Our Prescription for Change

“There are many ways of going forward, but only one way of standing still.”
– Franklin Delano Roosevelt

Standing still is never an option for organizations that strive for excellence. In an increasingly competitive and regulated industry such as health care, it’s critical that we continue to deliver high-quality care to an expanding population while increasing operational efficiencies and attracting more financial support for translational research.

The University of Alabama at Birmingham Callahan Eye Hospital and Callahan Eye Hospital Clinics are seeing significant progress in our key areas of focus. Hospital and clinic volume has continued growing, nearly doubling since 2010. Our ambulatory operations launched a new electronic health record system on Jan. 1, 2016, and we developed plans to renovate areas of the second and sixth floors and expand our community locations to accommodate clinic growth.

Thanks to the diligent work of our research scientists, our investigational studies also enjoyed impressive growth during the past five years. In fact, 2015 marked the UAB Department of Ophthalmology’s largest increase in federal research support in its history; National Institutes of Health funding was up 48 percent from 2014. While government dollars are a critical element in our research activities, we salute the individual donors, alumni, and organizations whose generous support helps propel our mission of discovering new ways to treat and cure eye disease.

Moreover, we further refined our research recruitment efforts, pursuing scientists whose abilities coincide with our clinical strengths. This improved alignment ensures that we are targeting diseases with the greatest critical need and creates a pathway for faster translation of research from the bench to the bedside.

In 2015, we unveiled a plan to align and integrate the hospital and clinic operations, which will make the organization more flexible in responding to market changes. This will have a positive impact on funding and support for faculty and staff, as we are merging two high-growth organizations with healthy margins. In short, we are restructuring so that Callahan will not merely survive, but also thrive.

Undertaking these changes will help us stay ahead of certain external trends. We are facing a large population of elderly patients, and with that comes the diseases of aging – including eye conditions such as glaucoma, macular degeneration, and cataracts – in record numbers. To meet this demand, we must develop integrated care plans to allow us to handle tertiary referrals, surgeries, and continued care for high-acuity patients. We also need to grow a regional network to deliver more localized care in a cost- and quality-conscious manner. Our new organizational model provides capitalization for such growth.

Given recent increases in the number of insured, more patients are faced with spending their own money on high-deductible and cost-sharing coverage. An insured consumer will be a more engaged consumer, using the Internet and social media to compare outcomes, physician ratings, and prices. At the same time, the third-party reimbursement system is moving toward paying for value rather than volume. Becoming financially integrated will help us respond appropriately and reduce costs while increasing quality.

The strategies we are implementing will allow us to manage these and other trends. If we do this well, the process will be transparent to patients, and we will be able to sustain our high standard of care – no matter what challenges arise.

Sincerely,

C. Brian Spraberry, MSHA
President & Chief Executive Officer
UAB Callahan Eye Hospital

Christopher A. Girkin, MD, MSPH, FACS
EyeSight Foundation of Alabama Chair,
UAB Department of Ophthalmology
Chief Medical Officer, UAB Callahan Eye Hospital

Table of Contents

HIGHLIGHTS
A Look Inside Callahan .................................................. 2

RESEARCH
Research Growth .......................................................... 5
Building Momentum: NIH Funding Growth ......................... 6
Project MACULA: Eye Site Offers New Insight on Age-Related Macular Degeneration ....................................................... 10
New Research Faculty ................................................... 12
Physician-Scientist Spotlight ........................................... 13

PATIENT CARE
Patient Care Growth ..................................................... 15
New Physician .............................................................. 17
Employee Spotlights ...................................................... 18
ROP Screenings Save Vision in Premature Infants ................. 21
UAB Renews Vision for Renowned Sculptor Frank Fleming .... 22

EDUCATION
Education Growth .......................................................... 25
Training Programs ........................................................ 26
Residents and Fellows ..................................................... 27
Rural Eye Clinic for Children .......................................... 28
Grandmother’s Vision Struggle Motivates Young Woman to Make a Difference .......................................................... 29
Graduating Resident Class and Alumni ............................ 30

GIVING BACK
Best Friends Forever: The Friends of Rudy Organization ........ 33
A Lifetime of Insights Gained From a Few Hours Without Sight .. 40

FACULTY
Faculty Listing ............................................................... 43
Leadership ................................................................. 47
Board of Directors ........................................................ 48

APPENDICES
Publications ................................................................. 49
Grants & Awards .......................................................... 51
Invited Lectures and Presentations .................................... 53

PHILANTHROPY
Colorful Agam Sculpture Returns to Callahan Eye Hospital........ 55
Seeing the Impact ......................................................... 57
Vision for the Future ...................................................... 59
How to Help .................................................................. 60
For more than 50 years, UAB Callahan Eye Hospital and the UAB Department of Ophthalmology have focused on delivering innovative eye care and pioneering breakthroughs in the preservation and restoration of eyesight. We are closely aligned, and together we are committed to making a difference in the eye health of our community, the state, and the country.

One of the few facilities in the world entirely dedicated to advancements in ophthalmology, Callahan is recognized nationally and internationally for outstanding patient care, treatment of eye trauma, and crucial research in eye disease. Along with the UAB Department of Ophthalmology—Alabama’s only accredited ophthalmology training program—we educate the next generation of ophthalmologists and serve both patients and the field of ophthalmology by translating knowledge from the bench to the bedside.

Callahan Eye Hospital is among the busiest eye care centers in the United States and one of only two Level 1 Ocular Trauma Centers with a 24/7 eye emergency department. We perform more than 11,000 surgeries annually in our nine operating suites, while our Lions Eye Clinic provides eye care services to underserved patients.

Callahan Eye Hospital Clinics operates seven locations across the greater Birmingham area, which offer timely access to UAB ophthalmologists and are backed by the same advanced technology and research insight that sustain Callahan’s international reputation. From basic eye exams and corrective prescriptions to cataract surgery and treatment for chronic eye conditions, UAB Callahan Eye Hospital Clinics serve the community with sophisticated, specialized care in a friendly environment.

Our physician faculty members represent every subspecialty of ophthalmology, enabling us to deliver comprehensive care to our patients. Our highly skilled clinicians have pioneered the development of numerous surgical instruments, devices, and procedures that are used by ophthalmologists around the globe. In addition to our physician faculty, the UAB Department of Ophthalmology includes a team of innovative, effective clinical and basic research scientists.

In 2015, Callahan Eye Hospital was recognized with two important national awards from Press Ganey, the national health care consulting and research firm that administers HCAHPS and CAHPS surveys for Callahan and compiles the data gathered. Callahan earned the 2015 Press Ganey Pinnacle of Excellence Award for maintaining consistently high levels of achievement for patient experience. We also received the 2015 Press Ganey Guardian of Excellence Award, which honors Callahan for reaching the 95th percentile in employee engagement.
Invigorated by leadership’s renewed commitment to research, UAB Ophthalmology’s research faculty has enhanced our scientific research abilities in areas that coincide with our clinical strengths. This alignment helps ensure that our research efforts target diseases with the greatest critical need and creates a pathway for quick translation of research from the bench to the bedside.

**Focused Growth**

From 2010 to 2015, UAB Ophthalmology research faculty has grown from 10 scientists to 18 scientists.

We now employ **10 DEDICATED RESEARCHERS** and **8 PHYSICIAN SCIENTISTS**.

**9 Full Professors** – **2 Associate Professors** – **7 Assistant Professors**

Our vibrant and growing research faculty is made up of scientists at all stages of their careers.

**IN 2015, THE DEPARTMENT PURSUED 109 ACTIVE RESEARCH PROTOCOLS.**

**Diverse Ideas**

Our faculty members are exploring new ideas in diverse topics and publishes in all major research areas, including:

- **Glaucoma**
- **Macular Degeneration**
- **Traumatic Brain Injury**
- **Diabetic Retinopathy**
- **Myopia/Presbyopia**
- **Epidemiology**
- **Pediatric Vision Impairment**
- **Ocular Oncology**
- **Retina & Vitreous Surgery**
- **Vision Impairment & Low Vision**

**Cross-Disciplinary Collaboration**

Many of the most common eye diseases are complicated and require cross-disciplinary collaboration. Our researchers collaborate across campus and across the nation.

**70% GROWTH IN FACULTY MEMBERS SINCE 2012**

39 faculty members in 2015
Diligent work by UAB Ophthalmology research faculty led to significant increases in research funding. For 2015, the department achieved a 48% year-over-year increase in research funding from the National Institutes of Health.

“These results are commendable, especially considering the challenges of the federal funding environment,” says Christopher A. Girkin, MD, MSPH, EyeSight Foundation of Alabama Endowed Chair. “The NIH funding rate for unique principle investigators is about 25%, so we are pleased that our faculty was able to achieve an approximately 33% funding rate in 2015.”

The more than $3.6 million in funding received this year from the NIH includes several existing grants, but three new R01 awards contributed greatly to that success. The details of those three awards are highlighted on the following pages.

ROLE OF IOP FLUCTUATION IN DEVELOPMENT AND PROGRESSION OF GLAUCOMA

J. Crawford Downs, PhD, Vice-Chair of Research, was awarded a three-year, $1.23 million grant from the National Eye Institute to explore intraocular pressure fluctuation as it relates to the development and progression of glaucoma, a potentially blinding disease that affects more than 2.2 million Americans.

Downs, a leading ocular biomechanics expert, is director of the UAB Ocular Biomechanics and Biotransport Program, and he studies the eye using principles traditionally associated with mechanical engineering. He is exploring the underlying reasons that make the elderly and people of African descent more likely to develop glaucoma.

“It is well-known that IOP and age are the most consistent independent risk factors for glaucoma,” Downs says. “Despite this, many people who present with these risk factors will not develop glaucoma, while others develop glaucoma or worsen rapidly at clinically measured normal levels of mean IOP. This illustrates the need for further research into the underlying causes of this complex, multifactorial disease.”

Lowering mean IOP is the only clinical treatment that has been shown to slow the progression of glaucoma, but little is known about IOP variations. In earlier research, Downs developed a system to continuously monitor IOP. He demonstrated that IOP does not stay at a consistent level as previously thought but instead continually fluctuates, with some 7,000 large IOP spikes occurring per hour during waking hours.

CHARACTERIZING AMD’S LESIONS THROUGH ADVANCED OPTICAL IMAGING

Yuhua Zhang, PhD, assistant professor, has been awarded a $1.83 million grant from the National Eye Institute to characterize extracellular lesions associated with age-related macular degeneration (AMD), a common, vision-stealing disease.

AMD affects more than 10 million Americans and can lead to severe vision impairment. To date, effective treatments are available only for the late stages of the disease. Despite its prevalence, the factors that lead to
knowledge will allow more targeted interventions are visually impaired,” Dr. DeCarlo says. “This impairment who are at risk for reading issues, we “By identifying characteristics of children with vision impairment who are at risk for reading issues, we need to have a better understanding of why that is true.”

“Reading is obviously an important skill, and failure to achieve literacy has a lifelong negative impact,” Dr. DeCarlo says. “Therefore it is important to understand what contributes to reading readiness. We know that children with vision impairment frequently lag behind their sighted peers with respect to reading, but in order to address that problem we need to have a better understanding of why that is true.”

Children in the study will be evaluated before kindergarten and then twice annually until completing first grade. Areas of investigation include developmental level, visual-motor integration, working memory, and attentional shifting to name a few. The basic reading cluster of the Woodcock-Johnson III test will be used to evaluate results.

“When identifying characteristics of children with vision impairment who are at risk for reading issues, we could more properly allocate the limited resources of teachers trained to work with children who are visually impaired,” Dr. DeCarlo says. “This knowledge will allow more targeted interventions and hopefully help more children succeed.”

development and progression of AMD are not completely clear. Zhang aims to expand scientific understanding of the disease by characterizing subretinal drusenoid deposits (SDD), lesions recently recognized as conferring risk for progression to advanced AMD. Zhang will use an instrument he built to study retina changes related to these lesions at an unprecedented resolution. He seeks to develop imaging-based biomarkers and biometrics for assessing the progression of AMD. New knowledge about the role of SDD could help inform novel approaches to treatment.

Zhang, an optics engineer with expertise in adaptive optics imaging, has been mentored by two eminent scientists in the Department of Ophthalmology: Christine A. Curcio, PhD, and Cynthia Owlesy, PhD. Curcio was the first to identify SDD in human donor tissue, and Zhang’s work builds upon Curcio’s findings.

“These lesions may impact vision by preventing the traffic of key nutrients to and wastes from the light-sensing photoreceptors and by directly exposing these cells to toxic compounds,” Curcio says. “They also may stimulate the ingrowth of abnormal blood vessels and indicate changes in the underlying blood supply to the photoreceptors.”

**IMPROVING MEDICATION ADHERENCE IN AFRICAN-AMERICAN GLAUCOMA PATIENTS**

Researchers at the University of Alabama at Birmingham are hoping a telemedicine-based health promotion intervention can improve medication adherence rates among older African-Americans with glaucoma. Glaucoma is the leading cause of irreversible blindness among African-Americans, who are more than three times more likely to develop glaucoma than are Caucasians.

“Not only are African-Americans at increased risk for glaucoma, studies have shown that they are at increased risk for being nonadherent with medications for glaucoma,” says principal investigator Laura Dreer, PhD, associate professor in the Department of Ophthalmology. “Reasons for nonadherence include age-related memory loss, finances, and barriers to care.”

Unchecked, glaucoma can have a serious negative impact on an individual’s quality of life, independence, and everyday functioning and potentially can lead to blindness. Standard therapy involves the use of pressure-reducing eye drops that can significantly delay or prevent the onset of disease.

Dreer’s study, funded by a five-year, $1.83 million grant from the National Eye Institute, is recruiting 240 African-American adults with glaucoma to determine whether a culturally relevant behavioral health intervention can improve adherence. The multicomponent intervention includes glaucoma education, motivational interviewing, and problem-solving training.

“Part of the objective is to plant a seed and help these individuals reach a better understanding of their glaucoma and realize the importance of taking increased responsibility for their own health behaviors,” Dreer says. “We’ve made great strides in getting people to take charge of their health and wellness in areas such as diabetes, cardiovascular health, and nutrition. We believe glaucoma is deserving of the same effort.”

Study subjects will be divided into two sections. One will be treated with standard glaucoma therapy, including medication, laser treatments, conventional surgery, or any combination of these. The second section will receive standard therapy and the telemedicine-based behavioral health intervention. Participants will have one in-person visit with the research team at the UAB Callahan Eye Hospital, followed by weekly phone interaction for six weeks.

Researchers will employ a self-measuring drug dispensing tool to determine whether patients are adherent or non-adherent with medications. Standard medication therapy usually is 1-2 eye drops, once or twice daily. The tool measures how many drops are dispensed at any one time and records the date and time of dispensation.

Patients at UAB’s glaucoma clinic who enroll in the study will use the device for one month. A failure rate of 75 percent or greater will transfer the subject into the full study. Outcomes will be assessed at three-, seven- and 12-month follow-up visits by determining whether glaucoma medication adherence improves in the group receiving the intervention.

“The practical question to be addressed is whether a culturally relevant health promotion-based intervention improves glaucoma medication adherence among a high-risk segment of the population,” Dreer says. “Information from this project will be particularly useful for African-Americans with glaucoma, their families, and eye care providers.”
project-macula-eye-site-offers-new-insight-on-age-related-macular-degeneration

During the past 14 years, Christine A. Curcio, PhD, a professor in the UAB School of Medicine’s Department of Ophthalmology, has collected images from hundreds of donor eyes in her search for the basic mechanisms underlying age-related macular degeneration (AMD). AMD is the leading cause of severe vision loss and legal blindness in Americans age 60 or older, affecting up to 15 million people in the United States and almost 200 million people worldwide by 2020. As the population ages, those numbers will only increase. AMD occurs when the central portion of the retina, known as the macula, deteriorates. But the exact cause is unknown, and new treatments are desperately needed.

A few years ago, Curcio realized that the images and tissues she had collected—if properly annotated, classified, and made widely available—could prove invaluable to researchers and clinicians alike. It wasn’t as easy as uploading the photos to Facebook. The process took four years, and along the way, Curcio and her team, particularly research associate Jeffrey Messinger, D.C., took four years, and along the way, Curcio and her team, particularly research associate Jeffrey Messinger, D.C., had to develop new naming systems to achieve the level of detail—and precision—that would be necessary to achieve the level of detail—and precision—that would be necessary to understand macular tissue samples. Curcio recognized that high-quality, accurately annotated lab images of eyes with and without AMD could serve as an invaluable roadmap for helping clinicians interpret these images and their tissue samples. In this way, the images could be used to create links in understanding of AMD from genetic variation to cells. The project would not have been possible without several key partners, Curcio points out. “High-quality tissue made discoveries possible at Project MACULA,” she says. “Very few people are blessed with a resource like the Alabama Eye Bank, a highly productive eye bank that is able to obtain lots of tissue rapidly and thus meet our research needs.”

Another invaluable contributor was the UAB Department of Computer and Information Sciences. Associate Professor Kenneth R. Sloan, PhD, his students, and CIS staff provided the expertise and resources to create and host the Project MACULA site, Curcio notes. The project also owes much to private funding partners such as the Birmingham-based International Retinal Research Foundation (IRRF) and the Endowed Support Fund in Retina and Vitreous Diseases, Curcio adds.

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Glaucoma, a leading cause of irreversible blindness among older Americans, is characterized by optic nerve damage, as well as an associated visual field defects. Despite its significance in public safety, the association between glaucomatous visual field loss and motor vehicle collision remains unresolved.

However, a recent retrospective, population-based study by MyYoung Kwon, PhD, Assistant Professor in the UAB Department of Ophthalmology, and colleagues showed that older drivers with glaucoma are at increased risk for involvement in an at-fault motor vehicle collision compared to those without glaucoma.

Published in the journal Ophthalmology, the study demonstrated that of the three measures of visual function – visual acuity, contrast sensitivity, and visual field – visual field impairment was independently associated with an increase in at-fault motor vehicle collision involvement, whereas visual acuity and contrast sensitivity were not. This suggests that visual field loss is the most important visual mechanism underlying increased crash risk in older drivers with glaucoma. Additionally, it was shown that impairment in the left visual field had the greatest relevance to elevated collision rates.

These results underscore why it is important for physicians to discuss driving safety with glaucoma patients, as those with glaucoma had a 65% higher rate of involvement in at-fault motor vehicle collisions. They also demonstrate why an increased emphasis on driving safety is necessary for patients with severe glaucomatous visual field loss.

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By offering the most advanced clinical practice, treatments, and technology, the experts at UAB Callahan Eye Hospital and the Department of Ophthalmology provide the highest quality continuum of vision care services. Treating more than 98,000 ophthalmic patients each year, the hospital operates the only 24-hour, 7 days-per-week eye emergency room in the state and the only Level I Ocular Trauma Center in the region. Callahan offers excellence in eye trauma, retinal, vitreal, cornea, cornea transplant, glaucoma, cataract, laser cataract, oculoplastics, orbital reconstruction, and pediatric eye surgeries.

2015 Patient Age Range

- 65 to 80: 31.85%
- 81 to 100: 9.26%
- 41 to 64: 14.46%
- 6 to 18: 7.25%
- 19 to 40: 37.18%
- 51 to 64: 3.78%
- 0 to 18: 0.27%
J. WAID BLACKSTONE, MD, joined the UAB Department of Ophthalmology as an assistant professor. An alumnus of the UAB Ophthalmology residency program, he has more than 10 years of experience as an eye care specialist.

“We gladly welcome Dr. Blackstone to our department,” says Christopher Girkin, MD, EyeSight Foundation of Alabama Endowed Chair of the UAB Department of Ophthalmology. “He was an outstanding resident and built a thriving practice in the Sylacauga community. By joining the department, Dr. Blackstone will help us continue to advance our clinical and educational missions.”

Dr. Blackstone joined the UAB Callahan Eye Hospital Clinic physician network on April 1, 2015. He sees patients at his Sylacauga and Talladega office locations.

As a comprehensive ophthalmologist, Dr. Blackstone treats a variety of eye conditions ranging from routine eye exams to more complex eye diseases such as glaucoma and diabetic retinopathy. He is a member of the American Academy of Ophthalmology, the American Medical Association, the Alabama Academy of Ophthalmology, and the Medical Association of the state of Alabama.
**Employee Spotlights**

UAB Callahan Eye Hospital and Clinics are proud of our diverse, highly skilled work force. These professionals form a close-knit community dedicated to advancing patient care. The following informal interviews provide some insight, both professional and personal, about a few staff members who exemplify our mission to provide innovative, award-winning eye care and vision restoration.

**Mackenzie Rush**

**Unit:** UAB Callahan Eye Hospital Clinic, Botsford & Children’s Hospital South  
**Job Title:** Lead Office Representative & Surgery Coordinator

What Mackenzie’s colleagues are saying about him: Mackenzie is routinely the first to get here and last to leave. He ensures that everyone has a good patient experience and really takes ownership of his area. Mackenzie is proactive in solving daily issues that arise in the clinic. He’s a wealth of knowledge on all front-end operations and is widely regarded as a resource for everyone. “Mackenzie is an integral part of my team. He does everything he can to help me, often without being asked, and my patients often comment on his efficiency and professionalism. Every day with Mackenzie is a good day!” Virginia Lolley, MD

Tell us about where you are from and your past experience.  
I am from a small town in Lowndes County, Alabama. I came to Birmingham to attend Miles College in 2001. When I was younger I knew that I wanted to have a career in the health care field. After witnessing my father face various health issues and seeing doctors, nurses, and medical assistants give him the best treatment possible and making him comfortable and happy, I knew that I wanted to impact someone’s life in that way as well.

What’s the most rewarding aspect of your work at Callahan Eye Hospital?  
At Callahan, it’s more than a job. It’s family.

Tell us about a personal hero, mentor, or teacher who has inspired you.  
I had a high school teacher name Mrs. Betty Smith who inspired me. She always told me that I have a good heart and I love helping people. She said if I hold on to that I would go a long way in life. That stuck with me.

What’s on your iPod (or other device) right now?  
Sam Smith “Stay With Me”

What are your favorite TV shows, authors, or movies?  
My favorite TV show is “In the Heat of the Night” (yes, I am old school). I love a new show called “Empire.” My favorite author/writer and poet is Maya Angelou.

Favorite sports team:  
Alabama (Roll Tide Roll)

What do you like to do in Birmingham when you are not working?  
I love going fishing, and spending time with my spouse and family.

What Gabe’s colleagues are saying about him: “Gabe is always available and ready to help at any moment. He has mentored and trained PCA staff in his years here at Callahan, imparting little bits of all of his knowledge. His infectious “can-do” attitude is noticed and felt by surgery staff and our patients. On the rare occasion he does decide to take a day off, he is greatly missed. Callahan Eye Hospital has been blessed over the years to have such a dedicated employee.” Brandye Leigh Maddox, RN, Surgical Services Manager

“Gabe is the kind of employee who exemplifies the compassion that we show our patients. He’s also the kind of health care worker who takes pride in everything we do here. Gabe puts total effort into every task, no matter how big or small.” Brian Spraberry, CEO, UAB Callahan Eye Hospital

**Gabriel Agbali**

**Unit:** UAB Callahan Eye Hospital  
**Job Title:** Patient Care Assistant

What Gabriel’s colleagues are saying about him: “Gabriel is always happy and ready to help at any moment. He is a great employee who exemplifies the compassion that we show our patients. He always goes above and beyond to make sure everything is done properly.”

Tell us about where you are from and your past experience.  
I am from Abuja, Nigeria. I came to the United States in March 1978 on a school visa. A very nice lady named Mrs. Drake provided me with a place to live, then she helped me find a job at the Eye Hospital. I first worked in the cafeteria serving patients. When it closed, I took the position as a PCA, and the rest is history.

What’s the most rewarding aspect of your work at Callahan Eye Hospital?  
Working with patients, talking and praying with them to help them feel at ease and to know that everything will be alright. Sometimes ask me my name, and when I tell them it’s Gabriel they say, “Oh, like the angel.” Then they say they know they will be okay! I also love my co-workers. I look forward to coming to work every day here.

What’s on your iPod (or other device) right now?  
Bob Marley and other reggae music

Favorite sports team:  
I know you are expecting me to choose the Alabama Crimson Tide or the Auburn Tigers, but I like soccer.

Do you have a memorable travel experience and/or a favorite vacation destination?  
I went back to Nigeria to visit my mother, Rachael, in Nigeria. I was so happy to see her. To hug her, to talk with her, and to see her face brought joy to my heart. Then to see my brothers and sisters, I tell you I cried. I had not been home in 20 years. I did not get to see my dad before he died, but I did see my mom. This was such a blessing to me.

What do you like to do in Birmingham when you are not working?  
I exercise at the gym. I love walking my dog, Woo Woo. She’s a Great Pyrenees, so I really enjoy the attention we get when we are on our walks. I also like to watch wrestling, and reading my Bible.

What do you like to do in Birmingham when you are not working?  
In the health care profession, there are those moments when it seems like everything’s going south. What gets you through the day when that happens?  
When it seems like everything is going south, I always remember that I am here for a reason. My reason is to provide the best service possible to patients. At the end of the day, I know that I have tried to give 100 percent.

Is there a particular experience, event, or person on the job that stands out as special?  
Our entire clinic staff stands out because it takes a team to make sure the job is done.
What Regina’s colleagues are saying about her:
Regina is extremely versatile and can basically assume any role in the clinic. She’s always willing to help other employees with training or professional development, or even just filling in to make patient phone calls when another clinic is short-handed. Regina is an excellent communicator with faculty members, always making certain that they have all the resources needed to be successful. She’s really the physician’s right hand.

“Regina is one of the reasons the glaucoma service has thrived over the past decade. Her skills as an ophthalmic technician are unsurpassed. She is a great teacher to both patients and staff. She is a natural leader and is trusted by all of our patients and doctors.” Jason Swanner, MD

Tell us about where you are from and your past experience.
I’m from Vestavia Hills, Alabama. I’ve worked as an ophthalmic technician for 19 years, at Callahan for 11 years.

When did you know you wanted to have a career in medicine, and was there any particular event or experience that prompted your interest?
In high school I knew I wanted to be a nurse or medical assistant. I began in nursing at UAB right out of high school. After starting a family, I returned to work in ophthalmology.

What’s the most rewarding aspect of your work at Callahan Eye Hospital?
I know I have an important role in measuring and assessing the eye for a great outcome. That means I get to be an integral part of our work to improve and restore our patients’ vision on a daily basis.

Are you reading, or have you recently read, anything noteworthy?
The Bible

What are your favorite TV shows, authors, or movies?
“Somewhere in Time,” “Serendipity,” “Sense and Sensibility,” “Little Women”

Favorite sports team:
Alabama

What do you like to do in Birmingham when you are not working?
I enjoy discovering new and different restaurants in the area. I like to go antiquing at flea markets and shopping in home furnishings stores.

In the health care profession, there are those moments when it seems like everything’s going south. What gets you through the day when that happens?
Everything I do is done unto the Lord. I take great pride in making a great first and lasting impression. I stay focused on my main priority, which is great patient satisfaction.

Is there a particular experience, event, or person on the job that stands out as special?
I feel very privileged to work for the amazing doctors at UAB Callahan Eye Hospital. Their skill set and surgical outcomes are second to none. I love that I work with the best!

ROP Screenings Save Vision in Premature Infants

Premature babies face an increased risk of visual loss from a condition called retinopathy of prematurity (ROP), but a screening program conducted by UAB Callahan Eye Hospital ophthalmologists is helping cut negative outcomes by half.

Oxygen is toxic to underdeveloped blood vessels in the retina, often causing scar tissue that can shrink, wrinkle, and lead to retinal detachment in severe cases. First diagnosed in 1942, ROP—which usually occurs in both eyes—is among the most common causes of visual loss in childhood and can result in lifelong vision impairment and blindness. It occurs almost exclusively in premature babies under 34 weeks and less than 1,500 grams (about 3.3 pounds). The severity and likelihood of developing ROP increase sharply toward the smaller extremes of age and weight.

Not all premature infants develop ROP, and many who do tend to heal on their own. However, a percentage with milder, stage 1-2 ROP will progress to the crucial stage 3 of the condition—the threshold where visual loss becomes more likely and treatment is recommended. If ROP is left untreated and progresses to stage 4-5, some degree of permanent visual loss or even blindness is typical.

“We can’t tell which babies with milder stages of ROP will go onto the severe stages, so we have to watch all of them to see which are getting better and which are getting worse,” says Martin Cogen, MD, one of several Callahan ophthalmologists who share bedside screening rounds for premature babies under 34 weeks and less than 1,500 grams (about 3.3 pounds). The severity and likelihood of developing ROP increase sharply toward the smaller extremes of age and weight.

Two treatments for ROP are available. Laser therapy began more than a decade ago, and in the past few years physicians have started using a growth factor inhibitor called Avastin to halt the development of the immature retinal blood vessels. "The cutting edge right now is figuring out how to combine Avastin with the laser—the ideal combination, the timing, and in what order they should be done," Dr. Cogen says.

Dr. Cogen and certain colleagues also screen premature infants each week at other area hospitals, including St. Vincent’s Hospital, Brookwood Medical Center, Grandview Medical Center, and Princeton Baptist Medical Center.

According to the National Eye Institute, 14,000 to 16,000 premature infants are affected by ROP each year, and it is severe enough to require medical treatment in roughly 10 percent of cases. Even with increasingly effective treatment, ROP causes blindness in 400-600 infants in the United States annually.

There is very little risk associated with treatment, though peripheral vision is affected in a small number of cases. “No treatment is 100 percent effective, but we have been able to cut the bad outcomes by half,” Dr. Cogen says. “In the past year or so at UAB, not a single baby has ended up with permanent visual loss due to ROP.”

ROP Screenings Save Vision in Premature Infants
Frank Fleming is pleased with his restored vision and view of the world. "It's completely eccentric," Swanner says. "Only Frank, being the artist he is, would respond that way. I put in a toric (specially shaped) lens to correct his astigmatism, and with the cataract surgery this left him with 20-20 vision that was crystal clear. But he told me right away that he liked the way his art looked through the brown tint of the remaining cataract in his left eye. I immediately thought of the Impressionist artist, Claude Monet, who had cataracts."

Swanner is alluding to the change in Monet's work after his vision became impaired during later years. Regarded as the father of Impressionism and most famous for his masterwork Water Lilies, Monet was treated for cataracts by several ophthalmologists, with varying success. At one point in his ongoing treatment, after being fitted with glasses specialized for cataracts, the artist described the new, brighter colors he saw as "terrifying."

Fleming recalls that he remained somewhat concerned about how he would see colors if the procedure to treat the other cataract was as successful as the first. He waited a few weeks before having the left eye treated. Now he admits that he shouldn't have worried.

"After I had the left eye treated, my eyes adjusted," Fleming says. "The brightness sort of calmed down. It was amazing; it did not destroy my interpretations of colors. It was an unbelievable change for the better."

"It does sound dramatic," Swanner says. "But it's important for people suffering from cataracts to know that the treatment is a very common, very safe procedure. It usually takes less than 10 minutes to complete. Ophthalmologists in the state, most of whom receive training at Callahan Eye Hospital, establish practices in communities all over Alabama where they perform this procedure every day."

Swanner performed," he says. "Before that I had about five or six different pair of glasses I swapped back and forth while working with the bronze sculptures. Now I can see every detail without all that trouble. But you know, it's completely eccentric."

Fleming laughs as he relates this story, recognizing the humorous and eccentric quality of such a response to a successful eye surgery. Swanner also sees the peculiar humor in this scenario.

"No one had to tell me the importance of Frank's vision," Swanner says. "I'm a fan of his amazing work. He had pretty severe astigmatism, and very significant brunescent cataracts."

Brunescent cataracts are a condition in which the nuclear or central portions of the lens have become hardened and brownish in color. In advanced stages, the brown pigmentation can make the lens almost opaque. Although such an advanced condition may present complications for surgery, a successful procedure can improve vision from the category of legally blind to normal. Fleming's treatment was a success, although it resulted in an odd twist, according to both doctor and patient.

"After the first cataract was removed in January, the vision in my right eye was instantly clearer and brighter than it ever had been," Fleming says. "I wasn't sure I was ready to see the world in such brightness. I could close the right eye so that through my left eye, which still had a cataract, everything seemed kind of warm and peaceful."

Fleming was diagnosed with cataracts several years ago and at that time it was noted that he probably would require surgery within 3-4 years. During a December 2014 exam, however, it became apparent that the cataracts had quickly become much worse, he says.

"As my cataracts got worse, I had simply adjusted to living with them," Fleming says. "But there was concern that the new severity of the cataracts, especially in my left eye, and we knew I would have to do something soon."

Fleming was referred to Jason Swanner, MD, FACS, at UAB Callahan Eye Hospital. That was a happy set of circumstances for Fleming and Swanner; they are neighbors, and Swanner has collected a few bronze pieces by Fleming.

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UAB Renews Vision for Renowned Sculptor Frank Fleming

Vision is precious to all of us, but for people who are especially oriented toward visual stimulus, or whose livelihood is dependent upon exceptional visual acuity, healthy vision has perhaps a deeper significance. UAB Medicine patient and Birmingham artist Frank Fleming can attest to that.

If the bronze sculptural fountain at Five Points South in Birmingham, Alabama. Bottom: UAB Medicine patient and Birmingham artist Frank Fleming can attest to that.

UAB Renews Vision for Renowned Sculptor Frank Fleming

Top: Frank Fleming’s “The Storyteller” fountain is located in the heart of Five Points South in Birmingham, Alabama. Bottom: UAB Medicine patient and Birmingham artist Frank Fleming was diagnosed with cataracts several years ago and at that time it was noted that he probably would require surgery within 3-4 years. During a December 2014 exam, however, it became apparent that the cataracts had quickly become much worse, he says.

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RESIDENTS PROVIDED COMPREHENSIVE EYE CARE FOR NEARLY 9,000 LOW-INCOME ALABAMIANDS IN 2015.

Career Path for Residents
During the past 10 years our residents have chosen the following specialties:

- **COMPREHENSIVE**: 15
- **RETINA**: 11
- **CORNEA**: 10
- **OCULOPLASTICS**: 6
- **GLAUCOMA**: 6
- **PEDIATRICS**: 5
- **NEURO-OPHTHALMOLOGY**: 2
- **GLOBAL EYE HEALTH**: 1

The ONLY OPHTHALMOLOGY TRAINING PROGRAM IN ALABAMA
Residents Representing

The Alabama Academy of Ophthalmology sponsors a trip each year for two UAB Ophthalmology residents to travel to Washington, D.C., as Advocacy Ambassadors for the group’s Mid-Year Forum, where they interact with lawmakers and are exposed to critical issues facing their chosen profession.

The Mid-Year Forum features several events and activities including Congressional Advocacy Day, the Mid-Year Forum sessions, and the Alabama Academy of Ophthalmology Council meetings. The resident ambassadors attend as part of the Advocacy Ambassador Program, which was created in 2004 to educate residents and fellows early in their careers about the importance of political action and organized involvement in ophthalmology at both the state and national levels.

“While the UAB residents learn about the clinical and surgical aspects of ophthalmology during their training, it is vital that they also learn about the importance of physician advocacy in a rapidly changing health care environment that is highly regulated by government,” says Lindsay Rhodes, MD, assistant professor in UAB Department of Ophthalmology. “By exposing these future ophthalmologists to advocacy early in their careers, we are hoping they become engaged in protecting their patients’ vision beyond the operating room.”

At the Mid-Year Forum, the Advocacy Ambassadors attend sessions about hot topics and issues facing ophthalmology. During Congressional Advocacy Day, the residents are paired with seasoned ophthalmologists for visits with legislators and key staff on Capitol Hill. At the Council Meeting, ambassadors are special guests and learn about the Council’s role as the policy advisory body to the Academy’s Board of Trustees.

In 2015, more than 400 ophthalmologists attended the Mid-Year Forum.

“It is important for physicians to be informed on policy decisions that affect our patients, and meeting with our congressmen provided an opportunity to do just that,” says resident Kevin Bray, MD. “The energy of other young physicians at the meeting was contagious, and it was rewarding to bring some of that energy back to Birmingham.”
EDUCATION

Grandmother’s Vision Struggle Motivates Young Woman to Make a Difference

As a young girl in Afghanistan, Fazila Aseem watched her grandmother struggle, because of vision loss, to independently complete daily tasks. Her grandmother was unable to see well enough to prepare simple meals for herself, and there was nothing Afghan doctors could do to restore her vision.

Many years later a simple cataract surgery significantly improved her grandmother’s vision and quality of life. Aseem wondered how many other older adults might be suffering from a curable condition because of treatment and care deficits.

Aseem’s curiosity sparked both a thirst for knowledge and a desire to improve treatment and care for older adults. This summer, through a fellowship from the American Federation in Aging Research, Aseem will work with researchers in the UAB Department of Ophthalmology to continue her interest in aging and vision research.

“Ophthalmology provides me with the ability to combine my interest in science with my humanitarian vision to make a positive impact in the lives of disadvantaged people, including older adults,” Aseem says. “In the future, I would like to be involved in both clinical practice as well as research so I can not only provide care but also help improve treatment options for vision impairments.”

Aseem, a medical student at Wake Forest University, will work with ophthalmology faculty members Christine A. Curcio, PhD, and Cynthia Owseley, PhD, as part of her summer fellowship.
Congratulations to the 2015 Graduating Resident Class!

Where Are Our Alumni?

Our graduates practice ophthalmology across the nation.

Top 5 states our alumni call home:
- Alabama
- Florida
- Georgia
- South Carolina
- Texas

Our alumni have a presence across 64% of the United States.

Save the Date!

2016 Annual Clinical & Research Symposium
May 13 – 14, 2016 • The Westin Birmingham
Visit uab.edu/acrs for more details and registration!

A special thank you to the two esteemed guest speakers, Daniel F. Martin, MD, and David Kaufman, DO. Their lectures, along with the presentations by UAB Ophthalmology faculty and residents, highlighted the latest treatment options and research in age-related macular degeneration as well as neuro-ophthalmology and uveitis.

Powerful Partnerships

Alumni Challenge Fund Project

The collective generosity of our alumni ensures we are providing the highest quality education for our residents and fellows.

Recently, alumni gifts helped create the Max and Lorayne Cooper Endowed Professorship in Ophthalmology Residency Training, currently held by Russell Read, MD, PhD. “I am honored to be the inaugural holder of this professorship,” Dr. Read says. “This support provides vital resources that invigorate the training program.”

The Alumni Challenge Fund continues to be an integral source of support for our training programs. In the coming years, two key initiatives the Alumni Challenge Fund will support are:

- Visiting Professorship:
  Gaining tacit knowledge is an important part of a robust training experience. With alumni support, we could bring a nationally renowned specialist to spend time with the trainees. This opportunity would add an additional dimension to the outstanding mentoring our program already provides. Trainees would expand their knowledge through lectures and one-on-one interaction with a leader in our field.

- New Technologies and Equipment:
  The rapid pace of advancement in technology and equipment creates a need for alumni support to keep our program competitive and on the cutting edge. With alumni support, we could continue to enhance our surgical training program through updates to our surgical practice lab and provide trainees with the technological resources they need to be successful.

Both of these projects will bolster our program and help recruit residents and fellows. Please consider a gift to the Ophthalmology Alumni Challenge Fund today. Your gift to UAB Ophthalmology can change everything.

To make a gift to the alumni challenge fund, visit uab.edu/giveoph or contact our development office at 205.325.8526.
Through the Friends of Rudy organization, UAB Callahan Eye Hospital and affiliate clinic staff take the gift of vision care to Nicaragua — and get back much more than they give.
Healthy vision is a precious gift. That’s an instantly recognizable fact of life. Less readily recognized, especially in more fortunate societies, is that access to vision care is an equally precious commodity.

However, none of the doctors, technicians, nurses, and support staff who have participated in Friends of Rudy (FOR) Nicaraguan Health will ever take that for granted. By bringing excellent eye care to one of the neediest areas of the world, each of these professionals has gained a global perspective, experiencing firsthand the value and rewards of providing health care for populations in crisis.

FOR Nicaraguan Health, Inc., commonly known as Friends Of Rudy, is a nonprofit organization dedicated to providing medical treatment, resources, and clinic funding to residents of the world’s poorest communities.

FOR was initiated on an ad hoc, informal basis during the early 1990s by Jose Rodolfo (Rudy) Vargas, MD, a native of Nicaragua. Dr. Vargas came to the United States in 1969 for a residency in internal medicine and a fellowship in the subspecialty of endocrinology and metabolism. He now practices at the University of Alabama at Birmingham, Ala. A native of Nicaragua, Dr. Vargas still goes on mission trips with teams of physicians to a small hospital in Granada. The organization officially incorporated as a nonprofit in 2002 and formalized plans to develop a full-time clinic in Nicaragua.

Since then, various physicians and staff at CEH and affiliate clinics have participated annually in this remarkable mission, travelling each February to bring treatment, equipment, and other resources to the Nicaraguan communities most in need. Some of those individuals shared their experiences for this annual report.

Michael A. Callahan, MD

I travelled there on my first mission right after a hurricane almost wiped out the city of Granada. The facilities were almost non-existent. The staff was washing sheets on rocks. Everything was tense because the revolution was still going on. One of the volunteers who worked with us was actually smuggled back to the airport in a white coat so that anyone who saw him would think he was a doctor.

Today, most of the work is done at the clinic outside the hospital there. It’s a one-room clinic where we examine patients, and the room functions as both a pre-op and post-op area. We do about 20 surgeries per day. It’s hot and dry there in February. There may be rodents or insects in the clinic, even birds nesting. We have had water brought in and boiled so we could use it when, for whatever reason, the water supply is cut off. Resources are still limited, even though over the years we have provided plenty of materials and equipment upgrades. FOR has made numerous changes for the better.

We try to get people back to a point where they can at least make a living. Without eyesight, folks in this area face a meager existence; there’s no financial safety net. Worse still, children who have strabismus (crossed eyes) are ostracized in that culture, treated as though they have developmental disabilities, much the way deaf children or kids with disabilities were sometimes regarded in our society many years ago. If they aren’t treated, their vision doesn’t develop properly, which impacts their ability to get an education and greatly compounds the bleak prospects of a meaningful life.

The two main procedures I perform are to remove cataracts and correct strabismus. I call them “Nicaraguan cataracts.” You almost need a hammer and chisel! I think the toughness of the cataract tissue is due to lack of medical care, as well as living an extremely difficult life in a hot, sunny climate that takes a toll on the eyes.

I’ve always had a yearning to go to the places where people needed help. I think many people in my field do. I recall one of our staff coming to me during a recent visit, saying “There’s a lady here who has waited all day to see you.” We continued with some surgeries, then I saw her at the end of the day. This dear woman had been sitting in a chair, outside, in the sun all day. Her sole purpose was to bring me a thank-you note and present it to me in person. The people there are so appreciative. That kind of thing is one of the reasons I got into medicine in the first place.

FOR Nicaraguan Health, Inc., commonly known as Friends Of Rudy, is a nonprofit organization dedicated to providing medical treatment, resources, and clinic funding to residents of the world’s poorest communities.

Katherine Burleson Fuchs, Ophthalmic Technician

My trip to Nicaragua with Dr. John Parker was a crash course, you might say, because I had been working for only a couple of months at that point. I feel like I learned so much because of the sheer number of things we had to do. We screened about 200 patients for cataract surgery and corneal transplant during the first day at the national hospital.

The first year was difficult because we were set up in the courtyard under bright sunlight. The next time we set up in a classroom adjacent to the building. Each day we walked to the hospital we would see children sleeping on top of boxes or digging through trash for food. This is one of the most impoverished areas in the world.

The thing that always amazes and touches me is the warmth and gratitude of that community. After patients undergo a successful surgery, they are so expressive of their gratitude. It’s so humbling. Their families have so little, but they would come back to the hospital to bring us gifts and food. Dr. Parker has invited me to go to Nicaragua every year since then. It’s an opportunity I recommend to anyone who gets the chance.
We learned so many lessons from those who don’t have the blessings we have. For example, instant generosity; I don’t recall walking past a single home where we were not invited to share a meal. And the children; I would love to have brought them all home with me! One of my tasks was to distribute donated toys, and quickly it became apparent that I would barely have enough Beanie Babies, or coloring books and crayons, or other toys on some days.

I became concerned about having an age-appropriate toy for each child, and even though by some miracle we always had just the right number of crayons and coloring books, I worried about it. I was always thinking in terms of “having enough.”

Then one morning I noticed a little girl was tearing out, one by one, all the pages of the coloring book she was given. When I had a moment free I went in the room to see what she was up to. This precious girl was giving one page and a few crayons to other children in the room so that all of them could enjoy the coloring book. I was so touched by her immediate understanding of sharing.
I told my great-granddaughter about that little girl when I returned. Later, just before my next trip to Nicaragua, she came to me to ask if she could share her crayons and coloring books with the children there. I also told both my grandsons, who play baseball, that I saw kids in the villages so poor that they were playing with sticks and rocks to make a game for the group, yet it was their parents who had offered us meals. Both my grandsons wrote stories about that for classroom assignments.

That’s why I feel like I brought as many gifts back with me as I took. So many beautiful lessons that I will never forget, and that continue to touch my family. When I first asked Dr. Callahan what in the world I could offer if I travelled with the FOR group, he said, ‘Just your smile.’ That was a nice thing for him to say, but let me tell you, I returned from Nicaragua with a much bigger smile.

**Richard M. Feist, MD**

I think most of us here have some innate instinct to help others, and I think we get more from the experience than the people we go down there to help. I’ve made 15 or 16 visits. For the first few years, the national eye hospital was closed, and the roads were still in terrible shape from the wars with the Contras and Sandinistas. It was difficult to transport equipment to the hospital, but as things improved we were able to get more resources shipped there and put in place, so now we are able to take cases we could never have treated in the early days. The success of Friends of Rudy has been tremendous. In the time I have been participating, we have gone from not treating retina cases at all to performing retinal surgery.

Teaching is a big part of what we do there. The residents are engaged in every aspect, from examining patients and screening for surgical candidates to performing procedures and surgeries. We work side by side on all the cases we treat.

Nothing makes you more confident as a surgeon than performing procedures in an unfamiliar place, with less equipment, fewer resources, and more difficult cases. It’s how we learn to be comfortable with whatever circumstances fate throws at us. Because we’re blessed with so many resources here at Callahan Eye Hospital, and with so many colleagues who can participate and support us in treating patients, it’s only in places like Nicaragua we can learn to do a lot with a little, under trying circumstances.

We also might discover an area where we excel or gain a new interest. We have at least two residents at UAB who have decided to become retina specialists based on their experience with Friends of Rudy. All around, the experience with FOR makes us better physicians after we get back home.

**Karen Burleson, AVP Human Resources**

Our first trip was to Ecuador in 2011. I’m not a medical staff member. I help patients get to where they need to go, help them get undressed or dressed for surgery, and I assist with the surgery schedule and locate whatever materials the doctors need. I’m just really an extra pair of hands, whether that’s with patient care or organizational tasks.

Of the entire wonderful experience, I think I was most taken with how much gets done under less-than-ideal circumstances. I’m accustomed to a modern healthcare environment with almost unlimited resources, and there are regulatory issues with every treatment, every patient visit, or every procedure. Down there you just roll with it and do what needs to be done.

It’s impressive, not just how our doctors respond so well to that setting, but that they get excellent outcomes for so many patients. You can gain a real appreciation for what we otherwise might take for granted at Callahan, where patients have access to all kinds of support if they are vision-impaired. A serious condition means a lifestyle change, of course, but for our patients in Nicaragua, low vision can be a matter of life or death. If they can’t see to work, they have nothing to fall back on.
Dinner in the Dark gave diners some understanding of what it means to be visually impaired.

A Lifetime of Insights Gained From a Few Hours Without Sight

For 23 Birmingham diners one June evening in 2015, Dinner in the Dark was a real eye-opening experience, especially since the diners were blindfolded. The event gave sighted individuals some understanding of what it means to be visually impaired.

“Dinner in the Dark was designed to raise awareness about what it is like to live — just for a brief moment — with an eye condition that interrupts basic activities such as eating,” says Laura Dreer, PhD, associate professor in the Department of Ophthalmology at the University of Alabama at Birmingham and the event organizer.

The event, held at the popular Highlands neighborhood restaurant Rojo Birmingham, was hosted by UAB Connections, a support group for people with visual impairments. Among the participants were caregivers of members of the group, along with UAB ophthalmologists, residents, and technicians.

Each was blindfolded outside the restaurant and then led inside to a table. They were told to envision their place setting as a clock: knife at 3 o’clock, water glass just above it; salsa at 11 o’clock. Volunteer wait staff at Rojo patiently read dinner choices to the diners, excluding from the menu fajitas, and, by default, any sizzling hot plates.

Spatial relationships were confused. Most diners had no idea where they were in the restaurant, or even which direction they were facing. Many said good communication was a must. Nonverbal cues were not possible, but conversation — and listening — improved. No one wasted time looking at their smartphone. Most of all, diners realized that losing the sense of sight is profoundly challenging.

“I’ve come to appreciate the amount of memory it takes to recall where things are,” says participant Russell Read, MD, a UAB ophthalmology resident. “We get some insight about how much their visual impairment affects their everyday activities through something as simple as sitting down to eat dinner.”

Each table in the Rojo private dining room held two or three blindfolded participants, along with a support group member with a real visual impairment. Volunteers stood by to assist, but were told to let the participants learn for themselves.

“It’s been incredible going from table to table and watching the interactions with the support group members, their family members, the residents, technicians, and the doctors,” Dreer says. “This is an educational experience for all of us that cannot be duplicated in a doctor’s office or at Callahan Eye Hospital.”

It was educational and challenging for sure, but the night was also fun.

“I wanted a salad, but ordered finger food because I was too anxious,” says Torrey DeKeyser, executive director of the EyeSight Foundation of Alabama, which funded the event. “I didn’t dare scoop up salsa with my tortilla chips; I just dipped. A couple of people told me they felt as if they were dropping salsa on themselves,” and I told them, “Well, you actually are. Fortunately, we had bibs.”

Afterward, Dreer proclaimed the first-time event a tremendous success and said UAB Connections has plans to expand the concept.

“We’ll build on this in the future and host other events at other restaurants, or stage different activities,” Dreer says. “We might do things with recreation or leisure that are also fun and challenging. We want to branch out and do this again, for the public, our residents, trainees and technicians, and our support group members and their families.”

— Ryan Burton, MD

It’s figuratively an eye-opening experience,” Read says. “We get so caught up as doctors in the technology and the science of taking care of people that we forget about the human aspect of things. So it’s an incredibly valuable experience, even if it’s just for one night.”

“It gives us a little bit of perspective on what our patients go through and what they encounter in their everyday lives,” says Ryan Burton, MD, a UAB ophthalmology resident. “We get some insight about how much their visual impairment affects their everyday activities through something as simple as sitting down to eat dinner.”

For a clinic that treated more than 4,000 patients last year, any additional space makes a positive impact, according to Dara Cook, an ophthalmology technician for the Lions Eye Clinic.

“This addition gives a total of six lanes, one of which we use for workup,” Cook says. “The new room has already made a huge difference in our ability to handle the flow of patients. During one shift we now have the ability to see as many as 35 or more patients on average.”

Kristen Jijelava, MD, has also seen immediate benefits from the addition of the new lane.

“It has shortened wait times, increased the number of patients we can see in a day, and allowed for more patient-physician interaction,” Jijelava says. “Overall, the clinic runs more smoothly since the addition, and all of us — patients, staff, and physicians — are very grateful.”

The addition of the new lane is one more chapter in a seven-decade history of partnership by which Lions Clubs International Foundation (LCF), the Lions Clubs of Alabama, and Callahan have provided vision care to underserved populations. Through the Lions Club’s efforts to secure funds, and with the dedication of staff and faculty, the Lion’s Eye Clinic expands its capacity to help patients regardless of their socioeconomic status.

Dr. Read sums up the overall response from the participants: “I’m in awe of people who have to deal with vision loss all the time.”
MICHAEL A. ALBERT JR., MD
EDUCATION:
Medical School: West Virginia University School of Medicine
Residency: University of Alabama at Birmingham
Fellowship: Retina Consultants of Alabama
TITLE: Associate Professor
CLINICAL SPECIALTY: Retina and vitreous

ANN MARIE ARCINIEGAS-BERNAL, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: Henry Ford Hospital, Detroit, Mich.
Fellowship: W.K. Kellogg Eye Center, University of Michigan
TITLE: Assistant Professor
CLINICAL SPECIALTY: Pediatrics

RITA ARMITAGE, MD
EDUCATION:
Medical School: University of Kentucky
Residency: University of Alabama at Birmingham
TITLE: Assistant Professor
CLINICAL SPECIALTY: Comprehensive

J. WAID BLACKSTONE, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
TITLE: Assistant Professor
CLINICAL SPECIALTY: Comprehensive

MICHAEL A. CALLAHAN, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of California, San Francisco
Fellowship: Indiana University
TITLE: Professor
CLINICAL SPECIALTY: Comprehensive

MARTIN S. COGEN, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
Fellowship: James Hall Eye Center/Scottish Rite Children’s Hospital
TITLE: Chief of Division of Pediatric Ophthalmology and Strabismus, Professor
CLINICAL SPECIALTY: Pediatric Ophthalmology and Strabismus

R. JEFFREY CRAIN, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
TITLE: Director, Birmingham Veterans Affairs Medical Center Ophthalmology Service; Associate Professor
CLINICAL SPECIALTY: Comprehensive

CHRISTINE A. CURCIO, PHD
EDUCATION:
Doctoral Training: University of Rochester
Postdoctoral Training: Boston University, School of Medicine; University of Washington School of Medicine
TITLE: Professor
RESEARCH INTEREST: Age-related macular degeneration, validation of clinical imaging

DAWN K. DECARLO, OS, MS, MSPH
EDUCATION:
Doctoral Degree: University of Alabama at Birmingham, School of Optometry
Master’s Degree: University of Alabama at Birmingham
Residency: Hines Central Blind Rehabilitation; Chicago West Side Veterans Administration Medical Center
TITLE: Director, UAB Center for Low Vision Rehabilitation; Associate Professor
CLINICAL SPECIALTY: Low vision rehabilitation, pediatric vision impairment

J. CRAWFORD DOWNS, PHD
EDUCATION:
Master’s Degrees: Tulane University
Doctoral Degree: Tulane University
Postdoctoral Fellowship: LSU Eye Center, Louisiana State University
TITLE: Vice Chair of Research; Director, Ocular Biomechanics and Biotransport Program; Professor
RESEARCH INTEREST: Ocular biomechanics, glaucoma

LAURA DREER, PHD
EDUCATION:
Master’s Degree: University of Hartford
Doctoral Degree: Central Michigan University
Postdoctoral Training: Duke University Medical Center; University of Alabama at Birmingham
TITLE: Associate Professor
RESEARCH INTEREST: Adjustment to chronic health conditions; development of health promotion interventions

ANDREW W. EVERETT, MD
EDUCATION:
Medical School: University of South Alabama
Residency: University of Alabama at Birmingham
Fellowship: University of Alabama at Birmingham
TITLE: Assistant Professor
CLINICAL SPECIALTY: Comprehensive

MASSIMO ANTONIO FAZIO, PHD
EDUCATION:
Master’s Degree: University of Calabria, Calabria, Italy
Doctoral Degree: University of Calabria, Calabria, Italy
Postdoctoral Fellowship: Devers Eye Institute, Portland, Oregon
TITLE: Assistant Professor
RESEARCH INTEREST: Ocular biomechanics, glaucoma
Title:

RICHARD M. FEIST, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
Fellowship: University of Illinois, Eye and Ear Infirmary
TITLE: Associate Professor
CLINICAL SPECIALTY: Retina and vitreous

D. WADE JOINER, MD
EDUCATION:
Medical School: University of South Alabama
Residency: University of Alabama at Birmingham
Fellowship: New York Eye and Ear Infirmary
TITLE: Associate Professor
CLINICAL SPECIALTY: Glaucoma

LANNING B. KLINE, MD
EDUCATION:
Medical School: Duke University
Residency: McGill University
Fellowship: Bascom Palmer Eye Institute, University of Miami; Montreal Neurological Institute
TITLE: Professor
CLINICAL SPECIALTY: Neuro-ophthalmology

PRISCILLA FOWLER, MD
EDUCATION:
Medical School: University of South Alabama
Residency: University of Alabama at Birmingham
Fellowship: Wills Eye Institute
TITLE: Director, Cornea Service; Assistant Professor
CLINICAL SPECIALTY: Cornea

PAUL D. GAMLIN, PhD
EDUCATION:
Doctoral Degree: State University of New York Stony Brook
Postdoctoral Training: University of Alabama at Birmingham
TITLE: Professor
RESEARCH INTEREST: Neural control of eye movements

CHRISTOPHER A. GIRKIN, MD, MSPI, FACS
EDUCATION:
Medical School: University of Arkansas
Residency: University of Alabama at Birmingham
Fellowship: Wills Eye Institute, Johns Hopkins University; Shiley Eye Center, University of California, San Diego
TITLE: EyeSight Foundation of Alabama Chair; Chief Medical Officer, UAB Callahan Eye Hospital; Professor
CLINICAL SPECIALTY: Glaucoma
RESEARCH INTEREST: Clinical and basic research into glaucoma, glaucoma disparities

SARAH GORDON, OD
EDUCATION:
Doctoral Degree: University of Alabama at Birmingham
TITLE: Assistant Professor
CLINICAL SPECIALTY: Primary eye care

RAFAEL GRYTZ, PHD
EDUCATION:
Master’s Degree: Ruhr University Bochum, Germany
Doctoral Degree: Ruhr University Bochum, Germany
Postdoctoral Training: Devers Eye Institute, Portland, Oregon
TITLE: Assistant Professor
RESEARCH INTEREST: Growth and remodeling mechanisms in myopia, keratoconus, and glaucoma

MIYOUNG KWON, PHD
EDUCATION:
Doctoral Degree: University of Minnesota
Postdoctoral Training: University of Southern California; Schepens Eye Research Institute, Harvard Medical School
TITLE: Assistant Professor
RESEARCH INTEREST: Low vision and brain research

VIRGINIA Lolley, MD, FACS
EDUCATION:
Medical School: Tulane University School of Medicine
Residency: University of Alabama at Birmingham
Fellowship: Wills Eye Hospital, Philadelphia, Pennsylvania
TITLE: Associate Professor
CLINICAL SPECIALTY: Comprehensive

JOHN D. MASON, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
Fellowship: Wills Eye Hospital
TITLE: Associate Professor
CLINICAL SPECIALTY: Retina and vitreous

BRIAN C. SAMUELS, MD, PHD
EDUCATION:
Medical School: Indiana University
Residency: University of Alabama at Birmingham
Fellowship: Duke University
TITLE: Assistant Professor
CLINICAL SPECIALTY: Glaucoma
RESEARCH INTEREST: Role of the central nervous system in the development and progression of glaucoma

CAROL ROSENSTIEL, OD, FAAO
EDUCATION:
Doctoral Degree: University of Alabama at Birmingham, School of Optometry
TITLE: Director, Contact Lens Service; Associate Professor
CLINICAL SPECIALTY: Primary eye care and contact lens services

CYNTHIA ONSLEY, PHD, MSPI
EDUCATION:
Master’s Degree: University of Alabama at Birmingham
Doctoral Degree: Cornell University
Postdoctoral Training: Northwestern University
TITLE: Nathan E. Miles Chair of Ophthalmology; Director, Clinical Research Unit; Vice Chair of Research Administration; Professor
RESEARCH INTEREST: Aging-related vision impairment and eye disease; vision and driving; improving eye care access and quality for underserved populations

CECIL JAMES MCCOLLUM, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
Fellowship: Duke University
TITLE: Director of Emergency Services, Clinical Assistant Professor
CLINICAL SPECIALTY: Emergency services; cornea

RAFAEL GRYTZ, PHD
EDUCATION:
Medical School: Ruhr University Bochum, Germany
Doctoral Degree: Ruhr University Bochum, Germany
Postdoctoral Training: Devers Eye Institute, Portland, Oregon
TITLE: Assistant Professor
CLINICAL SPECIALTY: Glaucoma
RESEARCH INTEREST: Health services research; novel methods for care delivery, such as telemedicine

CAROL ROSENSTIEL, OD, FAAO
EDUCATION:
Doctoral Degree: University of Alabama at Birmingham, School of Optometry
TITLE: Director, Contact Lens Service; Associate Professor
CLINICAL SPECIALTY: Primary eye care and contact lens services

LINDSAY RHODES, MD
EDUCATION:
Medical School: Northwestern University Feinberg School of Medicine
Residency: University of Alabama at Birmingham
Fellowship: University of Alabama at Birmingham
TITLE: Assistant Professor
CLINICAL SPECIALTY: Glaucoma
RESEARCH INTEREST: Health services research; novel methods for care delivery, such as telemedicine

RUSSELL W. READ, MD, PHD
EDUCATION:
Residency: University of Washington Seattle
Fellowship: Doheny Eye Institute, University of Southern California
TITLE: Max and Laurene Cooper Professor for Ophthalmology Residency Training
CLINICAL SPECIALTY: Uveitis/ocular inflammatory disease
RESEARCH INTEREST: Role of complement in ocular diseases, including uveitis and macular degeneration

CECIL JAMES MCCOLLUM, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
Fellowship: Duke University
TITLE: Director of Emergency Services, Clinical Assistant Professor
CLINICAL SPECIALTY: Emergency services; cornea

WILLIAM E. JOHNSON, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
Fellowship: Duke University
TITLE: Assistant Professor
CLINICAL SPECIALTY: Glaucoma
RESEARCH INTEREST: Role of the central nervous system in the development and progression of glaucoma

HAROLD SKALKA, MD, FACS
EDUCATION:
Medical School: New York University
Residency: New York University
Fellowship: New York University
TITLE: Professor
CLINICAL SPECIALTY: Electroophysiology

JASON C. SWANNER, MD, FACS
EDUCATION:
Medical School: University of South Alabama
College of Medicine
Residency: University of Alabama at Birmingham
Fellowship: Massachusetts Eye and Ear Infirmary, Harvard School of Medicine
TITLE: Professor
CLINICAL SPECIALTY: Glaucoma

CECIL JAMES MCCOLLUM, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: University of Alabama at Birmingham
Fellowship: Duke University
TITLE: Assistant Professor
CLINICAL SPECIALTY: Glaucoma
RESEARCH INTEREST: Role of the central nervous system in the development and progression of glaucoma

MARTIN THOMLEY, MD
EDUCATION:
Medical School: University of Alabama at Birmingham
Residency: Bascom Palmer Eye Institute, University of Miami
Fellowship: Bascom Palmer Eye Institute, University of Miami
TITLE: Associate Professor
CLINICAL SPECIALTY: Retina and vitreous
### Faculty

<table>
<thead>
<tr>
<th>Title</th>
<th>Primary Appointment</th>
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<tbody>
<tr>
<td>Gerald M. Anantharamaiah, PhD</td>
<td>Department of Medicine, Division of Gerontology &amp; Geriatric Medicine</td>
</tr>
<tr>
<td>Karlene K. Ball, PhD</td>
<td>Department of Psychology</td>
</tr>
<tr>
<td>Joel Berry, PhD</td>
<td>UAB School of Optometry</td>
</tr>
<tr>
<td>Virginia Bradley, PhD</td>
<td>Department of Psychology</td>
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<tr>
<td>John Johnstone, PhD</td>
<td>Department of Computer and Information Sciences</td>
</tr>
<tr>
<td>Natalia Kedishvili, PhD</td>
<td>Department of Biochemistry &amp; Molecular Genetics</td>
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<tr>
<td>Gerald McGwin, MS, PhD</td>
<td>Department of Epidemiology</td>
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### Secondary Faculty

<table>
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<tr>
<th>Title</th>
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<tbody>
<tr>
<td>Joanne Murphy-Ullrich, PhD</td>
<td>Department of Pathology and Cell Biology</td>
</tr>
<tr>
<td>Kelly Nichols, OD, MPH, PhD</td>
<td>UAB School of Optometry</td>
</tr>
<tr>
<td>Steven Pittler, PhD</td>
<td>Department of Vision Sciences</td>
</tr>
<tr>
<td>Kenneth R. Sloan, PhD</td>
<td>Department of Computer and Information Sciences</td>
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<tr>
<td>Michael Sloan, PhD</td>
<td>Department of Psychology</td>
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<tr>
<td>Michael D. Twa, PhD</td>
<td>UAB School of Optometry</td>
</tr>
<tr>
<td>Kristina Visscher, PhD</td>
<td>Department of Neurobiology</td>
</tr>
<tr>
<td>Yong Zhou, PhD</td>
<td>Department of Medicine, Division of Pulmonary, Allergy &amp; Critical Care Medicine</td>
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</table>

### Callahan Eye Hospital Medical Staff Physicians

<table>
<thead>
<tr>
<th>Title</th>
<th>Primary Appointment</th>
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<tbody>
<tr>
<td>Martin Cogen, MD</td>
<td>Director of Pediatric Ophthalmology</td>
</tr>
<tr>
<td>Russell W. Read, MD, PhD</td>
<td>Medical Director of Retina Surgery Trainees</td>
</tr>
<tr>
<td>Virginia Lolley, MD, FACS</td>
<td>Director of Medical Student Education</td>
</tr>
</tbody>
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### Staff Leadership

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<th>Title</th>
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<tbody>
<tr>
<td>Myra Aultman, CHA, MNA, MSNA</td>
<td>UAB Callahan Eye Hospital &amp; Clinics</td>
</tr>
<tr>
<td>Reett Grover, MSHA</td>
<td>UAB Callahan Eye Hospital &amp; Clinics</td>
</tr>
<tr>
<td>Karen Burleson, CCP, CBP</td>
<td>AIP Human Resources/Welfare Management</td>
</tr>
<tr>
<td>Cassandra J. Page, PHR</td>
<td>Executive Director of HR</td>
</tr>
<tr>
<td>Lacinda Riesland</td>
<td>Executive Director, IT Infrastructure</td>
</tr>
<tr>
<td>Jason Saddler, CPA</td>
<td>Chief Financial Officer</td>
</tr>
<tr>
<td>Martin Smith, MSHA</td>
<td>UAB Callahan Eye Hospital &amp; Clinics</td>
</tr>
<tr>
<td>Jackie Wood, MD</td>
<td>Senior Director of Development</td>
</tr>
</tbody>
</table>
2015 – 2016 Board of Directors

The UAB Callahan Eye Hospital and Ophthalmology Services Foundation would like to recognize the members of their boards of directors for their dedicated service. Their leadership and guidance have positively impacted the growth and success of both organizations, and we greatly appreciate their invaluable contributions.

CALLAHAN EYE HOSPITAL HEALTH CARE AUTHORITY

JOAN C. RAGSDALE, JD
Chair of the Board
MedManagement, LLC
Founder and Chief Executive Officer

S. DAWN BULGARELLA, CPA, MSHA
UAB Health System and UAB School of Medicine
Chief Financial Officer and Senior Associate Dean for Administration and Finance

MICHAEL CALLAHAN, MD
Callahan Eye Clinic, PC

WILL FERNANY, PHD
UAB Health System
Chief Executive Officer

CHRISTOPHER A. GIRKIN, MD, MSPH, FACS
Eyepath Foundation of Alabama Endowed Chair
UAB Department of Ophthalmology
Chief Medical Officer, UAB Callahan Eye Hospital

REID JONES
UAB Health System
Chief Operating Officer

CHRISTOPHER KELLY, MD
UAB Callahan Eye Hospital
Chief of Staff

UNIVERSITY OF ALABAMA OPHTHALMOLOGY SERVICES FOUNDATION

STEPHEN A. YODER
Chair of the Board
UAB School of Business
Assistant Professor & Executive in Residence

JUDY LONGFELLOW
UAB Department of Ophthalmology
Administration Associate

SPENCER SOUTH
Lakeside Capital Partners
Board Member

C. BRIAN SPRABERRY, MSHA
UAB Callahan Eye Hospital
President & Chief Executive Officer

SHELBY E. GIMMLER, MD
UAB Callahan Eye Hospital
Chief Medical Officer

UAGE-RELATED MACULAR DEGENERATION

Ach T, Totole E, Messinger JD, Zarabina R, Heintzmann R,
Curcio CA. Lipofuscin re-distribution and loss accompanied by
cytoskeletal stress in retinal pigment epithelium of eyes with
age-related macular degeneration. Investigative Ophthalmology

Curcio CA, Bilalatnasimam C, Messinger JD, Yannuzzi LA,
Freund KB. Correlation of type 1 neovascularization associated
with acquired vitelliform lesion in the setting of age related
PMID 26255578.

Litts KM, Messinger JD, Dellarco T, Yannuzzi LA, Freund KB,
Curcio CA. Clinicalophotographic correlation of outer
retinal tubulation in age-related macular degeneration.
JAMA Ophthalmology 2015. PMID 25742505.

Litts KM, Messinger JD, Zhang Y, Freund KB, Curcio CA.
Inner segment remodeling and mitochondrial translocation in
degenerating cones of age-related macular degeneration,
including outer retinal tubulation. Investigative Ophthalmology

Pang C, Messinger JD, Zanzottera EC, Freund KB, Curcio CA.
The Onion Sign in neovascular age-related macular degeneration
corresponds to cholesterol crystals. Ophthalmology. PMID
26298717.

Schall KB, Freund KB, Litts KM, Zhang Y, Messinger JD,
Curcio CA. Outer retinal tubulation in age-related macular
degeneration: optical coherence tomographic findings
consort with histology. Retina 2015. PMID 25635578.

Smith RT, Post R, John R, Alee M, Ablonczy Z, Curcio CA, Ach T,
Sajda P. Simultaneous decomposition of multiple hyperspectral
datasets: fluorophore signal recovery in the retinal pigment

Suzuki, M., Curcio CA, Mullins, RF, Spaide, RF, 2015. Refractile
PMID 25768253.

Zanzottera EC, Messinger JD, Ach T, Smith RT, Curcio CA.
Subducted and Melanotic cells in advanced age-related macular
degeneration are derived from retinal pigment epithelium.
Investigative Ophthalmology and Visual Science 2015. PMID
26024109.

Zanzottera EC, Messinger JD, Ach T, Smith RT, Freund KB,
Curcio CA. The Project MACULA retinal pigment epithelium,
grading system for histology and optical coherence tomography
in age-related macular degeneration. Investigative Ophthalmology

Owsley C, Husisingh C, Clark ME, Jackson GR, McGwin G Jr.
Comparison of visual function in older eyes in the earliest stages
of age-related macular degeneration to those in normal macular

DIABETIC RETINOPATHY

Talley Jr., McCallin G Jr, Ashraf AF, MacLennan PA, Callahan K,
Searecy K, Witherspoon CD, Saaddeine J, Owsley C. Feasibility
and efficacy of diabetic retinopathy screen among youth with
diabetes in a pediatric endocrinology clinic: a cross-sectional
study. Diabetesology and Metabolic Syndrome 2015. PMID
26136849.

EPIDEMIOLOGY

Owsley C, Wood JM, McGwin G Jr. A roadmap for interpreting
the literature on vision and driving. Survey of Ophthalmology 2015.
PMID 25753389.

GENE THERAPY

Yan RT, He L, Zhan W, Wang SZ. Induction of ectopic retina-like
PMID 25835399.

GLAUCOMA

Downs JC. Optic nerve head biomechanics in aging and disease.
Experimental Eye Research 2015. PMID 25198451.

Estrovich IE, Shen C, Chu Y, Downs JC, Gardner S, Strako
M, Mansberger SL. Schiotz tonometry accurately measures
intraocular pressure in Boston Type 1 keratoprosthesis eyes.
Cornea 2015. PMID 25782403.

Lockwood H, Reynaud J, Gardiner SK, Grinn JL, Libertiaux
V, Downs JC, Yang H, Burgoyne CF. Lamina cribrosa
microarchitecture in normal monkey eyes Part 1 - Methods
2015. PMID 25660429.

Murphy-Urch B, McCain S, Hageman G, Moore M, Owsley C,
Girkin CA, Moini C, Scheurer AE, Burgoyne CF. Bruch’s
membrane opening minimum rim width and retinal nerve fiber
layer thickness in a normal white population: A multicenter study.
Ophthalmology 2015. PMID 25741565.

None AS. Gene therapy for retinal diseases: a review.

Chauhan BC, Dartnallhandara VM, Sharpe GP, Demiral S,
Girkin CA, Mardin CY, Scheurer AE, Burgoyne CF. Bruch’s
membrane opening minimum rim width and retinal nerve fiber
layer thickness in a normal white population: A multicenter study.
Ophthalmology 2015. PMID 25742505.

Dreer LE, Owsley C, Campbell L, Gao L, Wood A, Girkin
CA. Feasibility, patient acceptability, and preliminary efficacy
of a culturally informed health promotion program to improve
medication adherence among African Americans: Glaucoma
Management Optimism for African Americans Living with

Girkin CA, Nievergelt GM, Koo JZ, Alfonso AP, MacLennan PA, Callahan K,
Searecy K, Witherspoon CD, Saaddeine J, Owsley C. Feasibility
and efficacy of diabetic retinopathy screen among youth with
diabetes in a pediatric endocrinology clinic: a cross-sectional
study. Diabetesology and Metabolic Syndrome 2015. PMID
26136849.

PHOTOSENSITIZATION

Estrovich IE, Shen C, Chu Y, Downs JC, Gardner S, Strako
M, Mansberger SL. Schiotz tonometry accurately measures
intraocular pressure in Boston Type 1 keratoprosthesis eyes.
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Lockwood H, Reynaud J, Gardiner SK, Grinn JL, Libertiaux
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Murphy-Urch B, McCain S, Hageman G, Moore M, Owsley C,
Girkin CA, Moini C, Scheurer AE, Burgoyne CF. Bruch’s
membrane opening minimum rim width and retinal nerve fiber
layer thickness in a normal white population: A multicenter study.
Ophthalmology 2015. PMID 25741565.

None AS. Gene therapy for retinal diseases: a review.

Chauhan BC, Dartnallhandara VM, Sharpe GP, Demiral S,
Girkin CA, Mardin CY, Scheurer AE, Burgoyne CF. Bruch’s
membrane opening minimum rim width and retinal nerve fiber
layer thickness in a normal white population: A multicenter study.
Ophthalmology 2015. PMID 25742505.
APPENDICES


MYOPIA/PRESBYPIA


NEURO-OPTHALMOLOGY


OCULAR ONCOLOGY


PEDISCULAR ARTERY IMPAIRMENT


RETINA AND VITREOUS


Mason JO III, Patel SA. A case of hypothrombinemia with juvenile macular dystrophy. Retinal Cases and Brief Reports 2015. PMID 25621871.


TRAUMATIC BRAIN INJURY


VISION AND EYE MOVEMENTS


VISION IMPAIRMENT AND LOW VISION


Christine A. Curcio, PhD

Hyperspectral Imaging of the Normal and Age-Related Macular Degeneration; NIH/NEI/NIH; 04/01/2013-12/31/2016

Subcellular basis of PSOCT originally part of “Visualizing Ageing in the Eye: A Personalized Strategy for Preserving Vision in the Ageing Population in Europe”; Medical University of Vienna; 07/18/2015 – 04/18/2017

Dawn K. Decarlo, OD, MS, MSPH

Reading and Pediatric Vision Impairment; EyeSight Foundation of Alabama; 07/01/2010-09/30/2015

Prognostic Indicators for Reading in Pediatric Vision Impairment; Administration for Community Living/Department of Health and Human Services; 09/30/2015 - 09/29/2018

J. Crawford Downs, PhD

Age- and Race-related Differences in Optic Nerve Head Structure and Biomechanics; NEI/NIH/NIHDS (Contact PI); 04/01/2013 – 03/31/2016

Grants & Awards
Grants & Awards

CYNTHIA OWSLY, MD, PhD, MSPH
Aging and ARM: Dark Adaptation Impairment; NIA/NH/NIH; 03/15/2008-02/29/2016
Inflammatory, Cholesterol and Genetic Characteristics in Older Adults in Normal Retinal Health as Potential Biomarkers for the Incident Development of Early Age-Related Maculopathy; Eyelight Foundation of Alabama; 07/01/2010 – 06/30/2016
Improving Access to and Quality of Eye Care in an At-Risk, Underserved Population; CDC/DH/NI; 09/30/2010 – 09/25/2016
Natural History of Dark Adaptation in Participants with Intermediate Age-Related Macular Degeneration; Genentech; 10/19/2012 – 04/18/2016
Older Drivers and Vision Impairment: Naturalistic Driving Studies; NEI/NH/NI; 04/01/2014 – 03/31/2019
LINDSAY RHODES, MD
Patient Preferences Regarding Conventional versus Telemedicine Glaucoma Care; Pilot Program of Center for Translational Research on Aging and Mobility; National Institute on Aging/NH; 09/30/2014 – 05/31/2019
BRIAN C. SAMUELS MD, PhD
Hypothalamic Control of IOP, ICP, and the Translaminar Pressure Gradient; NEI/NH/NIH; 09/30/2013 – 07/31/2017
NASA - Microgravity-Driven Optic Nerve/Sheath Remodeling Simulator; Subcontract: NASA; Georgia Institute of Technology; 01/01/2013 – 08/30/2016
MICHAEL S. VAPHIADES, DO
A Prospective Case-crossover Study to Evaluate the Possible Association Between the Use of PDE5 Inhibitors and the Risk of Acute Nonarteritic Anterior Ischemic Optic Neuropathy (NAION); Elly Lify and Company; 10/22/2013- 10/21/2016
SHU-ZHEN WANG, MD
Generating photoreceptors by reprogramming RPE cells; NEI/NH/NI; 01/01/2011 – 12/31/2015
YUHUA ZHANG, PHD
Near Infrared Detector for Advanced Ophthalmology; NH/NIH/DHHS Radiation Monitoring Devices, Inc; 09/01/2012 – 03/31/2015
In vivo ultra-structure of choroidal nevi; NEI/NH/NIH; 01/01/2015- 12/31/2019

Invited Lectures & Presentations

CYNTHIA OWSLY, MD, PhD, MSPH
Moderator. RPE Cell Biology,” 3rd Biennial MEEI-Schepens Symposium on Age-related Macular Degeneration, October 24, 2014
Co-organizer. “Biogenesis of AMD’s specific lesions: the oil spill in Bruch’s membrane and beyond.” Symposium of the Low Vision Section, American Optometric Academy, November 11, 2014
Invited faculty. (Lecture 1) “Subcellular basis of variation in fundus autofluorescence in age-related macular degeneration.” (Lecture 2) “Imaging the retinal pigment epithelium by optical coherence tomography in age-related macular degeneration.” University of Kentucky Department of Ophthalmology, Translational Medicine Mini-symposium, April 17, 2015
Speaker. “Major druse components are lipids and calcium: histopathology and in culture.” Special Interest Group “Calcium in AMD: a new take on an old story”, Annual meeting of Association for Research in Vision and Ophthalmology, May 6, 2015
Invited faculty. “Histopathologic findings in the evolution of atrophy in AMD.” Classification of Atrophy meeting, Capri, Italy, June 7, 2015
Invited lecturer. “Cholesterol, lipoproteins, and AMD’s specific lesions.” Scientific Input Engagement meeting on Macular Degeneration; Merck Research Laboratories, Newark, NJ, August 13, 2015

CHRISTINE A. CIRCO, PhD
Invited lecturer. “AMD discovery through validated imaging of retinal pigment epithelium.” Medical University of Vienna Department of Ophthalmology and Optometry, September 8, 2015
Invited participant. “Clinicopathologic correlation: borders of atrophy.” Classification of Atrophy meeting, Baden-Baden, Germany, September 10, 2015
Invited lecturer. “Visualizing RPE fate in age-related macular degeneration through histology and optical coherence tomography.” 1st International Symposium of the German Ophthalmological Society (DOG) on Age-related Macular Degeneration, Baden-Baden, Germany, September 11, 2015
Session co-moderator. “Neurobiology of the outer retina.” 1st International Symposium of the German Ophthalmological Society (DOG) on Age-related Macular Degeneration, Baden-Baden, Germany, September 12, 2015
Guest lecturer. “Bioengineering Research Partnership - Hyperspectral Identification of Fundus Fluorophores in Health and Disease.” Corporate Research and Technology; Carl Zeiss AG, Jena, Germany, September 14, 2015
DAWN K. DECARLO, DO, MS, MSPH
J. CRAFORD DOWNS, PHD
Invited lecturer. “Perfusion Pressure: Continuous Telemetry Measurement of Blood Pressure and Bilateral IOP.” Association for Ocular Pharmacology and Therapeutics meeting, Charleston, SC, March 1, 2015
Visiting professor. “Ocular Biomechanics in Aging and Disease.” University of Calabria, Cosenza, Italy, June 17, 2015
LAURA DREER, PHD
MASSIMO ANTONIA FAZIO, PHD
Invited Lecturer. “Scleral Stiffness Changes with Age and Race in Human Eyes.” Association for Ocular Pharmacology and Therapeutics (AOPT), Charleston, SC, February 26, 2015
Colorful Agam Sculpture Back in Place at Callahan

"Complex Vision" has returned to its place on the front of Callahan Eye Hospital at the University of Alabama at Birmingham. The kinetic sculpture, originally installed in 1976, was taken down for restoration in April 2014. The sculpture was created by famed artist Yaacov Agam, often called the father of kinetic art.

"Alston Callahan, the founder of the hospital and the primary force behind acquiring 'Complex Vision,' had a passion for art and a passion to help people with eye disease," says Brian Spraberry, CEO of Callahan Eye Hospital. "He wanted to give them an experience they could appreciate."

Under the guidance of Agam himself, officials at Callahan contracted Art Creations and Renovations, a company specializing in restoring Agam works, to restore the badly weathered and faded sculpture to its original vibrant glory. Crews disassembled the 30x30-foot sculpture and shipped it to the company’s studio in Florida.
“This is here not only for the patients but also for the community. It’s part of the culture of the Eye Hospital. This piece has become synonymous with who we are as a hospital and a part of UAB Medicine.”

– Brian Spraberry
President & CEO, UAB Callahan Eye Hospital

Just shy of a year later, it came back. Reinstallation began March 26, 2015, and the final panel was put in place March 30.

“Complex Vision” comprises 69 aluminum panels, each 9 feet, 9 inches long by 13 inches wide and weighing roughly 50 pounds. The panels were stripped of the old paint and acid-washed. Etching primer and sealers were applied before the panels were repainted with the original colors approved by Agam himself. A clear coat that will protect the sculpture for years was then applied.

On July 1, Yaacov Agam traveled to Birmingham from his home in Paris for the rededication of Complex Vision. Mr. Agam rode a hydraulic lift to the base of the sculpture and used a stencil and four paint colors to sign his name near the spot he originally signed it four decades ago.

“This is here not only for the patients but also for the community,” Spraberry says. “It’s part of the culture of the Eye Hospital. This piece has become synonymous with who we are as a hospital and as part of UAB Medicine.”

Restoring famous sculptures is not normally part of the job description for hospital CEOs, says Spraberry, who worked with Agam and Art Creations and Renovations to create a detailed blueprint of “Complex Vision” to aid in any future restoration.

“So we have the colors, the layout, all of the particulars agreed to by the artist and by the technician,” he says. “We now have a working document so that someone 50 years from now, if they needed to rebuild this, could restore it to the original specifications that the artist had in mind even back to 1976.”

“Complex Vision” has been restored to its original glory, providing both patients and passersby the opportunity to visually interact with the artwork the way it was originally intended in 1976. As one of the few eye hospitals in the country devoted to sight restoration, Callahan provides departing patients an opportunity to see something as beautiful as “Complex Vision”. Its rejuvenation reminds us all that seeing clearly is a precious gift.

SUSTAINING THE VISION

The colorful Agam sculpture back in place on the front of UAB Callahan Eye Hospital.

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SEEING THE IMPACT

Low-Vision Support Fund Advances Patient Care, Research

GORRIE FAMILY GIFT SUPPORTS ALIE B. GORRIE LOW VISION INITIATIVE

For those with low vision, tasks as simple as reading, writing, or driving can be incredibly challenging. Those affected may rely on others for help with daily activities that others take for granted and often struggle to achieve independence.

“One of the real challenges we see is connecting people with information,” says Jim Gorrie, CEO of Birmingham-based construction firm Brasfield & Gorrie.

The Gorrie family has personally experienced the challenges of life with low vision. Alison and Jim Gorrie’s daughter, Alie B. Gorrie, was diagnosed as an infant with optic nerve hypoplasia, a form of vision impairment caused by underdeveloped optic nerves. The condition can cause a variety of vision problems, including a lack of peripheral vision and even blindness. Alie B.’s vision is severely impaired in one eye and measures 20/80 in the other.

During the past 22 years, the Gorries have become dedicated advocates for vision research. Most recently, the family gave $500,000 to the Alie B. Gorrie Low Vision Support Fund in the UAB Department of Ophthalmology.

Jim says the family’s personal journey through diagnosis and treatment was made easier by the doctors at UAB Medicine, especially Alie B.’s doctor of 22 years, Martin Cogen, MD, Chief of the Division of Pediatric Ophthalmology and Strabismus, and Dawn DeCarlo, OD, Director of the UAB Center for Low Vision Rehabilitation, a collaborative effort between UAB’s Department of Ophthalmology and School of Optometry.

“Dr. DeCarlo is a wonderful professional who has spent hundreds of hours with us as we explored how to live with low vision and then later how to help others,” Jim says. “We had significant help to explore any and every possible option for Alie B. However, we realize that many families may not be able to access the system.”

In 2008, Alie B. created Songs for Sight, a series of musical events to raise money, awareness, and understanding for low vision. Her efforts have generated more than $1 million for the UAB Center for Low Vision Rehabilitation, and in 2014, Songs for Sight was awarded the inaugural Hall Thompson Hero for Sight Award by Sight Savers America.
“We were very thankful for our doctors and advocates at UAB who helped us navigate the challenges that exist for people with low vision,” Jim says. “We are very fortunate to have such a comprehensive resource right here in Birmingham. Part of our continued work will be to help develop peer groups and general information to raise awareness of options for families who may not know where to turn.”

Dr. DeCarlo says for children with vision impairment who don’t know others with low vision, simply meeting other kids who have been through some of the same struggles can be incredibly empowering. The Songs for Sight Youth Low Vision Support group is run by the Center for Low Vision Rehabilitation and provides educational, recreational, and peer support opportunities to the families of children with vision impairment. Funding also helps provide orientation and mobility services that assist patients in navigating their environments more independently and safely.

“These services are not covered by insurance, and there is very little availability elsewhere, with long wait times for services,” Dr. DeCarlo says. “The funds also allow financially needy patients to receive devices, even high-tech biopics and electronic magnification, which will enhance the quality of their lives.”

The Low Vision Support Fund also contributes to groundbreaking research. Jim is particularly excited about gene therapy research being conducted at UAB.

“We don’t pretend to understand it, but it is encouraging to hear the optimism that exists at UAB,” Jim says. “UAB is at a very exciting point in its history, and we are pleased to be in a position to make a meaningful gift in an area we are so connected to.”

Jim says he hopes the funding will continue to raise awareness of options for those families that may not know where to turn.

“At the end of the day, we hope that the Low Vision Support Fund will help families get the help they need and deserve,” Jim says. “Through our previous efforts with Songs for Sight, we know the importance of raising awareness, and we also believe that there continues to be a large unmet need in Alabama. We have seen significant progress in this area through UAB and other great support organizations such as Sight Savers, The Lions Club, and Impact Alabama, and we are excited to continue to support these efforts.”

“We are very fortunate to have such a comprehensive resource right here in Birmingham. Part of our continued work will be to help develop peer groups and general information to raise awareness of options for families who may not know where to turn.”

– Jim Gorrie, CEO of Brasfield & Gorrie

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**POWERFUL PARTNERSHIPS**

**Songs for Sight**

Songs for Sight, an organization benefiting low-vision and eye research, hosted an event for children and teens with low vision at Birmingham’s McWane Center on Saturday, Sept. 12. More than 45 families attended the event, which featured structured learning opportunities and a resource fair, an IMAX movie, and access to the McWane Science Center’s adventure exhibits.

Songs for Sight was created to raise awareness and funds for the UAB Center for Low Vision Rehabilitation. The organization was started by Alie B. Gorrie, a patient of the center, and since its inception in 2008 Songs for Sight has raised $1 million. In addition to youth support group activities, Songs for Sight helps the center provide eligible patients with electronic video magnification devices and orientation and mobility services, as well as funding for low-vision research.

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**VISION FOR THE FUTURE**

UAB Ophthalmology has a bright outlook for the future. As proud as we are of our accomplishments thus far, we truly believe the most meaningful advancements are yet to come and within our grasp.

The support of visionary philanthropic partners provides the potential for major breakthroughs in the treatment and care of blinding disease. With your support, we can achieve a brighter, healthier future.
The $1 billion Campaign for UAB is a visionary plan to align our resources with our aspirations and includes significant support for the School of Medicine. While strengthening our position as one of the nation’s most productive and dynamic academic medical centers, the Campaign’s success will change the world through the knowledge we teach, discover, and translate into patient care.

CAMPAIGN GOAL: $1 BILLION

As of October 31, 2015

$636,370,788

$412,390,058*

*Funds contributed by UAB School of Medicine Supporters

HOW TO HELP

Contact us to learn more about where your help is needed most.

JACKIE WOOD, Senior Director of Development
Phone: 205.325.8526  •  Email: jfwood@uab.edu
1720 University Boulevard, Suite 500  •  Birmingham, AL 35233

Ways to Give:

Make a gift online, a simple and secure way to make an immediate impact: www.uabmedicine.org/perspective

Speak with our development office: 205.325.8526

Mail in your gift: 1720 University Blvd., Suite 500  •  Birmingham, AL 35233