OHIO STATE

BUCKEYE OPHTHALMOLOGY

TRANSLATIONAL RESEARCH

BRIDGING THE GAP BETWEEN RESEARCH AND PATIENT CARE

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OHIO STATE BUCKEYE OPHTHALMOLOGY

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"There are many unknowns about the future of healthcare and our profession. One thing is certain; the quality of our endeavors will continue to be of eminent importance to the patients we care for and the individuals we train.

Whether it is direct clinical care, education, or in basic and translational research, our excellent staff, volunteers, faculty, residents, and fellows will allow us to meet our goals despite the many challenges that face us."

- Thomas Mauger, MD
Department Chairman

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Dr. Katz holding the hand of a pediatric Haitian patient, telling her "It's going to be okay."

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CHAIRMAN - THOMAS MAUGER, MD
ADMINISTRATOR - ROBERT LAFOLLETTE, MBA
OUTREACH DIRECTOR - LAURA SLADOJE
PROGRAM COORDINATOR - CHRISTINA STETSON

OPHTHALMOLOGY OUTREACH
PHONE | (614) 293-8760
EMAIL | EYE@OSUMC.EDU

MEDICAL CENTER EXPANSION PROJECT

Artistic rendering of the OSU Medical Center Expansion

EXPANDING ACCESS

One in three of us will get cancer in our lifetime. With the new James Cancer Hospital and Solove Research Institute, part of OSU Medical Center's $1 billion expansion project, more people than ever will have access to some of the world's leading experts in cancer prevention, detection, treatment, and cure. Together, we're creating a cancer-free world.

Caring for our patients and the environment certified under the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ for its use of sustainable and eco-friendly material, technologies and building practices, the new building will use 20 percent less energy than standard buildings.

"The OSU Medical Center expansion is a unique opportunity to improve people's lives," said Dr. Steven Gabbe, CEO of the OSU Medical Center. "Ohio State has the opportunity to do something no other university has done."

Fully equipped rooms will allow patients to receive nearly all of their treatment in the comfort of their own room, rather than visiting multiple locations. To facilitate family support in the healing process, every critical care patient room will have adjoining comfort zones where loved ones can stay, sleep, and shower.

The new Chlois G. Ingram Spirit of Women Park and the Phyllis G. Jones Legacy Park will offer beautiful green spaces where patients, visitors and staff can meet, rest, and reflect. Additionally, roof top terraces on the new building will also be available to patients and visitors.

INTEGRATED RESEARCH

The new facility will be linked to research buildings, allowing investigators to translate their lab work to clinical trials, which may help patients heal more quickly. Every patient floor will also include spaces to support healthcare education, enabling teams of faculty and students to interact in patient care.

The expansion is a concrete example of Ohio State's expansion in the area of Life Sciences. This new space will bring together areas of study and research that may not have collaborated before to find ways to prevent, treat and cure disease.

"We are a large university with a rich diversity of programs, especially in health sciences," said Dr. Gabbe. "This will bring all of that rich diversity in closer collaboration with the Medical Center. We will develop programs of care here that will become the standards for future health care in medical centers around the country and around the world."

EXPANSION IMPACT

The OSU Medical Center expansion will generate 5,000 new construction jobs and an additional 10,000 new full-time jobs upon completion, nearly doubling the Medical Center's economic impact on central Ohio.

"This is precisely the right moment to leverage the strength and momentum of Ohio State's Medical Center for the benefit of Ohio and our patients," said OSU President Dr. E. Gordon Gee. "The new configuration and technologically advanced facilities will ease collaborations among researchers, physicians, and patients, reshaping hands-on care and making possible transformational discoveries, therapies, and treatments."

Stephanie, a Haitian orphan with a large orbital tumor

Stephanie, after having the tumor removed, with Project MediShare's PJ Pitts

INTERNATIONAL MISSIONS: HAITI

Haiti was already the poorest country in the in the western hemisphere, with most of its population living on less than $2 per day. Most citizens did not have access to running water or basic medical care. When the 7.1 magnitude earthquake hit in January of 2010, it left 316,000 dead, 300,000 injured, and over 1,000,000 homeless.

With the large number of fractures, amputations, and other earthquake-related injuries, the immediate need for trauma surgeons and doctors was evident. Most of the major buildings and hospitals were not functioning, but volunteers came from all over the world to treat patients anywhere they could in makeshift hospital tents.

Dr. Steven Katz, a neuro-ophthalmologist from OSU Havener Eye Institute, was at first hesitant to go, not really sure how he could be of assistance.

“I knew a number of people that had gone to Haiti to help out in the relief effort, one of whom was a former residency classmate of mine, Charlotte Agnone. She had been there twice and started to email me photographs of children and young adults with orbital tumors. She wanted me to come back with her to help with the surgery on these cases. They weren't acute injuries, but patients who had been overlooked or considered too difficult for someone to attempt in a less than adequate hospital.”

During that time, Dr. Agnone sent him a photo of Stephanie. Stephanie was an orphaned, 12-year-old Haitian girl with a large orbital tumor behind her left eye. She was very shy and did not interact with other kids. She was afraid to look at anyone because she was worried about what they might think about her. Through an interpreter, Stephanie communicated the difficulties she faced living in an orphanage and that she hoped to get married some day.

Back Row: **Drs. Criden and Katz**
Front Row: **Drs. Grant, Agnone, and Bryan**

Her story struck a chord with Dr. Katz and within the next couple of months, a group from Columbus was formed. The group included Dr. Katz, Dr. Agnone, her husband Brad Bryan, MD (a general surgeon), Ian Grant, MD (an otolaryngologist), Don McNeal, MD (an internist), and Dr. Katz's former neuro-ophthalmology fellow, Marc Criden, MD, now on the faculty of the University of Texas Houston.

They arrived at Port-au-Prince and settled into the new Project MediShare compound. They were immediately struck with the physical difficulties of the extreme humidity, over 100 degree temperatures, and lack of running water. While the hospital was no longer being run out of a tent, it was always short on supplies, pharmaceuticals, and personnel. They lacked many of the instruments that would normally be used for such delicate orbital surgeries.

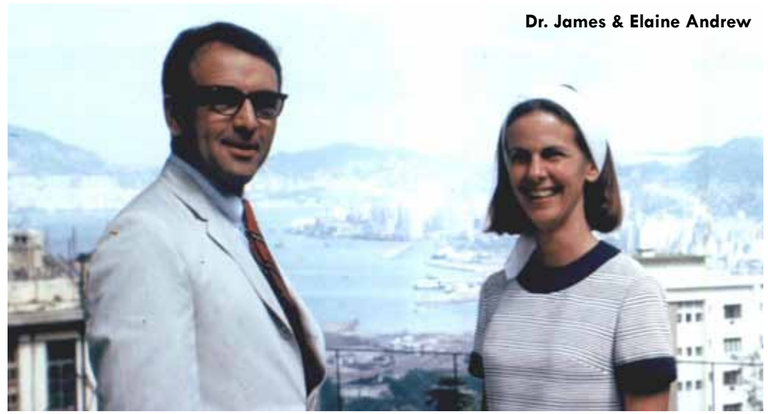
"When you weren't operating, then you were acting as a scrub nurse or helping to clean the operating room between cases or the next case wouldn't happen," said Dr. Katz. "You had to leave your ego at the door. When I was operating, I had multiple surgeons assisting me. When I wasn't operating, I might be fetching blood product or trying to find the right instrument. All of us had to do whatever was needed."

When they were not performing surgery or seeing eye patients, they were assisting in the general medicine clinic. The group treated many patients, but Stephanie was the one patient Dr. Katz went specifically to see. They were able to successfully remove her tumor and her vision and eye movements improved dramatically. Since returning home, Dr. Katz received photographs of her laughing, smiling, and playing with the other kids in the orphanage.

"We were very impressed with the beauty and strength of the Haitian people, as well as the incredible sacrifices of many of the volunteers," said Dr. Katz. "The small contribution that we made in four days was overshadowed by the volunteers who had been there for up to eight months."

Dr. Katz has promised Stephanie to return to Haiti. He hopes to take a few ophthalmology residents and fellows with him to perform the additional eye muscle surgery she needs as well as to assist in the care of other patients.

For more info on supporting resident international missions call Barbara at (614) 293-8760 or visit eye.osu.edu/about/missions.



Dr. James & Elaine Andrew

ANDREW SURGICAL SKILLS LAB

FAMILY CREATES A LASTING LEGACY

We are proud to announce the dedication of the James M. Andrew, MD Resident Surgical Skills Lab. This is the first space in the new Eye and Ear Institute to be named.

Dr. Andrew was an OSU Ophthalmology community faculty member and benefactor for over 30 years. His family is proud to support the naming including his son Mark, who lives in Granville, son Blair, who lives in Baltimore, Maryland, son Craig and daughter Peggy Bellows, who both live in Columbus.

Dr. Andrew graduated from Dartmouth and received his medical degree at the Long Island School of Medicine. He completed his residency at Kresge Eye Institute in Detroit and afterwards, was stationed at Wright-Patterson Air Force Base.

In 1951, he arrived in Columbus and took over a practice on State Street. He had many partners over the years including OSU alumni Bob O’Dair, Sandy Farber, and Jack Dingle.

“Jim was an all-round great ophthalmologist,” said Dr. Dingle. “We practiced together for 12 years. He was a very energetic, dynamic person who was just a lot of fun to be around.”

Dr. Andrew trained many ophthalmology residents throughout his career. Most Monday nights, he would open his home to the ophthalmology residents so they could watch slide shows and 16mm film of surgeries and eyes disorders.

“He had a passion for education and really enjoyed training residents,” said Peggy.

In the early 50s, when he began his practice, cataract surgery patients would have the natural lens inside their eye removed after which they would have to wear very thick glasses. Dr. Andrew was one of the first ophthalmologists in the community to use artificial lens implants after cataract removal.

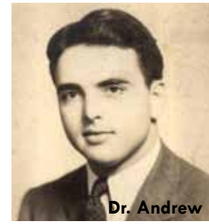
“In those days, cataract patients had to be hospitalized and Dad always sent them a get-well bouquet,” said Peggy. “I remember that the little old ladies would get so excited when the flowers would come because now they could see them.”

In the 1960s, Dr. Andrew joined a group of ophthalmologists who constructed a building on East Town Street that was conducive to practicing ophthalmology.

At that time, laser treatment for diabetic retinopathy was in its infancy and Dr. Andrew had a patient, the wife of a Nationwide Insurance executive, who was losing her sight due to diabetes. Dr. Christian Zweng of Stanford University, a classmate and friend of Dr. Andrew, was a pioneer for laser treatment for diabetes and was using a new technique utilizing an Argon laser. He invited Dr. Andrew and Dr. Frederick Davidorf, an OSU retina specialist, to observe the treatment firsthand.

A trip to California was no easy task in 1970, but Dr. Andrew, Dr. Davidorf, the patient, and her husband made the 2500 mile trip in a prop plane. They observed the new procedure and brought knowledge of the technique back to Ohio. No one in Ohio had an Argon laser because of the cost, but Dr. Andrew and Dr. Davidorf were able to convince the patient's husband to donate the first argon laser in Ohio to OSU.

Dr. Andrew never got the chance to retire. His life was cut short at age 66. In 1987, while making an ophthalmic presentation in South Africa, he experienced chest pains and had to be hospitalized. During his hospital stay, they found that he had pericardial fluid around his heart which they later analyzed and found cancer cells. He lived ten more months, but finally succumbed to his illness in July of 1988.



Dr. Andrew

“I remember Jim as a long-time ophthalmologist, resident teacher, and outdoorsman,” said Dr. Davidorf, a former student and colleague. “But most of all, I remember him as an innovative surgeon which makes naming the surgical skills lab in his honor so appropriate.”

WILL KUHLMAN JOINS DEVELOPMENT TEAM

Will with OSU donor Thom Robinson

Join us in welcoming Will Kuhlman, our new Development Officer. Will hails from Washington State where he graduated with a Bachelor of Arts Degree from Eastern Washington University in Communications & Journalism.

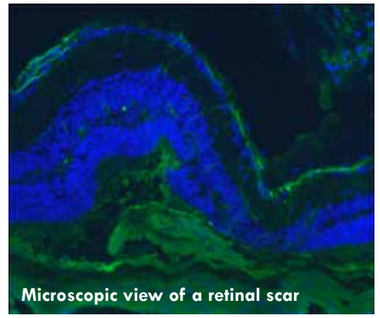
Over the next two decades he built a solid reputation in fundraising working for Washington State University, University of Idaho, Washington's Pullman Memorial Hospital Foundation, and Anchorage, Alaska's Providence Health System.

Now, Will is happy to call the Buckeye State home and he is looking forward to settling in, watching some good football, and fundraising to ensure a brighter future in ophthalmic care.

"The Havener Institute is known for its superior residency, treatment, and research programs," said Will. "Philanthropy will play an increasingly important role in maintaining and enhancing these excellencies. I am pleased and honored to have the opportunity to help advance the Department any way that I can."

Dr. Christoforidis performing cataract surgery on an animal subject with Dr. Cedric Pratt, a retina fellow

Dr. Cebulla overseeing a research assistant



Microscopic view of a retinal scar

Dr. Christoforidis preparing a patient for an anti-VEGF injection

TRANSLATIONAL RESEARCH

CONDUCTING RESEARCH THAT DIRECTLY BENEFITS THE PATIENTS THAT WE SEE

The image of research as "an ivory tower housing statistics and microscopes," is a popular one. While basic research has traditionally been far removed from patient clinics, translational research is bridging the gap getting breakthrough discoveries to patients faster that ever.

Translational Research is a new initiative of the National Institutes of Health (NIH). It seeks to "translate" basic research discoveries into patient care by encouraging collaborations between basic scientists and clinicians. At the Havener Eye Institute, our physicians are taking it one step further by identifying patient care problems and initiating research themselves based on real-world problems.

MAKING A DIFFERENCE

Retinal detachment (a condition where the light sensitive tissue inside the eye becomes separated from the back of the eye) can be a potentially blinding condition. The worst outcomes are in those patients who develop scar tissue in the retina, called proliferative vitreoretinopathy (PVR).

"My research is focused on clinical problems," said OSU's Colleen Cebulla, MD, PhD. "As a retina surgeon, I see patients that are affected by retinal detachments. We want to help them regain their vision either by promoting regeneration of damaged retinal tissue or eliminating scar tissue formation."

Retinal damage and scarring problem are not isolated to retinal detachment patients. Patients with macular degeneration, diabetes, ocular trauma, some infections, and other retinal conditions can also have scarring. Depending on where the scars form they can interfere with vision. By understanding how scarring develops, Dr. Cebulla hopes to be able to inhibit it in critical vision areas.

While there are many theories on PVR prevention, in practice the theories have not really held up. Not knowing the critical proteins that promote the scarring process and how to target them is a part of the problem. Dr. Cebulla believes that if we knew the target proteins, we could develop better medication to prevent or reduce the scarring as well as try to promote healing of damaged retinal tissue.

Her first step was to compare the proteins that are increased or involved in a PVR retina with a normal retina in animal models.

"I did what's called iTRAQ labeling of the proteins," explained Dr. Cebulla. "A tag is added to a protein so the mass spectrometer machine can recognize it. This can tell me if a protein has increased or decreased in a PVR retina sample compared to a normal retina sample. I found 567 extra proteins and am very interested in which are the most important targets to study and trying to develop therapeutics."

Once the targets are identified in the animal model, Dr. Cebulla will conduct similar studies with human PVR retina. This will help identify the target proteins involved in scarring and regeneration. Medication that inhibits these proteins can then be tested and with success will lead to clinical trials.

"I see problems every day that affect people," said Dr. Cebulla. "It makes me want to go to the lab and find new treatments that will help my patients and patients everywhere."

ASKING QUESTIONS

Anti-Vascular Endothelial Growth Factor (anti-VEGF) medications such as Avastin® and Lucentis® inhibit the growth of new blood vessels. This is important for patients with several common retina conditions, but might have adverse effects on other parts of the body that are trying to heal.

"It's a basic question. We give our patients anti-VEGF medication in the eye," said John Christoforidis, MD. "How do we know that it stays in the eye?"

Dr. Christoforidis decided to do more than ask the pharmacokinetic (the study of what happens to a drug once it is administered) question. He met with other retina specialists to discuss strategies for tracking the dispersion of anti-VEGF medication once injected.

Dr. Christoforidis then consulted his brother, a radiologist, to discussed gadolinium, a dye used in imaging. He learned that gadolinium is not very useful for longterm imaging because after a few days it blends in with the surrounding tissue. Radiolabeling, a process using radioactive isotopes (a decaying chemical element that is easy to track) as tracers would be better. Rather than contacting a research scientist, Dr. Christoforidis took matters into his own hands.

During his first study into radiolabeling, he found that while the majority of the anti-VEGF medication does indeed stay within the eye, a small amount does disperse through the body.

So, is that small amount enough to inhibit wound healing? This question prompted an additional research project into what effect the small amount of anti-VEGF would have. Dr. Christoforidis found that even the small amount that enters the bloodstream is statistically significant in inhibiting wound healing.

"This result can be instantly translated to the clinic," said Dr. Christoforidis. "If I have a patient in the clinic that is considering surgery or has an open wound, I now know to suspend the anti-VEGF medication and consider alternative treatments."

A secondary finding of his radiolabeling project was that Dr. Christoforidis obtained comparable results much faster than other more extensive, long-term pharmacokinetic studies. Also, he was also able to use a single animal subject multiple times, while the larger studies used many more animals to get the same results. This discovery is exciting in itself because it establishes a better method for tracking the pharmacokinetics of medications.

"We'll have a better understanding of where medication is going," said Dr. Christoforidis, "and how your body reacts to it without waiting for basic research to work its way through the entire system. That's the beauty of conducting translational research at The Ohio State University."

DISCOVERIES INTO TREATMENT

With the immense research resources available at Ohio State and the willingness for collaboration between departments, clinical questions can be answered in the lab and start benefiting our patients in the clinic faster than ever before.

"We take questions from the clinic to the lab and bring the answers back to the clinic," said Dr. Christoforidis. "We do it for the patients that we see every day."

"There is something to be said for the thrill of discovery," said Dr. Cebulla, "It's always kind of exciting, like a puzzle that you work out. But, what really motivates me most, is the hope that a discovery we make today will be able to really help our patients."

To learn how to support these important translational research projects, contact Barbara Landolfi at (614) 293-8760.

Betsy Kent having her blood pressure monitored for a clinical trial

WHY CLINICAL TRIALS?

It has been almost a year since Betsy Kent was diagnosed with wet age-related macular degeneration (AMD). She had been writing an autobiography when she noticed that her vision was "going bad". The result of abnormal blood vessels growing and leaking in the back of the eye, wet AMD can result in permanent blindness. Something had to be done.

For treatment, Betsy was referred to retinal specialist John Christoforidis, MD. He told her about a new clinical trial called HARBOR for patients with wet AMD. Clinical trials study the safety and effectiveness of medications or therapies on a chosen set of patients before it is offered to the general public. The information collected helps improve medical care, as well as our understanding of diseases.

Typically, wet AMD is treated with monthly injections of anti-VEGF (Vascular Endothelial Growth Factor) medication which inhibits the growth of abnormal blood vessels in the back of the eye. The HARBOR clinical trial studies different concentrations (0.5mg - 2.0mg) of anti-VEGF injections. One of the benefits participating is that every HARBOR patient gets the "gold standard" medication, some just get a higher concentration of it.

Some patients are hesitant to participate in clinical trials because of a common misconception that participants are merely “guinea pigs”, but not Betsy.

“I was never really scared,” said Betsy. “There was never a question of not participating.”

During a clinical trial the patient’s health is always a first priority. Participants are monitored more, not less, than normal patients and often have additional testing that exceeds the normal standard of care. When surveyed, most study patients report good to excellent care and remark that they were treated with dignity and respect.

“The care is way beyond my expectations, way beyond,” said Betsy. “I’ve never had a problem, either before during or after. I feel privileged.”

Study participants often have the advantage of the latest innovations in care, some receive the study medication or procedures free of charge, and some are even compensated for their time. In addition, they are helping achieve breakthroughs in care that would not be possible any other way.

“The conclusions that we make from clinical trials go such a long way towards helping thousands of patients who have the same condition as our participants," said Dr. Cebulla. "And, clinical trials in the United States are so well done that the implications affect patient care worldwide.”

Not every patient gets the opportunity to affect so many lives, but Betsy Kent feels like she’s doing just that. By joining a clinical trial, she’s found a way to make a lasting difference in the lives of others. And if anyone asked her if they should join a research clinical trial?

“I’d say, ‘You are the luckiest person in the world,’” said Betsy. “‘Go for it.’ I really would.”

MAKE A DIFFERENCE

JOIN A CLINICAL TRIAL

WET AMD PATIENTS

Are you receiving monthly injections for wet AMD? If you are, you could help discover a way to require fewer injections by using alternative eye drops.

CATARACT PATIENTS

Are you concerned about post-surgical inflammation? Help us evaluate a new eye drop that may reduce ocular swelling after cataract surgery.

KERATOCONUS PATIENTS

Do you have keratoconus or corneal thinning after laser vision correction surgery? Vitamin B2 eye drops and exposure to UV light may strengthen the front surface of the eye (cornea) and improve visual acuity.

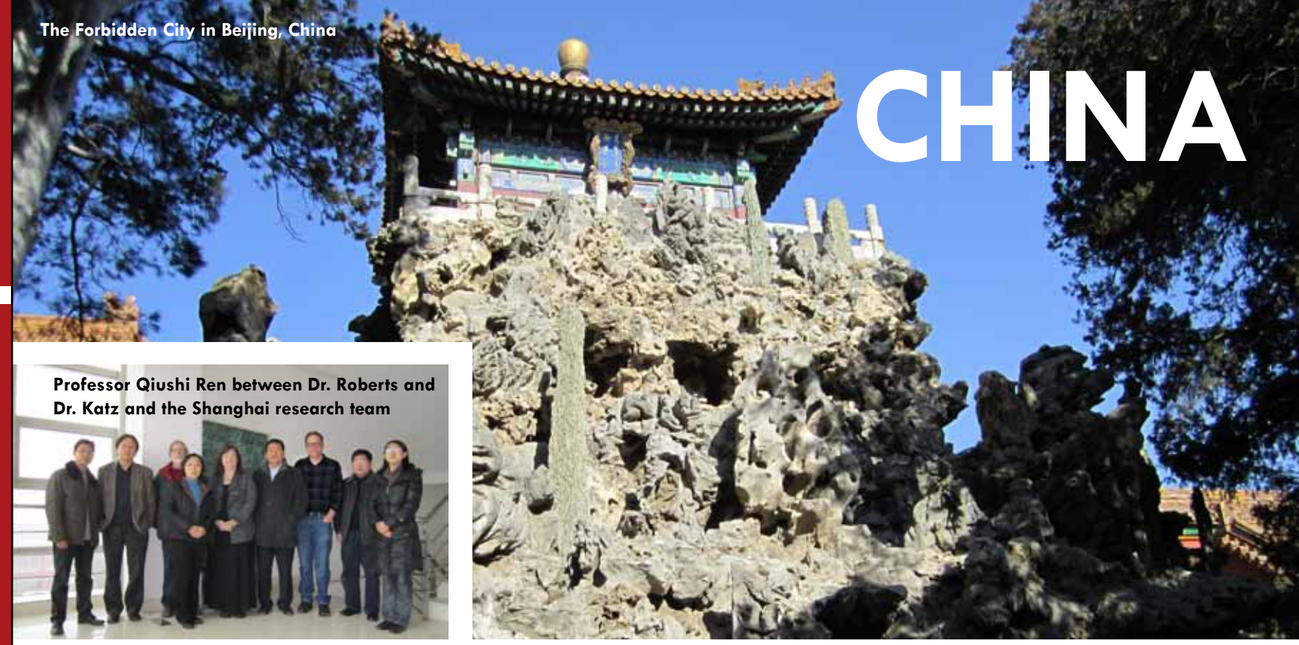
SEVERE HEADACHE PATIENTS

Do you often have severe headaches accompanied with vision changes, double vision, or a “whooshing” sound? These may be signs of idiopathic intracranial hypertension (or pseudotumor cerebri). Help us evaluate the current treatment for newly diagnosed patients with this condition.

SOME STUDIES OFFER:

- Free Medication
- Free Office Visits
- Free Dietary Counseling
- Time Compensation

CONTACT THE CLINICAL TRIALS OFFICE AT (614) 293-5287



The Forbidden City in Beijing, China

CHINA

Professor Qiushi Ren between Dr. Roberts and Dr. Katz and the Shanghai research team

Dr. Katz performing optic nerve surgery on an animal subject

Vision is a complex and fragile process. Light enters through the front of the eye and is precisely focused onto the retina, the back, inside layer of the eye. The retina translates it into electrical signals so it can travel through the optic nerve to the brain. If any of these parts are damaged, your vision could be severely affected. What would you do then?

Artificial eyesight sounds like something straight out of the movies, but for people who have lost their sight it is an idea that brings hope. OSU ophthalmologists are collaborating with scientists on the other side of the globe to restore vision loss in their patients.

Qiushi Ren, PhD the Chairman of Biomedical Engineering at Peking University in Beijing is pioneering an artificial vision initiative known as the China Eye Project, which uses a direct optic nerve stimulation device. The device is a tiny electrode which translates images from a remote camera into electrical signals which travel through living fibers of the optic nerve to the brain. While it does not bring the vision back to normal, it can provide some level of visual perception. An optic nerve stimulation device bypasses the entire eye which makes it a good solution for ocular trauma patients.

“The problem is,” said OSU researcher Dr. Cynthia Roberts, “most Chinese surgeons do not actually operate on the optic nerve. It is sort of a forbidden area for them.”

Because of this social stigma, Professor Ren approached Dr. Roberts and Dr. Steven Katz, an OSU neuro-ophthalmologist, to discuss an international collaboration for the China Eye Project. His interest stemmed from Dr. Roberts' expertise in biomedical engineering and the large volume of optic nerve surgeries that Dr. Katz has performed.

“I understood anatomically what he wanted,” said Dr. Katz. “I could also explain why some of the things they previously tried weren’t working and what I thought they should do to be successful.”

Dr. Katz and Dr. Roberts traveled to China in January and gave presentations to the Department of Biomedical Engineering at Peking University in Beijing and the Department of Ophthalmology at the People’s Number One Hospital in Shanghai.

Dr. Katz spent time in the lab trying to demonstrate a minimally invasive approach to the optic nerve for the China Eye Project. This enabled him to demonstrate how to expose the optic nerve so the device could be attached without having to go through bone.

COLLABORATIVE STUDY PROJECT

“It was difficult to communicate while engaged in a delicate surgical procedure,” said Dr. Katz. “They were very gracious and everywhere we went there was someone helping us communicate or someone who spoke English."

Once he had determined the best surgical method, Dr. Katz was able to perform live surgery on an animal model to expose the optic nerve and train local surgeons who were observing the procedure. Photographs were then taken of the microelectrode array sitting on the optic nerve to serve as a size reference.

“The key issues are what kind of exposure we can get to the optic nerve,” said Dr. Katz. “How do we fabricate the device so it can be easily implanted, and how do we attach it to minimize movement.”

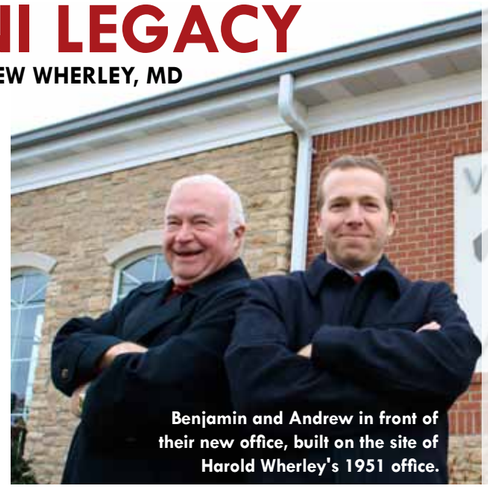
In the initial phase, researchers are using a penetrating electrode. Future plans include the use of an electromagnetic field that can stimulate the individual axons in the optic nerve. Dr. Katz is currently developing new surgical instruments that are smaller and more delicate for the purpose of this procedure. Two sets of instruments will be manufactured, one for Columbus and one for Shanghai. Another trip to China is planned for late June, where the first device will be implanted in an animal subject. Ultimately, Dr. Katz will use the successful animal trials to seek approval for implanting the device into humans. Once approved, he will perform the human studies at Ohio State.

OSU ALUMNI LEGACY

BENJAMIN WHERLEY, MD & ANDREW WHERLEY, MD

When Andrew Wherley, MD graduated from the OSU ophthalmology residency program in 1998, he knew that he had some large shoes to fill. His father Benjamin, another OSU ophthalmology alumni, and his grandfather Harold, an Eye, Ear, Nose, and Throat (EENT) specialist, were both legends in the small town of Dover, Ohio where he grew up. Thankfully, his training at OSU had readied him for the challenge.

"I feel the training I received at OSU was excellent and prepared me well for my practice, said Andrew. "I had, and continue to have, the utmost respect for the attending physicians who gave of their time to train me and my fellow residents."



Benjamin and Andrew in front of their new office, built on the site of Harold Wherley's 1951 office.

"I always appreciated the importance of tradition and legacy that one passes to the next generation. When I was in training, I would walk down the hallway and look at my father's picture hanging on the wall. It was always a special feeling to have that connection with the past and with some of the finest physicians in ophthalmology."

Andrew Wherley, MD

Harold Wherley, MD was trained in Buffalo, NY, back before ophthalmology and otolaryngology were separate specialties. When he completed his EENT training he returned to his hometown of Coshocton, Ohio to start his practice. Two years later, he was called to duty for WW2 and spent some time in England at an Allied military base. With the war at an end, he returned Ohio. In 1951, he built the office building where he, his son, and then his grandson would practice ophthalmology. The building was in continuous use until 2010 when a new facility was constructed in its place.

Benjamin Wherley, MD studied at Heidelberg University in Tiffin, OH and completed his medical degree at Buffalo State University of New York. He then came to Ohio State for his ophthalmology residency.

"My training at Ohio State was absolutely wonderful," said Benjamin. "I was very fortunate to get a residency position there."

Benjamin graduated from the OSU Ophthalmology Residency program in 1968, and like his father before him, served in the Army for several years before joining his father's practice in Dover. He took over the ophthalmology side of the practice so Dr. Harold Wherley could focus on ENT.

Between 1970 and 1980, Dr. Benjamin Wherley was the only ophthalmologist for Tuscarawas County with a population of 90,000. He was very available to his patients. Before OSHA had a lot of safety regulations, patients would call routinely with foreign bodies in their eyes. He would get a call from a nearby factory and would put clothes on over his pajamas and meet them at his front door.

"He had a slit lamp built into a closet in the living room," said Andrew. "Patients would come over and he would treat them right there in the living room."

Andrew Wherley, MD went to college with an interest in soil and water conservation. After a couple of years, he decided that he had a different calling: to help people.

"I went to med school thinking I would be a small town family doctor," said Andrew. "During years when you rotate through the different clinical areas, I started with Psychiatry, General Surgery, and Pediatrics. None of them quite fit and by this time my wife was pretty worried."

It was then that Andrew completed an ophthalmology elective and knew instantly that was where he wanted to be.

"When he said he wanted to go into Ophthalmology," said Benjamin. "I told him that was terrific, and when he said he was going to do it at Ohio State, I was thrilled."

"I was drawn towards medicine by seeing how patients appreciated my dad and how he made a difference in their lives," said Andrew.

Andrew frequently hears stories from his dad's patients who traveled to Cleveland or as far as Chicago to see an ophthalmologist. They would be asked 'Why are you here when you have the best ophthalmologist around right in your hometown?"'

"Patients still tell me how much they love my Dad," said Andrew. "I know I'll never live up to his legacy. Of course, that's what my Dad would say about his father as well."

What does his dad think?

"Well, when Andy came into town, I thought, 'What am I doing here?'" said Benjamin. "He's smarter than I am. He's a better surgeon than I am. And from the feedback I get from everyone, I know they just love him. I couldn't be more proud."

Drs. Benjamin and Andrew Wherley

Benjamin Wherley, MD

Andrew Wherley, MD

Dr. Alan Letson with Dr. Holton Letson

HOLTON LETSON, MD

JANUARY 23, 1925 - DECEMBER 29, 2010

Professor. Military doctor. Electronics junkie. World traveler. Ophthalmologist. Photographer. Dad. How do you describe Holton Letson, MD who spent his entire life dedicated to helping people, whether with ophthalmic care or just being a good person?

Born in Red Cloud, Nebraska, a child of the dust bowl depression, Holton came from a very humble background. As a teenager, he worked in the Kansas wheat fields in the summer. Although his family did not have much, they believed in education. That is a value that he passed down to his son Alan Letson, MD, OSU Ophthalmology Residency Director.

"I think that's been the key concept for my family," said Alan, "the importance of education."

He was a National Merit Finalist which provided scholarship money for him to attend Doane College in Crete, Nebraska where he studied pre-medicine. At 18, he was drafted for WWII. There was a great need for Army doctors and he scored very high on the aptitude test. After boot camp, he was sent to Stanford. When he completed his undergraduate degree, he transferred to Nebraska Medical School. He finished his medical degree in time to see the end of WWII.

He interned in surgery at The Ohio State University Hospitals where he met Betty Mellinger, a nurse who was working in University Hospitals. They were married in May 1949.

He had finished two years of residency in Detroit at the Kresge Eye Institute when the Korean War began. He was called back into service and was stationed first in Panama then in Puerto Rico. When the war ended, he and Betty returned to Detroit so he could complete his residency.

"He was always grateful and thankful for his army experience," said his son Alan. "He always felt fortunate and lucky."

After residency, Dr. Letson started a practice in Zanesville, Ohio. He was a comprehensive ophthalmologist, which back then, meant that he did everything from retinal detachments and cataracts to glaucoma surgery and ophthalmic plastics, all this in a pre-microscopic surgery and pre-laser era.

As one of only a few ophthalmologists between Columbus and Pittsburgh at the time, Dr. Letson had a very busy, successful ophthalmology surgical practice. He often went to work at 6:00 am and came home for family dinner at 8:00 pm. He worked 6 days a week and made rounds every Sunday after church.

"His patients loved him," said Alan. "To this day I still see people he took care of years ago and they still tell me what a wonderful doctor he was. How he saved the sight of their child, their spouse, or themselves. I hear that all the time."

Dr. Letson wanted to maintain some academic ties to Ohio State and stay current with ophthalmology advances. In the early 1950s, he began staffing the resident clinic in Starling Loving Hall. Every Monday for the next twenty years he would make the trip from Zanesville to Columbus to train the OSU residents. One of the most exciting times for him was the medical mission trip he and OSU residents took to Algeria for several months.

He also loved gadgets. Even in retirement, he was up-to-date with laptops and wireless routers and scanners. Throughout his life he was always playing with the newest technology, whether computers, cameras, ophthalmic equipment, music, cars, or airplanes.

He had a natural curiosity about people, places, and cultures. An avid world traveler all his life, he circumnavigated the globe at least three times and traveled to nearly every country and environment on the planet.

In 1989, he and Betty moved to Hilton Head Island and in his retirement he worked for his church, St. Luke's Episcopal Church, was active in Rotary, and volunteered as a reading tutor for children in the Hilton Head schools.

He was a very giving, kind person; and he was always happy. He was very humble; would never brag about his accomplishments or philanthropic work.

When his son, Alan, who shared his father's love of teaching, began training ophthalmology residents full-time at OSU, Dr. Letson created a fund to support his efforts in education and research. He looked at that as a way to "pay forward" for the training that he had received.

He was very social and engaging. He could walk into a room of 50 strangers and would walk out two hours later with 25 new friends.

"He could connect and communicate with people," recalled Alan. "He was kind and generous, a wonderful husband, father and grandfather, an outstanding physician, and a true gentleman with a delightful sense of humor, which he retained even in his last days. In his mind, life's glass was always 90% full."

An article can barely scratch the surface of what an incredibly dedicated, productive, and thorough life Dr. Letson led. His son Alan said it best, "His life set a high standard for me to live up to." And really, it's a challenge for us all to live such a full life.

NEW DEPARTMENT FACULTY

SHELLY GUPTA, MD

In September of 2011, our new glaucoma specialist, Clinical Assistant Professor Shelly Gupta, MD, will be available for patient scheduling.

Dr. Gupta obtained a Bachelor of Science in Natural Sciences/Chemistry *cum laude* from the University of Akron. She went on to study medicine at Northeastern Ohio Universities College of Medicine. Following graduation, she spent a year at the Good Samaritan Hospital, TriHealth for an Internal Medicine internship. After completing an ophthalmology residency at University of Alabama at Birmingham, she was chosen to complete a glaucoma fellowship at Wills Eye Institute in Philadelphia.

Dr. Gupta is a caring, civic-minded physician who spends much of her time improving the lives of others by volunteering with the Foundation to Prevent Blindness, Unite for Sight, Sight Savers America, Eye Care Alabama, and an ophthalmology clinical and surgical mission trip to Honduras.

She is a member of the American Academy of Ophthalmology, and the Association for Research in Vision and Ophthalmology.

CHANTELLE MUNDY, OD

Dr. Mundy, our newest Clinical Assistant Professor at the Havener Eye Institute, is an optometrist specializing in low vision and contact lens fitting.

Dr. Mundy received her undergraduate education at The Ohio State University, receiving her Bachelor of Science. She continued her education at The Ohio State University College of Optometry, where she earned her Doctoral Degree. Upon graduation, she completed a residency at the Cincinnati Eye Institute focusing on the management of ocular disease.

She has participated in humanitarian trips with Student Volunteers for Optometric Service to Humanity (SVOSH) to Nicaragua. She also participated in an optometric mission trip in Tanzania and is involved in educating the local community on the importance of eye health.

Dr. Mundy is a member of the American Optometric Association and Ohio Optometric Association. She is certified by the National Board of Examiners in Optometry in the treatment and management of ocular disease.

TO SET UP AN APPOINTMENT CALL (614) 293-8116

MEET THE FELLOWS

(Fellows listed from left to right)

SUNDAY OLATUNJI, MD
RETINA

Medical School: Chicago Medical School

Residency: Kresge Eye Institute, Wayne State University

CEDRIC PRATT, DO
RETINA

Medical Degree: University of North Texas Health Science Center

Residency: OSU Havener Eye Institute

ATIF COLLINS, MD
NEURO/PLASTICS

Medical Degree: Case Western Reserve University

Residency: Case Western Reserve University

WILLIAM SAWYER, DO
CORNEA

Medical Degree: University of North Texas Health Science Center

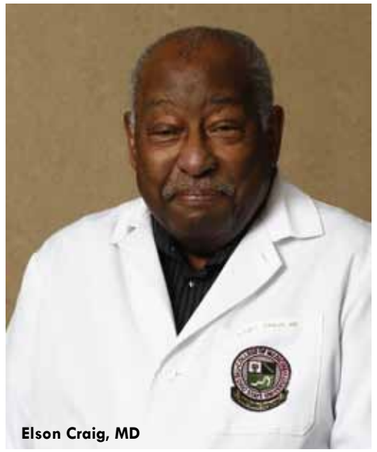
Residency: Grandview Hospital (Dayton, OH)

OSU EYE ROUNDS
The Ohio State University • Havener Eye Institute • Department of Ophthalmology

A Davidorf Lectureship Event, "Complex PVR Managment"

Gary Abrams, MD - Wayne State University, Chair
Dal Chun, MD - Walter Reed Army Medical Center

Join us Thursday, May 19, 2011 for a complimentary CME & dinner event at the OSU Eye & Ear Institute located at 915 Olentangy River Road. RSVP to Barbara.Landolfi@osumc.edu or call (614) 293-8760



Elson Craig, MD

Dr. Craig examining specimens

THE LIFE OF ELSON CRAIG, MD

NOVEMBER 27, 1932 - JANUARY 1, 2011

"Dr. Craig was a renaissance man," said longtime friend and colleague Paul Weber, MD. "He did everything and did it well. Not just in ophthalmology, but in life. He rehabbed homes, was an excellent chef, a fantastic musician. As for ophthalmology, I still have patients that ask about him because of his high quality of care."

Elson Craig grew up in Columbus, Ohio. He attended East High School and was active in the Science Club as well as several musical productions. He was elected by his senior classmates to be the "most likely to succeed."

Dr. Craig enrolled at The Ohio State University with a major in biology and a minor in mathematics. While at Ohio State, he joined the ROTC and met his future wife, Joanne.

After graduation, he was commissioned as a Second Lieutenant and was stationed in Germany, which allowed him to travel extensively throughout Europe. Dr. Craig received several citations for his service and was given a full-dress parade at the end of his tour of duty.

He returned to Ohio and obtained a position as a research assistant at OSU. He was given the opportunity to learn techniques in transmission electron microscopy from the physicist who co-developed this instrument.

Dr. Craig became one of two researchers in Ohio who were trained in this procedure for biological tissues. During this time, he obtained a masters degree in histopathology.

Dr. Craig entered medical school at OSU and was elected class president his junior year. He was the first African American to receive this honor. During medical school, he continued his work in pathology. His first introduction to ophthalmology was when he was asked to study ocular tissue by Ophthalmology Chairman Dr. Torrence Makley who later became his mentor, colleague, and friend.

After completing his internship at Mount Carmel Hospital, he trained under Dr. Makley in the OSU Ophthalmology Residency Program and served as Chief Resident in 1970.

Dr. Craig was awarded a Heed Fellowship in Ophthalmic Pathology at the University of California in San Francisco.

Dr. Craig returned to Ohio to start his practice at Ohio State in 1971. In 1973, he was asked to become the Assistant Dean for Student Affairs. He served in this position for thirteen years and during his tenure obtained a one million dollar federal grant to recruit and retain minority students at Ohio State Medical Center.

During this time, Dr. Craig also established his patient practice which specialized in uveitis, retinal diseases, orbital tumor, and ophthalmic pathology.

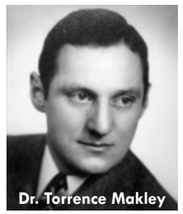
"I spent my career with an office next to Elson," said Dr. Frederick Davidorf, a former classmate and colleague. "He was a lot of fun to have around and one of the smartest people I have ever met. Whenever I didn't know something, I'd ask Elson. He was like a textbook. He'd tell you the origin of the disease and all about it."

Dr. Craig had a passion for education and spent over 40 years sharing the knowledge that he had amassed to residents, fellows, and medical students. To honor his legacy, the Elson Craig, MD Ophthalmic Pathology Fund (#482067) has been created to support research and programs involving ophthalmic pathology.

MAKLEY-CRAIG SYMPOSIUM

A new educational event, the Makley-Craig Symposium, was held on January 8, 2011. It will serve as an annual tribute to Dr. Craig and Dr. Makley and their untiring commitment to education. The conference will allow faculty to present their research and education initiatives in all areas of ophthalmology.

First Annual Makley-Craig Symposium



Dr. Torrence Makley

Dr. Elson Craig

Drs. Cate Olson, Sireesha Clark, William Terrell, and Honey Herce

POSTGRADUATE MEETING

Comprehensive ophthalmology is a diverse area of medicine. It includes aspects of all subspecialty areas in ophthalmology, including cornea, external disease, cataract, glaucoma, retinal disease, neuro-ophthalmology, oculoplastics, and pediatric ophthalmology.

The 54th Annual Postgraduate Symposium in Ophthalmology reviewed comprehensive ophthalmic problems and exposed the significant changes that have occurred in the last decade. Held in early March, Course Directors Julie Meier, MD and Amit Tandon, MD designed a program that covered changes in a practice patterns, new surgical techniques, and understanding the disease process.

Among the dynamic national and international speakers were Edward Buckley, MD (Duke University), David Dueker, MD (Medical College of Wisconsin), Dennis Han, MD (Medical College of Wisconsin), Gary Lelli Jr., MD (Weill Cornell Medical Center), Mujtaba Qazi, MD (Pepose Vision Institute), Donald Tan, MD (Singapore National Eye Centre and Singapore Eye Research Institute), and Jonathan Trobe, MD (University of Michigan).

"It's great to be a part of a meeting that has drawn some of the greatest ophthalmology minds from all over the world," said Dr. Tandon. "Hopefully, we can all use their experience and knowledge to help our practices and help our patients."

Drs. Richard Lembach and Robert Lembach

Drs. Tom Dingle, David Rogers, and Julie Lange

Drs. Chantelle Mundy and Carrie Lembach

Drs. Julie Meier and Amy Kopp

SUPPORT OSU RESIDENTS

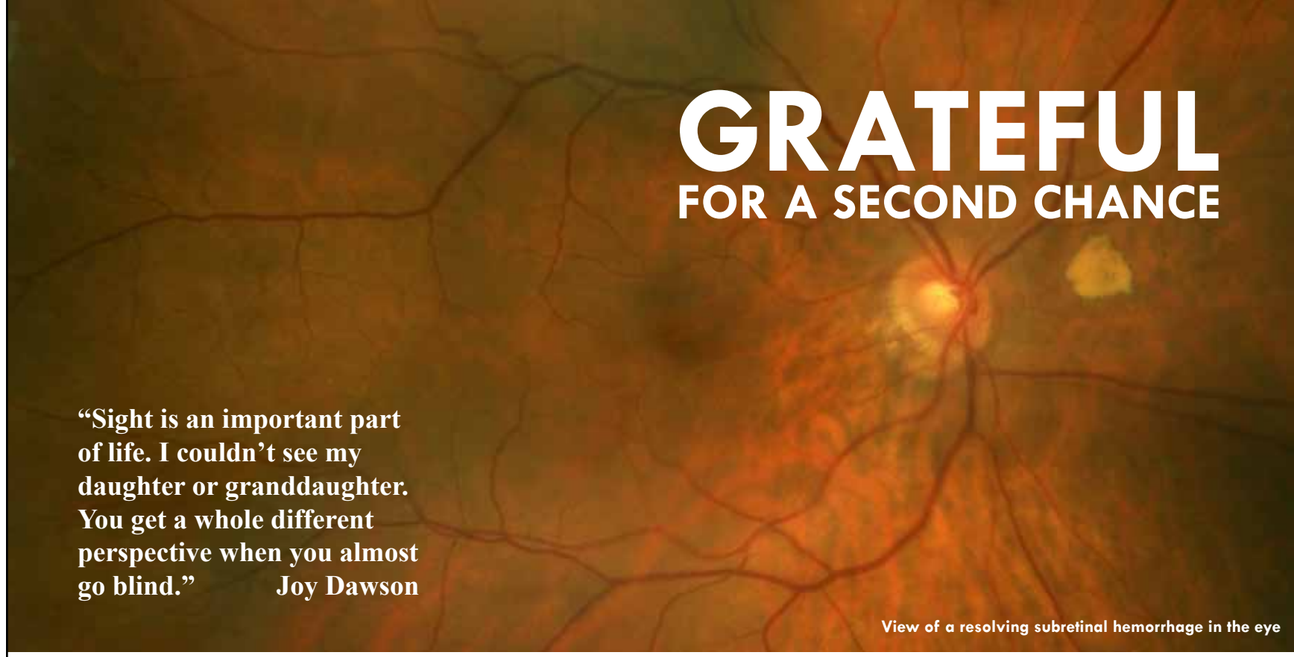
PUT THE TOOLS FOR SUCCESS IN THEIR HANDS

The postgraduate meeting also debuted the newest educational initiative from the Havener Eye Institute. The innovative EYESI Surgical Simulator provides cataract and vitreoretinal surgery practice for residents in a 3D, physics-based, virtual environment.

"This simulator is critical to training residents," said Dr. Mauger. "It will give them realistic experience before they ever operate on a patient."

Donations have already been made toward this simulator which is valued at $176,000, but we have not yet reached our goal. To make a donation, contact Barbara Landolfi at (614) 293-8760.

Drs. Andrew Hendershot and Adam Cloud discuss the new surgical simulator with Dr. David Adams



GRATEFUL
FOR A SECOND CHANCE

"Sight is an important part of life. I couldn't see my daughter or granddaughter. You get a whole different perspective when you almost go blind." Joy Dawson

View of a resolving subretinal hemorrhage in the eye

On October 4th, 2010 at 5:00pm, Joy Dawson was preparing to meet friends. She was still at work at Nationwide Insurance where she works as an IT specialist and stepped into the restroom for a moment. She does not remember anything about the next five weeks. Joy had an aneurysm in her brain which ruptured. The emergency squad was called. Joy's daughter, Mireille Tussing arrived in time to travel with her mother to the emergency room.

The next five weeks Mireille watched her mother undergo multiple tests, procedures, and surgeries. When doctors had successfully managed the aneurysm, and she was beyond the risk of seizures, she was transferred to the rehabilitation center at OSU's Dodd Hall.

"I would say that that first week in Dodd was when I recognized that mom was finally coming back and starting to be herself again," said Mireille. "The following Monday, I wheeled her down to her first rehab session. All of the other vision tests that she had previously failed, I had blamed on sedation. This time I realized, 'She really can't see.'"

During her sessions, the rehabilitation specialist kept trying to have Joy stand up and walk with assistance, but Joy kept insisting "I don't want to run into that wall," or "I'll hit that chair". They could not convince Joy that there was no wall or chair in her way. She was seeing things that were not there.

"I was describing things that didn't exist," said Joy, "and no one really argued with me because they assumed I had brain damage from the aneurysm."

Mireille noticed that none of her other functions seemed disabled. Joy recognized familiar voices, had conversations with people, and demonstrated a good memory.

"To me it wasn't consistent, everything seemed all there," said Mireille. "That was when they brought someone to take a look at her eyes."

Dr. Cedric Pratt, the ophthalmology fellow who examined Joy, found blood which had pooled in the back of her eyes. Dr. Colleen Cebulla, a retina specialist at the OSU Havener Eye Institute, confirmed the diagnosis: Terson's Syndrome.

Back row: **Mireille, Dr. Cebulla, and Dr. Pratt**
Front row: **Joy and Dr. Honey Herce, a resident**

Terson's Syndrome is a rare condition caused by intraocular bleeding due to intracranial bleeding and high intracranial pressures, most often resulting from a ruptured aneurysm of the brain. The "hallucinations" were caused by Joy's brain interpreting the blood as familiar shapes.

This was the first bit of good news for Joy. It meant there was potential to improve her vision. Dr. Cebulla performed a vitrectomy, a surgery to remove the blood from her eye. With the eye clear of the hemorrhage, Dr. Cebulla was able to see to the back of the eye and examine the retina, and central vision area, the macula.

"We were very happy to find out that her macula looked good," said Dr. Cebulla. "There was a subretinal hemorrhage, but it looked like it was not affecting her central vision."

The day after the surgery Mireille brought her nine-year-old daughter Chloe in to see her grandmother. Chloe had been very worried about her Grandmother and had even said that all she wanted for Christmas was for "Gamma" to see her.

"I didn't tell her that grandma had had surgery and I didn't tell my mom I was bringing her. When my daughter walked in, Mom was in the middle of a conversation with one of the nurses. She stopped and said 'Chloe!' and my daughter responded, 'You saw me!' It still brings tears to my eyes."

A few weeks later, Dr. Cebulla was able to perform surgery on Joy's other eye. Again, a very dense hemorrhage was removed from the vitreous. Unfortunately, she had a lot of hemorrhage under the retina in the macula. They were not sure how good the vision would be, but over time that sub-retinal hemorrhage improved. Her vision in both eyes had improved from light perception to almost 20/20.

"I am so thankful," said Joy. "Without sight the physical therapy would have been nothing. I'm back to work now and live by myself. It's almost as if nothing happened."

The Ohio State University Medical Center

THE OHIO STATE UNIVERSITY
HAVENER EYE INSTITUTE
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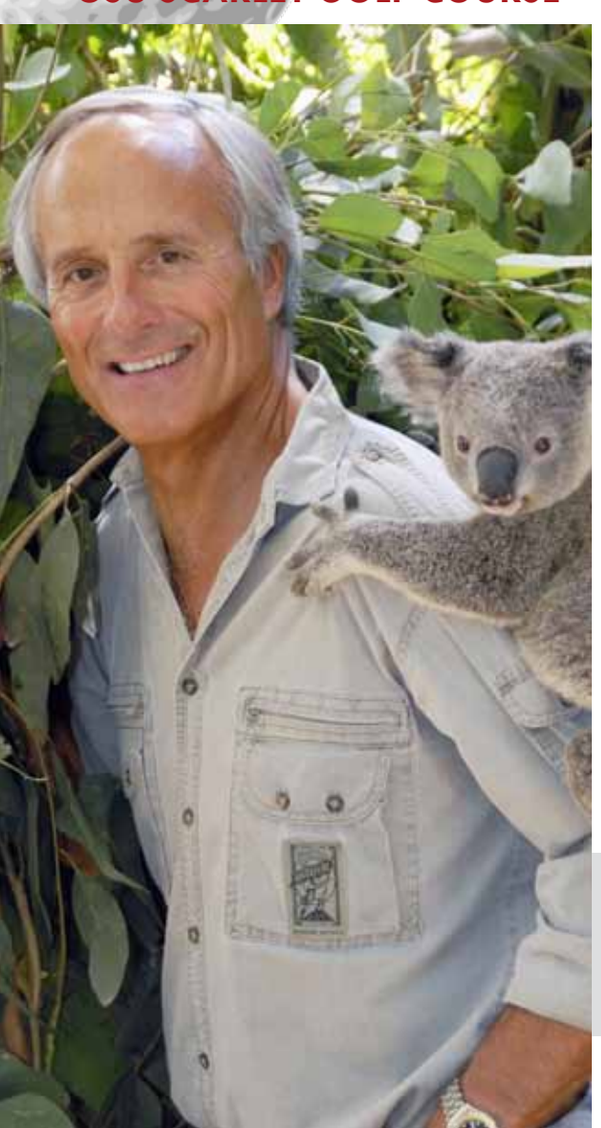
Columbus, Ohio 43212
www.eye.osu.edu

BuckEYE Golf Classic 2011

OSU SCARLET GOLF COURSE



JOIN US JUNE 6, 2011

Plan to attend the 6th Annual Havener Eye Institute BuckEYE Golf Classic to be held at the OSU Scarlet Golf Course. Proceeds from the BuckEYE Golf Classic benefit the OSU ophthalmology residency program.

Over the past five years, this event has provided ophthalmology residents with textbooks and equipment. This year, proceeds will go toward purchasing the innovative EYESI Surgical Simulator (valued at $176,000) which provides cataract and retinal surgery practice for residents in a 3D, physics-based, virtual environment.

SPECIAL GUEST: JACK HANNA

He is passionately dedicated to endangered animals. For more than 30 years, he has been the public face of zoos worldwide, bringing the conservation message to millions of people.

PLAYER PACKAGE - $250

- **18 holes of golf at Scarlet Golf Course**
- **Photo opportunity with Jack Hanna**
- **Challenge hole competitions**
- **Gift package & Ohio State polo shirt**
- **Lunch and dinner**
- **Prizes, awards, and trophy presentation**

FOR MORE INFORMATION

Visit us online at www.eye.osu.edu/event/golf to view a brochure or contact Barbara Landolfi at (614) 293-8760.