanzania, the problem of *access* includes a range of limitations: Many people lack the means to pay. People needing eye care may not know where to go for help, or may have difficulty getting there. Someone who has a job may be unable to take time off for a medical appointment.

"Follow-up care after a diagnosis poses another big challenge," Lewallen adds, "and in some ways it's an even bigger problem here than in Africa. Locally there's a huge population that's not served. For example, if doctors at a free community clinic find that a patient without insurance needs surgery, they may have to scramble to find a place where that person can be operated on.

In Africa, our work with the KCCO has resolved that complication; we run our outreach clinics from a base hospital, where we can perform surgery as needed."

Since most U.S. ophthalmologists work in medical clinics—where patients come to *them*—they may not encounter problems of disparity and access, may not think about all the systems that must be in place before an ophthalmologist can see patients and save vision. "But as physicians," Lewallen states, "we have a responsibility to think about those things. We need to help make eye care possible for people."

One physician who takes that responsibility seriously is the Eye Center's Geoff Broocker, Walthour-DeLaPerriere Professor of Ophthalmology and chief of service at Grady Memorial Hospital. For the past 23 years he not only has trained hundreds of Emory medical residents but has treated countless patients who need treatment they cannot pay for.

He's also a tireless advocate for this increasingly at-risk population. "For the first time in my professional career," Broocker says, "I'm taking care of patients who cannot get their medications or their surgery. Social workers are telling me that outside funds are drying up, going nonexistent. At Grady, too, resources are limited. How are these people going to get access to care? And

these problems are just the tip of the iceberg for what I think we can extrapolate to health care across the U.S. in the next 10 to 5 years.”

According to Lewallen, there’s still some good news: “Like Dr. Broocker, a lot of concerned ophthalmologists are looking at the local issues and are really concerned about them. I admire those people; they have opened my eyes.”

Courtright adds, “*Global* means the whole picture, and there’s learning to be done on all sides of it. What people from the Emory Eye Center and its partners can figure out within the setting of Atlanta will help provide solutions to issues in other countries. And vice versa: When we learn how people deliver services in settings beyond the U.S., we need to consider what those methods can offer us here.”

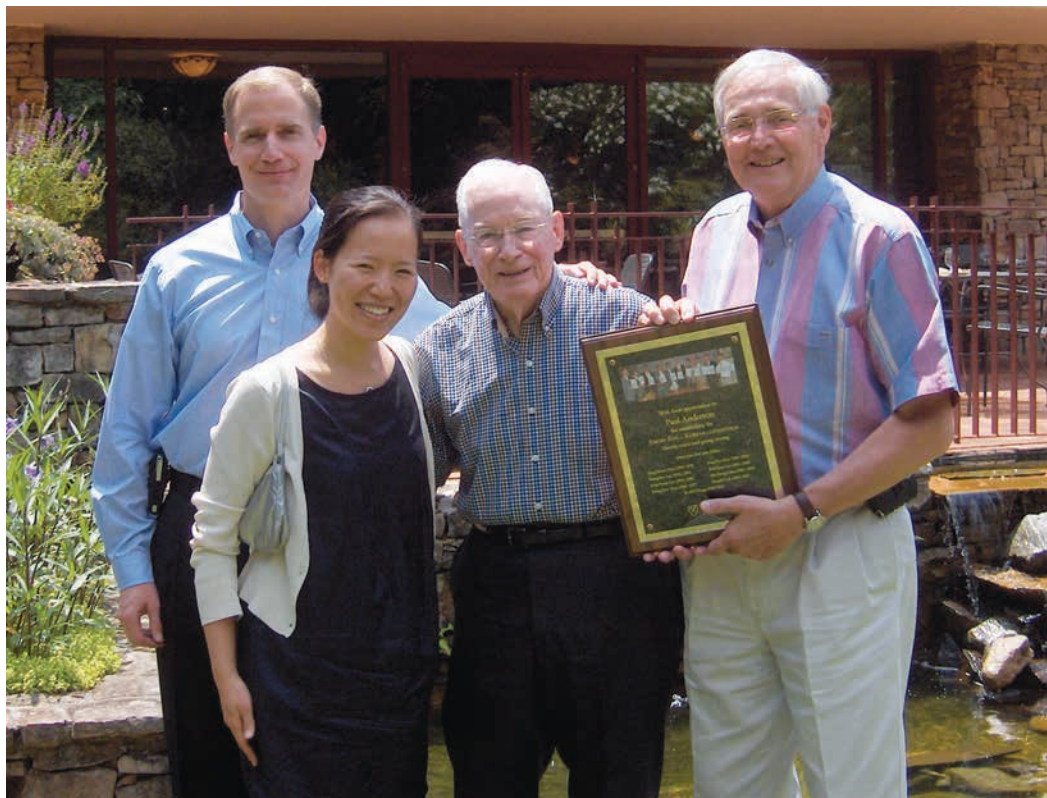
Starting small Six months of laying groundwork, of course, isn’t going to result immediately in a \$10-million grant from the National Institutes of Health, or a plan for solving the cataract problem for the continent of Africa, or an internationally renowned Global Vision Institute. All three members of the core strategic team—Olsen, Lewallen, and Courtright—agree on that.

They also agree on the two most useful ways to spend these months: taking some thoughtful small steps and developing the vision. “We have to start small,” Olsen says. “Before we can look for any major funding, we need to prove that we have the people and the expertise to carry this program through.”

Plans for this phase of the initiative include some of the methods that Lewallen and Courtright routinely employ for setting up community ophthalmology programs in eastern Africa:

1) Identify the stakeholders—as many as possible.

For the Global Vision Initiative, this



Eye Center director Timothy Olsen (left) with Woon Cho Kim, Paul Anderson Sr., and former Eye Center research director Henry Edelhauser.

Translational—and transnational

Translational research: integrating the latest thinking and results in vision research with clinical education and treatments. At the Emory Eye Center, that’s a point of emphasis. And for two decades, thanks to the Anderson Fellowship program, we’ve had the privilege of sharing it with clinicians and scientists from Korea.

Paul Anderson Sr. (’38C-’40L) established the fellowship in 1987 to honor his father, Earl Wills Anderson (1901C), a medical missionary who was instrumental in helping to found one of Korea’s first ophthalmology departments, at Severance Hospital and the medical school now affiliated with Yonsei University in Seoul. The endowment supports approximately a year of study for one Yonsei fellow at the Eye Center every two years.

The longstanding alliance between the Emory Eye Center and Yonsei University has provided for the valuable exchange of skills between countries. The first Anderson Fellow, Eung Kwan Kim (affectionately known as “E.K.”), is now a world-renowned professor who specializes in cornea and refractive surgery at Yonsei University. His fellowship at Emory was under the direction of Henry F. Edelhauser, the Eye Center’s director of research at the time.

And the connections continue. Kim’s daughter, Woon Cho Kim, is a currently enrolled medical student at the Emory School of Medicine. Not surprisingly, a career in international medicine is among her aspirations.

Global views on pediatric cataracts



Nihal El Shakankiri, a pediatric ophthalmologist from Alexandria, Egypt; Emory Eye Center's Scott Lambert; and Emory researcher Carey Drews-Botsch of the Rollins School of Public Health.

In March, the Emory Eye Center hosted an International Congenital Cataract Symposium in New York City, where pediatric ophthalmologists and epidemiologists from Egypt, Tanzania, Bangladesh, India and England discussed the global need to provide surgery for children who have a cataract, now the leading cause

of childhood blindness in many developing countries.

The meeting—supported by funding from industry sponsors, the Georgia Knights Templar Educational Foundation Inc., the March of Dimes, and the von Habsburg Foundation—brought together knowledge and data from around the world, perhaps lessening current disparities in health care.

Directing the event were Emory Eye Center's Scott R. Lambert, R. Howard Dobbs Professor of Ophthalmology and Pediatrics; Edward Cotlier, a research scientist at New York State Institute for Basic Research in Developmental Disabilities; and David Taylor, professor emeritus, University of London.

Lambert is the national study chair for the National Institute of Health's Infant Aphakia Treatment Study (IATS), covered in our last issue of *Emory Eye*—a multi-year, multi-clinic study to determine whether an intraocular lens (IOL) or a contact lens is the best treatment for optimal vision in young children, following removal of the cataract.

list comprises all the potential partner institutions and organizations that the visiting scholars already have begun contacting.

2) Work toward the common vision.

In face-to-face meetings with each stakeholder group, ask questions like these: "What's the situation right now? What do people here want?" Try to understand their vision; find out what synergies they see between what they do now and what the Eye Center potentially can do alongside them.

3) Establish strong links between the Eye Center and the Rollins School of Public Health.

The RSPH has been an obvious place to start. Overlapping areas of interest exist between the Global Vision Initiative and all six of the school's departments, making these two entities natural partners. "We've had a uniformly enthusiastic reception at the Rollins School," says Lewallen.

4) Cast a wide net for advocates.

"At this stage," says Courtright, "We're trying to cast the net as wide as

possible. A strength of Emory—and of Atlanta, as an international city—is the number of local organizations, groups, and even businesses that are involved in global issues and that, along with the Eye Center, can be influential advocates for meeting these needs."

5) Seek small successes; build gradually.

According to Lewallen, "To build a meaningful, sustainable institution, you start with small, feasible projects, endeavors in which you can have successes—and take your time working up toward more ambitious efforts."

She sums up this initial phase as "a great opportunity for us to make vision not only the focus of this initiative, but also the way we go about our work."

Looking ahead Starting small, however, doesn't mean putting big dreams on hold. "Long-term, we're envisioning a transformation of the Emory Eye Center, but right now we're still in the early phase of design," Olsen explains. "Like architects, we're sketching out the different parts of this initiative, considering where they need to be placed, and making creative decisions based on the best use of our resources."

At July's end, when the visiting scholars' initial six-month visit is over, what progress can we expect to see?

Olsen has answers: "I think that we will have explored and formalized the opportunities here. And by July, we also may have begun to apply for some small start-up grants, to get seed money for early-phase projects."

A similar outlook comes from Courtright: "Yes, I think we have the opportunity to get some small grants that will bring the School of Public Health and the Emory Eye Center together on some issues regarding Atlanta—as well as identifying some ophthalmologists who have an interest in international is-

sues and might want to join either Susan or me in some of our ongoing work. We can create ties that can be expanded later, in terms of further grants, additional research, and training programs. And I hope that after six months we will have developed some concrete grants or programs that people can join or support. We have to build piece by piece, choosing the activities that are most desired and practical both for the Eye Center and for the global health program.”

And finally, there’s an all-important question: *Who will lead Emory’s Global Vision Initiative?*

With luck, that question, too, will be resolved during this time period. To Olsen, “Recruiting a leader is one of the main goals of this initiation phase. We need to set the architecture of this program, then bring in a leader who can take it over and make it what she or he believes will become one of the most effective programs in the country at organizing and addressing these priorities.”

“That’s one of our primary challenges,” Lewallen adds, “because leading this program requires an unusual mix of skills. It’s going to need someone who’s completely dedicated.”

New relationships, new hope Jeffrey P. Koplan, director of the Global Health Institute and Emory’s vice president for global health, affirms the team’s preliminary work:

“In the immense field expertise of Drs. Courtright and Lewallen, we have a real treasure. Tim Olsen’s leadership is perfect: He’s seeking areas in eye health that make sense for his department and his staff of professionals, students, and trainees. And he’s looking at multiple ways to put his ideas into place. With these assets in addition to our already very strong, academically gifted ophthalmology department, the Global


Vision Initiative ought to go very well. It’s the right thing to do, and it’s a highly productive thing to do.”

In the future, Koplan hopes to see relationships established across the university, creating new links between people who seek answers about eye disease. He also envisions an increasing number of opportunities for residents and fellows to help create programs in developing countries. “My other hope and expectation,” he says, “is that five or ten years from now, robust relationships will exist between Emory’s department of ophthalmology and several hospitals and universities around the globe.”

At the everyday level of right here, right now, there’s also the hope expressed by Geoff Broocker: “We need to heighten the awareness of people in our own country about what’s happening here—the local situations that mirror global ones and that may escalate until they equal the crisis of health care access



elsewhere in the world. If the public health approach can solve vision problems in Tanzania, maybe it can solve similar problems in Atlanta.”

About the work of this six-month period, Broocker says: “I’m excited, because Dr. Lewallen may open a window for change. People are listening.” 

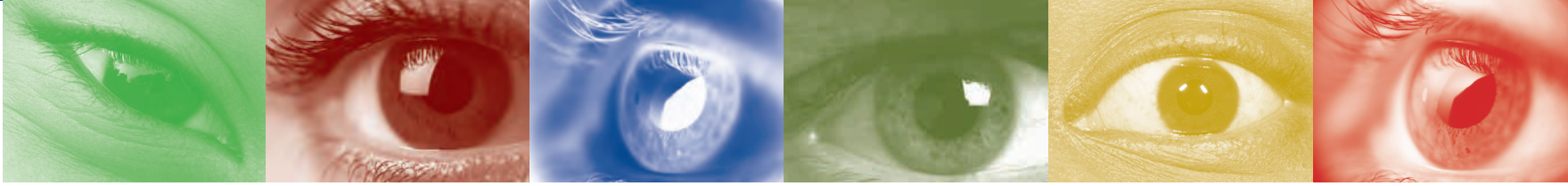
Molecular Vision – from West to East

Since 1995, a remarkable pipeline of scientific information related to molecular biology, cell biology, and the genetics of the visual system has been pouring into the Emory Eye Center and, after review and approval, has been pouring back out into the scientific world at large.

This conduit—the award-winning, one-of-a-kind, peer reviewed online journal *Molecular Vision*—is the brainchild of three Eye Center faculty: Jeffrey H. Boatright, Robert L. Church, and John M. Nickerson. A highly successful open-source public journal (no cost to anyone with internet access), it offers a novel means of addressing financial and coverage disparity in the publishing and transference of knowledge. And it ranks in the top 15 percent of all scientific journals in either hard copy or online.

Up until now, the bulk of financial responsibility for the electronic journal has fallen on the Eye Center. Great news in the lab and elsewhere, however, is that the situation has changed.

With deep appreciation, we announce that *Molecular Vision* is now jointly sponsored by our partners at Zhongshan Ophthalmic Center, Sun Yat-sen University, P.R. China.



Cosmetic procedures at Emory Eye Center

A delicate balance of surgical prowess and art

The eyelids and structures around the eye are critical for vision. Any impediment, whether caused by disease, disorder or simply the aging process, may interfere with normal vision. Oculoplastic surgical procedures in or around the eye are delicate indeed. Oculoplastic trained physicians are able to help patients look better, but more important, to help them *see* better. Specialized corrective surgical procedures and enhancement treatments around the eye help provide both improved appearance and function.

Emory Eye Center oculoplastics surgeons combine extensive training in

Fast Fact

In 1984, Wojno co-authored the initial paper on the use of botulinum toxin to treat blepharospasm (eye spasm), based on his original investigation of its use in his patients. Today, the word “Botox” is a commonly used term for a popular cosmetic treatment, an outgrowth of that research.



One happy patient

I was a patient of Dr. Wojno and he diagnosed me with Graves disease in November 2009. I would just like to thank him for making my eyes look normal again (beautiful)—just in time for my son’s wedding. My last surgery with him was in February 2011, and my son was married on March 12. ...I am so grateful for him. Thank you, Dr. Wojno.—CYNTHIA BOHANNON

ophthalmic plastic surgery along with their expertise in ophthalmology to provide expert reconstructive and cosmetic services.

“Oculoplastics physicians are uniquely qualified to handle the subtleties of problems in the eyelid region,” says Ted Wojno, James and Shirley Kuse

Professor of Ophthalmology and director, section of oculoplastics, orbital and cosmetic surgery. “We have extensive training in the diseases and disorders of the eye and surrounding areas, and also in the enhancement of the individual’s appearance.”

As most people age, their appearance may change—sometimes dramatically—due to the loss of skin elasticity over time, damage from sun exposure, and gravity’s effects on eyelids and brows. Drooping eyelids, for example, can block a portion of the vision in some people. Cosmetic services addressing these issues can bring a “refreshed” look to patients *and* expand their field of vision.

Emory Eye Center’s oculoplastics team offers an array of cosmetic services in addition to specific eye enhancing surgery. Directed by Wojno, the team also includes the expertise of oculoplastics specialists Joseph Walrath and Brent Hayek.

Services provided include reconstructive, plastic and cosmetic procedures. Facial peels, facial fillers, and other treatments can aesthetically enhance the appearance of patients. They can also benefit those who have suffered injuries, accidents, or have had tumor removal.

Before any procedure, Eye Center physicians always evaluate patients to determine if they are good candidates for each specific facial cosmetic treatment.

Anything but a “typical” teen —an RB kid hits it out of the park



On one special day each year, we honor the lives of our young retinoblastoma (RB) patients. Held in early summer, the Emory Eye Center’s RB Kids Day helps us celebrate the fact that today, more than 95% of RB children survive this disease. This wasn’t always the case.

RB is a tumor of the retina (the back of the eye). RB can be hereditary or non-hereditary. When hereditary, it can affect both eyes and sometimes other organs of the body. The non-hereditary type will typically only affect one eye. RB mainly affects young children and occurs in one in 20,000 live births. In its most serious form, it can invade other parts of the body and may result in death. In decades past, RB was fatal. Today, the statistics are much better.

And RB teen Megan Nesbit is very special testament to that new reality. But she’s anything but a “typical” teen. Having overcome the things that RB could have made difficult for her, she not only excels in sports but she’s highly involved in high school organizations.

In addition to numerous school leadership activities, Megan plays varsity softball. In fact, she has played for three years and has been awarded a full softball scholarship to Mississippi State University (MSU), where she will join two older sisters, Courtney and Erin, also on the team.

Although coming from a family of talented athletes, Megan’s drive to excel at sports was even more remarkable . . . because she has only one eye. Like some RB kids, she had surgery to remove the affected eye. And her coach firmly states that “Megan would be considered a great player if she had *both* eyes. She has worked hard at overcoming the disability that would impede her game,” he proudly states. “Some things might seem like a big obstacle, but they can be overcome,” Megan adds.

About her scholarship and her next year at MSU, she says, “It’s the most amazing experience of my life. I’ve worked at softball really hard since I was little and didn’t let anything stop me.”

The world opens up for one aspiring teacher



Cornea specialist Bradley Randleman with Supriya Woidtke at her one-month follow-up, where her vision was found to have improved even more.

Supriya Woidtke is always up for a challenge. That's good, because her childhood and college years were sometimes a struggle—because she couldn't see well. Her visual acuity was so bad that normal day-to-day activities were difficult. Her myopia (nearsightedness) was at -32 and -34 diopters—making her legally blind. To give some perspective, most people with a -2 or worse prescription are not legal to drive without glasses, and those -4 or worse are considered legally blind without correction.

She was dependent on “Coke-bottle” glasses or thick contacts, just to get around. Of course, that crucial rite of passage for most teenagers—driving a car—was out of the question. And her lifelong dream of becoming a teacher was made all the more difficult.

Recently, the 29-year-old was up for one more challenge when she had cataract surgery, with the real possibility that it might not help her sight because of her many vision issues. “Dr. Randleman told me that we could try this,

but that it might not work,” she says. “I appreciated his honesty and was willing to have the surgery anyway. I'm so glad I did!” she continues. “After the first eye was operated on, it was just wonderful to see normally within the first few days. I would have done anything to experience how normal people see, even for a short time,” she explains.

Her journey to Emory might not have happened had it not been for a caring co-worker at the restaurant where she works. Her friend suggested Woidtke come to Emory because her husband had recently undergone LASIK surgery there and was very pleased with his results. Woidtke began the process by calling Emory and discussing options before traveling from her South Carolina home.

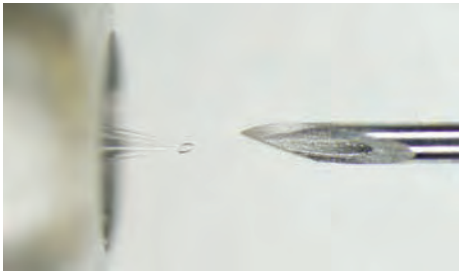
Understandably cautious, Woidtke had often been told for years that her eyesight would only get “worse.” Moreover, she had been a preemie and arrived in the United States for adoption a mere seven weeks after her birth

in India. Doctors tried to help her fragile situation by doing what doctors did in those days—putting her into a life-sustaining incubator with the typical high levels of oxygen. As a result, she developed retinopathy of prematurity (ROP). ROP can cause a series of destructive retinal changes. In her case, it ultimately caused a retinal detachment and cataracts.

“Supriya's cataract surgery provided her routine intraocular implants, with the strongest lens available, so that her vision has gone from best, corrected vision prior to surgery of 20/150 and 20/100, to 20/40 now without any correction,” says Bradley Randleman, her surgeon. “She is now functional for her life's activities, and a new world has opened up for her. The entire team at Emory Vision is very happy for her. In fact, we all cheered when her vision was obviously so much better right away.”

She's already onto a new life, dramatically enhanced by her new-found vision. To top off all the good news, she has been hired to begin teaching elementary students next fall in Beaufort, S.C., the happy culmination of that lifelong dream.

No longer is she self-conscious about her vision. Because she hid it well over the years, her restaurant customers may not even notice the change in their favorite host. But for Woidtke, it is a new world.



Smaller is better

A goal of ophthalmology researchers is to deliver medication to the back of the eye in a selective and minimally invasive way.

An Emory Eye Center scientist and two fellow researchers have recently been awarded a U.S.

patent for application of microneedle technology, designed to do just that. Filed for in 2007 and awarded in April 2011, the patent (US 7,918,814) was awarded to Henry F. Edelhauser, Emory Eye Center's former director of research, along with Mark Prausnitz, professor of chemical and biomedical engineering at the Georgia Institute of Technology, and Ninghao Jiang, a research graduate student at Georgia Tech, now employed at CNA, a non-profit research organization in Virginia.

Because the microneedle apparatus is so much smaller than currently used intravitreal needles, there may be less discomfort for the patients. Many patients with age-related macular degeneration have injections on a regular

basis. In the future, the same microneedle technology may be used to inject medication directly into the eye for many other ocular conditions, such as glaucoma, eliminating the need to put drops in the eyes every day—a real chore for some patients.

“The beauty of this hollow-tubed microneedle is that it can serve as a route for targeted drug delivery for retinal disease using an array of delivery suspensions such as microbeads and microbubbles,” says Edelhauser. “Moreover, a sustained delivery can be achieved with proper formulation design. In the future, this new process should be helpful in the treatment of several ocular diseases.”

Biology of the Eye 10 years later

It is rare for an Emory College class to stay in the top-ranked offerings year after year. And if it is the singular class taught to undergrad and grad students by an Emory School of Medicine department.

Biology of the Eye is offered each spring semester within Emory Eye Center's Learning Resources Center. What's also unique about this course is that there are some 16 faculty members teaching various aspects of eye anatomy, physiology, diseases, disorders, genetics and even evolution of the eye. One student remarked that having all those teachers make it seem a new class each time.

During a recent spring class, Emory junior Luke Reimer observed, “This course is very engaging because each faculty member makes the material all the more interesting with his or her own experience.” Reimer plans to attend medical school following graduation.

Emory Eye Center researcher John Nickerson, who coordinates the class, along with former research director Henry Edelhauser, who conceived of it some 10 years ago, say it's a rich training ground for science students who ultimately may want to go into medicine or do medical research. “After taking this course, these students know more about the eye than ophthalmology first-year residents,” Nickerson proudly states.

Edelhauser echoes that thought: “Our students know everything about the eye—from embryology to diseases, to conditions and surgery. They come away knowing what to look for in a good eye exam,” he explains.

“These students learn to understand the complexity of the visual system, as well as the importance of vision to

the quality of our lives,” says Eye Center director Timothy Olsen. “We are proud of our faculty who graciously provide this opportunity for interested undergraduates at Emory.”

L to R: John Nickerson explains the visual transduction cascade to students Luke Reimer, Remy Weinberg and Kevin Santana, all Emory undergraduates. Two of them plan to attend medical school, and one, a school of public health.



What's new in retinal treatments – a look at the last 10 years

The Medicare population is a growing demographic that can experience multiple age-related health issues. Among those concerns is age-related macular degeneration (AMD), the leading cause of vision loss in those

over 65 in the United States. More than 1.6 million people in the U.S. have one or both eyes affected by the advanced stage of AMD.

tor) has revolutionized the treatment of wet AMD. A protein, VEGF triggers the development of weak, abnormal blood vessels that grow under the retina. Those new vessels cause vision loss by breaking, bleeding or simply leaking fluid into the macula. The anti-VEGF injections have proven to be able to dry up the leaky blood vessels in wet AMD patients, much more effectively and with better outcomes than prior options.

A national study by the NIH found that there were significant treatment changes during 10-year period, particularly in the treatment for wet-stage AMD and retinal detachment.

- For “wet-stage” AMD, the study showed an increased use of intravitreal injection (within the eye) for AMD, such as bevacizumab (Avastin®) and ranibizumab (Lucentis®).

Other findings

- For retinal detachments, the study found that the changes in treatment pointed to greater use of vitrectomy, a delicate surgery to repair the detachment, over scleral buckling procedures.

“These results were not surprising and mirror the treatments of the last decade in general, not just the Medicare group in the study,” says Olsen.

“The national trend is toward optimized technology, less invasive and more effective surgeries, and the increased use of pharmacotherapy, including intravitreal injections for treatment of retinal disorders,” he continues. “After 2005, we no longer relied solely on laser-based therapy for wet AMD and for retinal detachments, surgeries are less invasive, with equivalent, if not better, outcomes.”

He further explained that the primary treatment for diabetic macular edema remains laser treatment; however, accompanying intravitreal injections are rapidly becoming more commonplace and add to the long-term benefits of laser therapy in treating diabetic retinopathy.

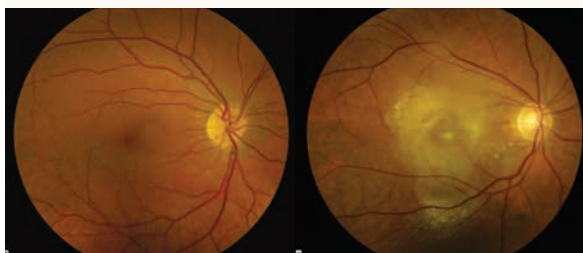
This is all good news for retinal patients, who obviously prefer less invasive procedures and fewer days downtime from surgery. The future may hold even more revolutionary treatments. Through important clinical trials and basic science research, the Emory Eye Center faculty members remain dedicated to finding the most innovative and appropriate treatments for all eye disease and disorders. Stay tuned.

BREAKING NEWS:

Two drugs equally effective for AMD

Emory Eye Center and other study centers have been a part of a two-year national clinical trial evaluating two drugs for age-related macular degeneration (AMD). Results from the first year of the trial among 43 eye institutions show that Avastin—a drug approved to treat some cancers and commonly used off-label to treat age-related macular degeneration (AMD)—is as effective as the Food and Drug Administration-approved drug Lucentis for the treatment of AMD.

The report, from the Comparison of AMD Treatments Trials (CATT), was published online in the *New England Journal of Medicine*. CATT is funded by the National Eye Institute (NEI), a part of the National Institutes of Health.



Fundus photography shows a normal retina (left) and a retina with advanced AMD (right).

over 65 in the United States. More than 1.6 million people in the U.S. have one or both eyes affected by the advanced stage of AMD.

When Emory Eye Center director Timothy Olsen was recently interviewed about the differences in treatment for seniors who have AMD, he explained that they have changed significantly from just a few years ago—for the better. However, despite better therapies, the disease still progresses and our attention is now looking toward more early-stage prevention as well as late-stage reconstruction of lost or damaged tissues. At present, there are no cures for macular degeneration.

For those with the “wet” type of AMD—the advanced stage—which is more rapidly damaging to vision than the “dry” type (slower progression), standard of care has gone from laser just a decade ago, to photodynamic therapy, and in 2005, evolved to pharmacologic therapy with intravitreal injections. Specifically, the evolution of anti-VEGF drugs (vascular endothelial growth fac-

The eyes have it



A noted physician once said that if you were given just one inch of the human body to examine in order to do an overall assessment of a patient's health, it would be the eye.

That rationale also drives a new study underway at Emory Eye Center.

Doctors have known since the early days of ophthalmology just how important the eye is in telling them about the condition of the entire body. “The eye is indeed a window into how diseases affect the body,” says Beau Bruce, neuro-ophthalmologist at the Emory Eye Center. “Patients who come to us with hypertensive retinopathy, for example, show us how far their hypertension has progressed by the condition of their retinas,” he continues. “The eye is an important marker for whole-body health.”

Those patients who come into the emergency department with headaches, neurologic disturbances, visual changes

or severe high blood pressure, need a timely and accurate assessment of their overall condition. Certain conditions can be overlooked when an eye exam is not part of the overall evaluation, and most of these patients would never guess that a look inside the eye is what they need.

In the past, that crucial eye screening has been difficult to obtain because it requires an ophthalmoscope, an instrument that is difficult for most physicians and emergency room doctors to use. Additionally, most physicians cannot afford to take the additional time required to dilate a patient's eyes in order to examine the back of the eye.

A new, promising alternative has emerged in the recent study still underway at Emory. The new tool, non-mydratic fundus photography, a technology that by-passes the need to dilate the eyes, is relatively quick and easy. The patient simply looks into a special camera

attached to a computer. It takes about two minutes and can be performed by a nurse in the emergency room.

Called the FOTO-ED (Fundus Photography vs. Ophthalmoscopy Trial Outcomes in the Emergency Department), the study hopes to prove that using the new device will result in the detection of ocular fundus abnormalities that would otherwise be overlooked in the emergency department (ED). Abnormalities of the fundus area—including the retina (which works like camera film) or the optic nerve (which carries optical impulses to the brain)—can signal an array of serious problems that need prompt attention. After the image is captured by a nurse practitioner, the photographs can be reviewed by the ED doctor. When there are questions, neuro-ophthalmologists or ophthalmologists can be consulted and the images shared in real-time through the internet.

Phase I of the study revealed that the photographs were of diagnostic value for 97% of the enrolled patients. “We found that 13% of the patients at Emory University Hospital ED who were photographed had something the ED doctors needed to know,” says Bruce. “And 82% of those findings were only detected with the use of the new camera.”

This new method easily detected relevant ocular fundus findings that were otherwise overlooked, and the photography was performed efficiently by non-physician staff,” he continues. “We look forward to continuing phase II of this study with our nurse practitioners to determine the value of placing this device in emergency departments everywhere.”

Designing with you in our vision

A major renovation is currently underway at the Emory Eye Center with the expressed goal of optimizing the patient-physician encounter.

We've taken on this project with patient and family-centered care in mind. We have sought input from our patients directly, as well as our talented physicians and technicians.

We've recruited a premier, ophthalmology-specific architect to help us re-structure our aged facility and transform our center into a state of the art facility. This should be good news for our patients who have frequented the bustling third floor clinic, the busiest clinic at all of Emory! We are very pleased to announce that the much-anticipated redesign of our entire third floor clinic has begun.

This construction project follows last year's extensive renovations to the Learning Resources Center (LRC), home to our educational programs. Fully accommodating the growing number of students, residents, fellows as well as our community partners who attend the lectures, seminars and workshops, the LRC serves as the home of our residency program, a point of pride for our educational mission.

As we began tackling the formidable task of redesigning and streamlining our third floor clinical areas, we incorporated a sophisticated computerized modeling program with assistance from colleagues at the Georgia Institute of Technology. The modeling predicts the impact of the renovation, once completed, specifically on *patient wait times*. As we gain better control of the complexities of patient flow, scheduling, call center, and technical work-ups, we hope to decrease the overall wait-times for our patients. We're certain that these

efforts, while never perfect, will improve our patient and staff satisfaction.

The process

Months before renovation began, Eye Center employees met in working groups to explore the opportunities that a major space renovation could do to improve patient care as well as their daily work life. The process presented an opportunity to rethink and redesign how we offer the best possible care to our patients and how we work more efficiently to provide this care. We went to the healthcare experts—inside and outside of Emory—who model best practices in their clinics and institutions. During the informative process, we've gained perspective and received helpful advice from those who have undergone similar renovations.

The changes will ultimately involve all clinics on the third, fourth and fifth floors of our facility. We've changed the design of the clinics and overall floor plan in order to optimize patient flow,

centralize our technical areas and core services, and add more focused space for the patient-physician interaction.

The "new" third floor will become home to the retina, cornea, comprehensive and contact lens services. The renovated fourth floor will become home to our glaucoma, oculoplastics, and neuro-ophthalmology services, with an emphasis on developing a more efficient visual field core as well as a separate technical core area. Pediatrics will develop a unique floor plan and move to the fifth floor.

"Our mission throughout the upcoming renovations is to do everything we can to create the ideal patient experience," says Andy Garrard, Eye Center administrator.

Following renovations, we will be able to serve patients with more modern exam rooms, updated, comfortable and plentiful waiting areas—no waiting in our hallways—and a process that is more streamlined from check-in to check-out.

An architect with an eye for ophthalmology

Paul Katz, founder of the Medical Planning Associates of Minnesota, is an architect dedicated to creating beautiful, streamlined, spaces for ophthalmology practices around the world. Katz and his team design with an eye to maximizing existing square footage and a deep understanding of the unique space needs of ophthalmology practices.

"We've worked rigorously with the Eye Center to ensure this design suits everyone's needs," says Katz. "We're using visual and architectural techniques to open up the existing space and make the experience more comfortable, functional, and visually pleasing for everyone—the patients, staff and doctors."



The upcoming renovation, a multi-year, multi-million dollar project, will encompass more than 33,000 square feet. It will improve almost every inch of the clinical space in our main campus space, The Emory Clinic, Building B.

Lighting up our world

“We see because our visual system works well,” says Charles Darnell. “And what our eyes have to do first is take in light.”

From his many years’ career and ultimately vice chairman position at Lithonia Lighting, a longstanding world provider in the industry (now an Acuity Brands company), to his current role as vice chairman of the board at Lighting Science Group in Satellite Beach, Fla., Darnell has spent over half a century creating better light for people to see by.

Now technically retired, he’s still pursuing solutions that enhance visual acuity—such as consulting on lighting design for the Emory Eye Center’s clinical renovations.

An evolving technology

Everywhere he goes, Darnell pays close attention to light. He sees his work with lighting both as a science—the study of dispersed and scattered light particles—and also, through human efforts to control those particles, as an art.

“The technology of light is growing exponentially,” Darnell says. “For many years, all we had was the incandescent light bulb. Then we developed fluorescent lights, and then the sodium and mercury lights that illuminate expressways and stadiums. When energy conservation became an important issue, we started exploring how to create the light in energy-efficient ways. If we move forward and adopt light-emitting diode (LED) lighting, we can save enough energy to keep from consuming the planet we live on.”



Andy Garrard (left) discusses blueprints with Charles Darnell.

A new project

In 2009, after his successful laser surgery at Emory for vitreous detachment and a torn retina, Darnell joined the Eye Center’s Advisory Council. As a board member, he lent his expertise to streamlining the use and storage of medical records. When the third-floor renovation began, he agreed to serve as lighting consultant.

Darnell attended several meetings with director Timothy Olsen, David Wolf, senior director of development, and Andy Garrard, department administrator: “We started asking, What is the best lighting for eye examinations and treatments?”

To soften the light and to avoid glare, Darnell suggested cove (indirect) lighting for treatment rooms. Architect Maurice Yates designed the ceilings to accommodate a cove structure. With LED lights behind the cove, Darnell says, “you get the best possible light for an examination. Dimmed, it can be extremely soft, down to nothing—or it can be as bright as needed.”

“In fact,” he continues, “I think we’re the first ones to do it this way.”

Darnell praises Olsen’s idea of involving the Eye Center faculty: “He wanted the ophthalmologists and eye surgeons to have a say, so we built a mockup and invited them to take a look. When they saw the cove lighting—an excellent choice to replace incandescent bulbs—they really liked it,” he says. “They’re excited about using it with patients.”

A generous offer

Besides contributing his technological and creative input, Darnell made the Emory Eye Center a generous and helpful offer: to work with the Eye Center to ensure that it received the best possible price on its new lighting. His expertise has saved Emory substantially on the cost of re-lighting patients’ clinical experience from start to finish.

“And this project is only the beginning of how lighting can enhance medical settings,” Darnell says. “Lighting Science has invited Emory doctors to our labs here in Florida to help us study possible new advances. We know light, but they know the eye—and that’s what we’re here for.”

To Darnell, the development of the Eye Center’s new lighting reflects remarkable collaboration.

“The Emory team and the team here at Lighting Science have put our heads together and experimented to create a new environment for light health,” he says. “You know, lighting guys are just lighting guys; we do what we can. The real heroes are the eye doctors and eye surgeons, both here and across the nation. They help get the light into people’s eyes, where it belongs.”

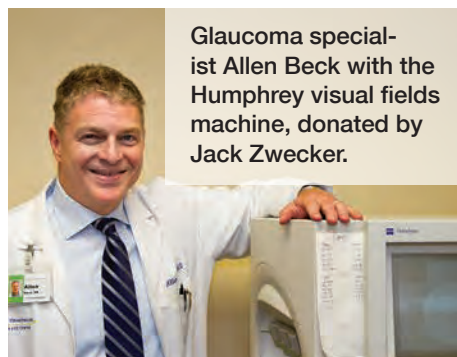
When giving comes naturally

Once Jack Zwecker decides something is worth doing, he stays with it. He's a longtime resident of Atlanta. A longtime patient at the Emory Eye Center. And a longtime donor supporting Emory's glaucoma research.

"I can't even think how long it's been," he chuckles. "One time the Eye Center needed a new, state-of-the-art machine for checking your field of vision, so I bought it for them. Over the years, I've continued giving small donations. Then about four years ago, I decided to make a large gift. Since I was personally involved with the problem of glaucoma, I thought it might be nice to help solve that problem—for me as well as for the rest of the human beings in the world."

For Zwecker, giving is second nature. "It's in my upbringing to do what I can for the community," he says. "The Jewish word *tzedakah* means charity, which is basic to our way of life."

Another enduring course for Zwecker is the friendship that he and his wife, Sophie, enjoy with Donna Leef, senior clinical trials coordinator at the Eye Center.



Their acquaintance, Leef recalls, began at least 25 years ago, when she was relatively new in town. "Jack Zwecker made me feel at home in Atlanta. He and Sophie are extraordinary people—very caring, very honest, very humble. It is certainly my honor to know them."

The admiration is mutual. Zwecker, who calls Leef "a top-notch person," remembers his first impression of her: "I noticed how caring she was with the patients. If a person couldn't see well, she took the time to take them downstairs and make sure they got to their car. She's very attentive to people."

For many years, Leef has noticed and respected Zwecker's ongoing support of causes he cares deeply about. "His giving comes from a sense of generosity and caring, and partly from his heritage," she says. "Tzedakah is part of living a spiritual life, and I truly believe he practices it."

"If I know Jack's in the building," Leef adds, "I make a point of finding him."

With longtime modesty, Zwecker sums up his commitment to the Eye Center: "It just gives me a great deal of pleasure, to know I'm doing something that helps things along—at least, I hope I am!"

RANKINGS Emory Eye Center ranked among the Top Ten slots with other distinguished U.S. academic eye institutions in the 2010 survey of ophthalmology programs conducted by *Ophthalmology Times*.

In the October 15, 2010 issue, we placed in the "Best Residency Program" (#9) and in "Best Clinical Program" (#10) categories. Additionally, in July 2010, Emory placed alongside other top eye institutions in the #14 spot of *U.S. News & World Report's* annual survey.

Emory Eye Center receives RPB funding for continued research

Emory Eye Center received a one-year departmental grant for \$100,000 from Research to Prevent Blindness (RPB). The grant will help support research into the causes, treatment and prevention of blinding diseases and will be directed by Eye Center director Timothy Olsen.

To date, RPB has awarded grants of more than \$3 million to Emory for eye research.

"Research to Prevent Blindness is a unique and highly specialized organization, dedicated to supporting research at all levels, says Olsen. "The unrestricted departmental grants allow us to innovate. We use these funds primarily for research infrastructure and for pilot projects from our young inventive faculty members. Our goal is for most of these small projects to evolve into big projects with extramural funding with an even greater impact. Such projects would not get off the ground if it weren't for RPB funding. We are tremendously grateful to RPB for helping us fulfill our research mission."

Knights Templar helps fund pilot programs



Pediatric ophthalmologist Amy Hutchinson (foreground) works with fourth-year Emory School of Medicine student Caroline Cromelin (rear) and DeKalb County Schools' Cindy Lou Harrington (middle), who teaches children with visual impairments. Harrington's idea for a functional vision assessment technique helped generate what may become a new visual acuity chart for testing non-verbal children, seen here.

The Emory Eye Center was recently awarded \$39,000 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 more than \$450,000 to the Emory Eye Center.

The 2011 awards are the following:

- A new visual testing model in pre- or non-verbal children, a project of pediatric ophthalmologist Amy Hutchinson. The project will take a previously developed, informal functional visual assessment tool, get a better idea of what level of vision that test actually measures, and then try to rework the test into a more formal test of visual acuity that can be used in handicapped, non-verbal, non-English speaking and very young children.
- Support for the Georgia Knights Templar Lecture in Pediatric Ophthalmology, presented by Alan Scott, of Smith-Kettlewell Eye Institute, California Pacific Medical Center.
- Support for the International Pediatric Congenital Cataract Symposium, held in New York. Pediatric ophthalmologist Scott Lambert coordinated the international event that ad-

ressed health care disparities in the treatment of children born with a cataract. Participants included physicians and researchers from the United Kingdom, Africa, India and Bangladesh and Egypt.

- Support for the Emory Eye Center pediatric fellowship, which will train an ophthalmologist who wishes to specialize in pediatric ophthalmology.
- Support to complete the sound system within the Emory Eye Center's Calhoun Auditorium. The space hosts numerous grand rounds, vision research seminars, classes and other special conferences throughout the year.
- Continued support for *Molecular Vision*, the online journal for physicians and research scientists. Emory Eye Center researchers serve as pro-bono editors for this journal, which has gained international respect since it began.

"We are extremely grateful to the Knights Templar of Georgia for the continued funding of programs and projects at the Emory Eye Center," says director Timothy Olsen. "Because of the Knights Templar's generosity, we are better able to fund pilot phase programs as well as to supplement critical portions of other larger scale projects. The focus is always on our mission to help people see as well as they can see."



Maria M. Aaron, MD, associate professor, section of comprehensive ophthalmology, received the prestigious Straatsma Award

for Excellence in Resident Education. The award was dually conferred by the presidents of the American Academy of Ophthalmology (AAO) and the American University Professors of Ophthalmology (AUPO). Aaron also received the 2011 Accreditation Council for Graduate Medical Education's (ACGME) Parker J. Palmer "Courage to Teach" Award, presented nationally to 10 outstanding residency program directors for their commitment to teaching and their innovative and effective teaching methods. They are nominated by faculty members, designated institutional officials and residents. The award is named after Parker J. Palmer, PhD, a noted sociologist and teacher who wrote *The Courage to Teach*, among other books on teaching and vocation.



Jeffrey Boatright, PhD, associate professor, research, was elected president of the Association for Research in Vision and Ophthalmology

(ARVO). ARVO is the premier vision research organization in the United States and comprises more than 12,000 members, including those in foreign countries. He assumed the presidency in May 2011. ARVO encourages and assists research, training, publication and knowledge-sharing in vision and ophthalmology.

Boatright was also named an ARVO Fellow (Silver) for his decades of service to the organization.



Geoffrey Broocker, MD, Walthour-DeLaPerriere Professor of Ophthalmology and chief of service, Grady Memorial Hospital,

served as the 10th Ira Lee Arnold, MD, Distinguished Visiting Professor at the University of Tennessee Hamilton Eye Institute and lectured at the institute's 14th Annual Clinical Update for the Comprehensive Ophthalmologist, a meeting that provides an opportunity for faculty to share the latest discoveries, techniques, and scientific data from their areas of specialty with an audience of local and regional ophthalmologists. Additionally, the Geoff Broocker Fund for Residency Education was established at the Emory Eye Center with a current total of \$250,000 to help residents with increasing financial costs for technological tools and travel to academic conferences, among other things. Broocker is a fellow of the American College of Surgeons.



Lindy DuBois, MMSc, MEd, senior associate faculty member and clinical trial coordinator, is the recipient of the AAO Secretariat

Award. The career recognition award acknowledges special contributions to the academy and to ophthalmology. DuBois was selected for her outstanding contributions as writer and editor for the recently updated 55-minute educational DVD titled "Fundamentals of Ophthalmic Medical Assisting."

Hans Grossniklaus, MD, MBA, F. Phinizy Calhoun Jr. Professor and director of the L.F. Montgomery Eye Pathology Laboratory at Emory Eye



Center, has been appointed to serve on the FDA Panel for Ophthalmic Devices, as well as the FDA Medical Devices Advisory Committee

and FDA Center for Devices and Radiological Health through 2014. He also was tapped as one of the eight 2010-2011 Distinguished Teaching Scholars at Emory University, the only School of Medicine designee. He was named president-elect of the American Association of Ophthalmologic Oncologists and Pathologists and was also named council chair-elect of the American Ophthalmological Society. Additionally, Grossniklaus is the director of the structural/biology module of the departmental core grant, and he evaluates all cases submitted to the Emory Eye Center's pathology laboratory by ophthalmologists from across the Southeast.



Amy Hutchinson, MD, associate professor, section of pediatric ophthalmology and strabismus, served as a visiting professor at Ponce

School of Medicine, Ponce, Puerto Rico. While there, she gave lectures and presented the induction ceremony address for AOA, the honor medical society.



Michael Iuvone, PhD, Sylvia Montag Ferst and Frank W. Ferst Professor of Ophthalmology, and director, research section, taught

neuroscience to the Tibetan monks in Dharamsala, India, last summer as part of the Emory-Tibet Science Initiative (ETSI). He participated in an audience

with His Holiness the Dalai Lama and other activities with Tibetan educators and administrators. He will return this summer to continue that teaching. Iuvone also was appointed to the Emory School of Medicine's Research Advisory Committee and to the Program Advisory Committee of the Neuroscience Institute of Morehouse School of Medicine.



John Kim, MD, assistant professor, section of cornea, external disease, and refractive surgery, received the AAO Achievement Award

for contributions to the academy, presented in October at the annual meeting. To achieve this award, an ophthalmologist must have made contributions to his or her profession through educating others, as well as serving in leadership roles.



Scott Lambert, MD, R. Howard Dobbs Professor of Ophthalmology, section of pediatric ophthalmology and strabismus, received

the AAO Senior Achievement Award, for contributions made to the Academy, its scientific and educational programs and to ophthalmology. It was presented in October at the annual meeting.



Eye Center Director **Timothy W. Olsen, MD**, F. Phinizy Calhoun Sr. Professor of Ophthalmology, section of vitreo-retinal surgery &

disease, was named an ARVO Fellow (Silver) for decades of service to the

organization. Fellows serve as role models and mentors for individuals pursuing careers in vision and ophthalmology research and to further ARVO's vision "to facilitate the advancement of vision research and the prevention and cure of disorders of the visual system worldwide." He was also appointed to The Emory Clinic Board of Directors. Additionally, Olsen presented The Alice McPherson Lecture in Madison, Wisc., and the A. Raymond Pilkerton Lecture in Washington, D.C. He was a visiting professor at the University of Colorado, Columbia University in New York, and at the Montana State Ophthalmologic Society.



J. Bradley Randleman, MD, associate professor, section of cornea, external disease, and refractive surgery, was named editor-in-chief of

the *Journal of Refractive Surgery*. The journal is the official publication of the International Society of Refractive Surgery, a partner of AAO. The journal is a monthly peer-reviewed forum for original research, review, and evaluation of refractive and lens-based surgical procedures. Additionally, he is a member of the International Society of Refractive Surgeons Council and the American Society of Cataract & Refractive Surgery's Cornea Clinical Committee.



Michael Ward, MMSc, instructor, and director, contact lens service, was appointed to the board of directors, Contact Lens

Society of America, and is a member of the Education and Fellow committees. He was also awarded the Beverly Myers

Achievement Award for Outstanding Contributions in Ophthalmic Optics, bestowed upon persons who have made meritorious contributions or who have rendered outstanding services to the field of ophthalmic optics. It was conferred by the National Academy of Opticianry.



Jill Razor Wells, MD, assistant professor, section of comprehensive ophthalmology, has received the Nell W. and William

S. Elkin Cancer Research Fellowship (\$35,000 grant). The funding will be used to image intraocular tumors with an intravenous contrast agent in order to study tumor vasculature in rabbits and humans.



Ted Wojno, MD, James and Shirley Kuse Professor of Ophthalmology and director, section of oculoplastics, orbital and cosmetic

surgery, spoke at a number of academic institutions and organizations around the country. They included a visiting professorship in the department of ophthalmology, Henry Ford Hospital in Detroit; speaker at the Atlanta Oculoplastic Symposium; speaker at both the Tallahassee and Nashville Ophthalmologic societies; and visiting professorship at Vanderbilt University's department of ophthalmology.



Paul Courtright, DrPH and Susan Lewallen, MD

joined Emory Eye Center as visiting scholars in February 2011. The husband and wife team are laying the groundwork for the new Emory Global Vision Initiative to address health care disparity

and access issues, both locally as well as internationally. In Moshi, Tanzania, they established and have served as the co-directors of the Kilimanjaro Centre for Community Ophthalmology (KCCO) for the past 10 years. In that joint role, they have taught, conducted research and directed programs throughout eastern Africa. For their impressive work in community ophthalmology, they jointly received the American Academy of Ophthalmology International Blindness Prevention Award in 2008.

Prior to starting KCCO, Courtright established and directed the BC Centre for Epidemiologic and International Ophthalmology at the University of British Columbia. His research interests are in health systems strengthening for cataract, trachoma, childhood blindness, and other conditions common in developing countries. He is a member of the International Trachoma Initiative's Trachoma Expert Committee and serves as a Consultant to the World Health Organization, among other organizations.

Prior to her time in Tanzania, Lewallen spent seven years in clinical practice in Bellingham, Wash., four in Malawi, and one in Ethiopia, with briefer periods in many other developing countries. Her clinical interests include the eye in

leprosy, ocular manifestations of HIV/AIDS in developing countries and traditional eye medicine. In 1993 she published the first descriptions of previously unreported findings in the ocular fundus in cerebral malaria; these findings have proven to be indispensable in the study of cerebral malaria in African children.



Bhairavi Kharod Dholakia, MD

joins the Eye Center this summer in the cornea, external disease and refractive surgery section.

She received her undergraduate degree at Emory College and her medical degree at the Medical College of Georgia. She then completed a residency in ophthalmology at Wills Eye Institute (Philadelphia), followed by a cornea fellowship at Duke Eye Center. Dholakia is board-certified by the American Board of Ophthalmology and is a member of both the Phi Beta Kappa and Alpha Omega Alpha honor societies. She has spent the past four years at the Harvey and Bernice Jones Eye Institute at the University of Arkansas for Medical Sciences (UAMS). Her special interests include corneal and external disease, corneal transplants, refractive surgery, and cataract surgery.



Sheetal Shah, MD

will join the Eye Center in November and serve in the sections of cornea, external disease, and refractive surgery,

and comprehensive ophthalmology. Her undergraduate degree is from Cornell. She attended medical school and completed her residency in ophthalmology at SUNY Downstate College of Medicine. Shah completed a fellowship in Cornea & Refractive Surgery at New York Presbyterian Hospital, Weil Cornell Medical College. She has conducted research on ocular surface disorders and dry eye syndrome. Her clinical interests include laser vision correction surgery, corneal transplantation, complicated cataract surgery, corneal infectious and inflammatory diseases, and dry eye syndrome. She also holds a strong interest in international health, having spent time with Surgical Eye Expeditions in Rajasthan, India.

Gregor F. Schmid, PhD joined Emory Eye Center's research section and the VAMC in spring. He received his diploma in experimental physics, with specialization in optics, from the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland. He received a doctorate in bioengineering from the University of Pennsylvania. Following a post-doctoral training as a project leader with Charles Riva at the Research Institute in Ophthalmology in Sion, Switzerland, he was a faculty member at the Pennsylvania College of Optometry, followed by work as a senior principal scientist with Ciba Vision Corp. Schmid has research and clinical experience in the control of visually-guided eye growth and refractive development, particularly of myopia, in human subjects and animal models. His background in engineering and instrumentation allows him to custom-build devices or modify existing instruments for specific applications in imaging or diagnostics. At the VAMC, he supports research on retinal mechanisms of refractive development.



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Have a plan.

EVA POWELL learned early the value of work. Growing up with 12 brothers and sisters on a Georgia farm, she became the only member of her family to graduate from college. She has raised four children, worked for 20 years at Georgia's Fort Gordon military base, survived a stroke, and lost her husband to cancer.

Last year she decided to invest the money she's saved over the years in eye research at Emory. At the suggestion of her eye doctor in Augusta, she has made a bequest to the Emory Eye Center.

"I want my money to do something that will help a lot of people," she says.

To learn more about the programs at the Emory Eye Center, call 404.778.4121 or visit www.eyecenter.emory.edu.

Plan for your money to work.



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Emory Eye Center second-year resident hones her skills in a “wet lab,” designed to provide hands-on surgical training. Today, wet labs play an increasingly important role in residency education. Here, second-year resident Sumitra Subramanyam receives critical training from residency program director Paul Pruett.



Emory Eye Center

Uncommon knowledge.

Uncommon sharing.