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**THOMAS MAUGER, MD**  
CHAIRMAN

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PROGRAM INTERN

OPHTHALMOLOGY OUTREACH  
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Dear Friends and Colleagues,

It is the individual people in an academic department that create the culture. We are fortunate to have a unique group staff, residents, fellows, and faculty that create a wonderfully positive culture. It is a joy to come to work each day in such an environment. Our patients add to this positive experience. Our patient satisfaction is among the highest in the medical center.

This year saw continued growth in the department in all areas. We added additional physician faculty with Dr. Shelly Jain (glaucoma), Dr. Marc Criden (orbit, oculoplastics, and neuro-ophthalmology), and Dr. John Melnyk (optometry) joining the Department. Our research ranks have swelled with the addition of Dr. Guoqiang Li in collaboration with the Department of Computer and Electrical Engineering. Dr. Li’s area of research involves optics and imaging and has many translational aspects to the clinical arena.

Our fellowship ranks have also grown to a total of seven with the additional of an additional retina fellow (total of three) along with new glaucoma and comprehensive ophthalmology fellows.

Our residency remains strong. At the time of this writing we have just received our accreditation renewal thanks to the efforts of our educational director Dr. Alan, Letson, educational Coordinator, Trish Rebish, and our entire department. We have strong educational collaborations with Nationwide Children’s Hospital, the Columbus VA, and the Dayton VA. Our volunteer clinical faculty continue to generously donate their time and knowledge to the benefit of our trainees and patients.

Our research activity and extramural funding are at all time highs despite the challenges of an uncertain economy and federal support for research. Our research involves all areas of vision including age-related macular degeneration, diabetic retinopathy, corneal disease and transplantation, glaucoma, idiopathic intracranial hypertension, biomechanical properties of the eye, and ocular imaging.

As the new hospital skeleton begins to fill in we will continue to seek out opportunities to positively impact the lives of our patients, friends, and colleagues.

Thomas F. Mauger, MD, Chairman
Carl M. & Grace C. Baldwin Chair in Ophthalmology
OSU Department of Ophthalmology & Visual Science
Director, William H. Havener Eye Institute
When the light-sensitive layer from inside the back of the eye detaches, a “black curtain descends” and patients are left almost instantly blind. Even after visiting a retina specialist to fix the retinal detachment (RD), the patient’s trouble may be far from over.

Proliferative vitreoretinopathy (PVR) is the most common complication after a repaired RD. PVR is scar tissue that develops within the eye. It occurs in 5-10% of RD patients.

Vision loss may also persist if the macula is affected by the RD.

Colleen Cebulla, MD, PhD, an OSU retina specialist, is trying to find out why these scars form and what can be done to prevent them. She is also studying ways to protect the damaged retina. Dr. Cebulla was awarded a National Institutes of Health funded KL2 Grant through The OSU Center for Clinical & Translational Science. She chose to develop animal models to study which proteins are important for RD and PVR. When they are identified, they can potentially be targeted for clinical therapy.

Proteins are the machinery of cells and tissue. They provide structural support, defense against germs, and a host of other functions. Utilizing proteomics (the large-scale study of proteins, particularly their structures and functions), Dr. Cebulla is trying to find the protein or proteins that initiate scarring.

“I first developed a mouse model and used iTRAQ labels to individually label all the different samples,” said Dr. Cebulla. “That way, we could look at which proteins are increased or decreased in the retina during early PVR versus late PVR, compared to normal retina.”

iTRAQ (Isobaric Tags for Relative and Absolute Quantitation of protein) is a mass spectrometry technique used to quantify proteins from different sources in a single experiment. For proteomic studies, the tissue is isolated, then the protein is isolated from that tissue.

Once the proteins are isolated, they are divided into smaller fragments that are labeled with iTRAQ tags, so that each different condition has a different tag. This way, the relative amounts of specific proteins from each different iTRAQ group can be determined.

“In my group of early PVR, I can see that numerous proteins are increased compared to the control retina,” said Dr. Cebulla.

In collaboration with Andy Fischer, PhD in OSU Neuroscience, Dr. Cebulla has also developed a chicken retinal detachment model that has many more similarities to humans and has a larger eye than a mouse eye.

“The human retina has a lot of cone photo receptors and that’s what helps us see color vision,” said Dr. Cebulla. “It is especially important for our central vision. Other animals do not have that.”

“Right now, there is no pharmacologic treatment for PVR or the vision loss from detachment of the macula,” said Dr. Cebulla. “This animal model will allow us to study potential therapies for PVR or protective treatments for photoreceptors. This research is helping us to make critical connections in the lab that may ultimately translate into patient care and that’s a connection I wouldn’t miss for the world.”
Most all of us donate to one or more charities. The goal of giving is to support a worthwhile cause to make a difference in people’s lives. Through the philanthropy of Warner and Patti Blow, the Department, under the guidance of Dr. Frederick Davidorf, has established the Patti Blow Research Team to make a difference in patients with eye cancer.

Last month we celebrated the 10th anniversary of the lab and reviewed many of the accomplishments. Dr. Steven Gabbe, The CEO of The OSU Medical Center, welcomed and thanked the Blows for their support of the Department of Ophthalmology and The Ohio State University College of Medicine. Researchers from Ophthalmic Oncology, Radiation Oncology, Hematology Oncology, Surgical Oncology, Pathology, and Human Cancer Genetics are part of the multi-disciplined approach to the management of ocular melanomas at Ohio State.

Patients seen on the Ocular Oncology Unit by Fred Davidorf, MD and Colleen Cebulla, MD, PhD are asked to enroll in the “Melanoma Study.” The Ocular Melanoma Team studies the molecular genetics of ocular tumors looking for tumor markers that can be used to find and treat early metastatic diseases via target therapy. This type of therapy is directed toward blocking the rapid growth and spread of circulating melanoma cells. Warner acknowledged their many accomplishments. He thanked the dedicated researchers and staff that have worked diligently over the years to achieve so much.

The goal of their contributions has always been to support basic research with an emphasis on diseases such as diabetic retinopathy, age-related macular degeneration, and melanoma of the eye.

Now, a decade of results have led us to a more promising future for patients with ocular cancer. The Blows have made a difference. We thank them.
WHAT’S NEXT IN OPTICS?

Our newest faculty researcher, Guoqiang Li, PhD has fresh ideas as well as a passion for pushing the scientific envelope and changing the visual world.

Dr. Li received his PhD from the Shanghai Institute of Optics and Fine Mechanics, and then completed a fellowship in the Department of Electrical & Computer Engineering at the University of California, San Diego. After graduation, he worked on developing a scanning laser polarimeter for the diagnosis of glaucoma. A scanning polarimeter uses polarized light to measure the thickness of the retinal nerve fiber layer (the light sensitive tissue that lines the back of the eye).

When he had a commercially available concurrent prototype scanning polarimeter, he began focusing on adaptive optics.

“One of my early projects was to develop adaptive eyeglasses,” said Dr. Li. “The idea is to overcome the disadvantages of the current bifocal and trifocal eyeglasses.”

In 2008, Dr. Li’s work with adaptive eyeglasses was published and had such an impact that he has been interviewed by more than 250 media sources, including print, radio, and TV. Dr. Li has since started a new project trying to improve the quality of ocular imaging of the eye.

“We are working on improving the resolution of confocal and OCT imaging by correcting the aberration of the eye using adaptive optics. This will help capture very fine detail of the different parts of the eye, including the cornea, anterior segment, the retina, and eventually the vitreous humor.”

“Right now we have built an OCT system with better resolution than what is commercially available, so that we can see more detailed features for different layers of the retina for better diagnosis from a cellular level.”

Before coming to Ohio State, Dr. Li was on faculty at the University of Arizona’s College of Optical Sciences and the University of Missouri’s College of Optometry. He maintains his connections in St. Louis and is collaborating with a Washington University Ophthalmologist who found that one early indication of cataracts is liquidation of the vitreous humor. Dr. Li is planning to use his high-resolution optical imaging technique to quantitatively determine it.

“He is a talented and dedicated scientist,” said Cynthia Roberts, PhD, a fellow ophthalmology researcher. “His work is really at the cutting-edge and we are pretty excited to develop new collaborations with him now that he is at Ohio State.”
The Research Division spans all specialties of Ophthalmology, and includes faculty, residents, medical students, graduate fellows, and graduate students. Three research faculty with primary appointments in Ophthalmology include Dr. Mohamed Abdel-Rahman, Dr. Deborah Gryzbowski, and Dr. Cynthia Roberts. A new member of the research faculty who joined the Department last year is Dr. Guoqiang Li, who specializes in optical devices for ophthalmology, and brought substantial extramural funding with him from his previous institution.

A strong collaboration continues with the Department of Biomedical Engineering, and includes three faculty with courtesy appointments in Ophthalmology. Dr. Ronald Xu re-searches sustained intravitreal drug delivery via multifunctional micro/nano particles. Dr. Yi Zhao investigates micro/nanofabrication for simulating 3-D ocular tissue structures. Dr. Jun Liu continues her work on an R01 award from the National Eye Institute in excess of $1,000,000 to study Corneoscleral Biomechanics and Intraocular Pressure.

Small research projects are supported with an annual endowment by the Ohio Lions Eye Research Foundation (OLERF). A portion of the grant supports basic research in the Ohio Lions Ophthalmic Research Laboratory.

Norbert Peiker, Executive Director of OLERF for many years, stepped down this year due to a serious health issue. In his honor, the OLERF Board voted to name our graduate fellowship, “The Norbert Peiker Fellowship” and we are the only institution in Ohio to receive this title. Our first Norbert Peiker Fellow is Kim Metzler, who is studying corneal biomechanics. Our former Lions Fellow, Leilei Zhang, will finish his PhD on December of 2012.

Keerthana Bolisetty, a first year medical student, received both the Prevent Blindness Ohio Young Investigator Student Fellowship Award for Female Scholars in Vision Research as well as a Fight-For-Sight Summer Fellowship.

**RESIDENTS:**


"Presence of Pigment Epithelial Detachment in Central Serous Chorioretinopathy using High Definition Optical Coherence Tomography." Kristen Burwick, Michael Wells.


"An Epidemiologic Study of Non-ocular Surgical Wound Healing Outcomes in Exudative Macular Degeneration Patients Receiving Intravitreal VEGF Inhibitors." Honey H. Herce, Angela Jiang, Jillian Wang, Sashwati Roy, John Christoforidis.

"Histopathology of Optic Nerve Pit associated Maculopathy." William D. Terrell, Frederick Davidorf, John Christoforidis

"Visual Outcomes Following Optic Nerve Sheath Fenestration." Dominic M. Buzzacco, Steven E. Katz

**GRADUATE STUDENTS**


**MEDICAL STUDENTS:**

"Influence of Internal Pressure and Distance from Air Nozzle on Maximum Deformation Depth under an Air Puff of Pig Corneas." Sue Shiao, Ashraf M. Mahmoud, Jun Liu, David Lee, Kimberly Metzler, Chris Minning, Cynthia J. Roberts.


"Serum Levels Of Intravitreally Placed I-124 Bevacizumab And I-124 Ranibizumab In A Rabbit Model Following Lensectomy, Vitrectomy And No Surgery." Angela Jiang, Jillian Wang, Cedric Pratt, Michelle Carlton, George Hinkle, Michael V. Knopp, John Christoforidis.


**UNDERGRADUATE STUDENTS**


Since 2004, when Thomas Mauger, MD, was named chairman, the Havener Eye Institute has doubled in size and moved into a dramatic new outpatient building. Dr. Mauger is focused on seeing patients; doing research; working with students, residents and fellows; and traveling to developing countries to save sight whenever possible. His patient-centered approach has won him admirers, accolades, and several teaching awards.

Along with Alan Letson, MD, the Department’s Director of Education and the Retina Division, Mauger has responsibility for the Department’s three-year residency program, which includes participation with clinics at Ohio State, Nationwide Children’s Hospital and the Columbus and Dayton Veterans Administrations. Mauger has authored or contributed to nine books and nearly 60 articles and has given scientific presentations worldwide.

Dr. Mauger oversees numerous research projects focused on ocular surface disease, responses of the cornea to ophthalmic medications, corneal preservation solution analysis, and corneal changes as a result of laser surgery. Most recently, he and co-authors have reviewed confocal results over the past decade, examined the relationship between collagen fiber density and corneal hysteresis (the energy absorption capability of the cornea), and evaluated the efficacy of virtual reality surgical training systems, among other projects.

Dr. Mauger has made a commitment to providing ophthalmic care to underserved populations both in developing countries and here in Columbus. He has been instrumental in obtaining needed exam equipment for the Columbus Free Clinic, and he volunteers there with other faculty, residents and resident alumni on nearly a weekly basis to provide eye care for those who don’t have health insurance.

2012 RESEARCH & PUBLICATIONS


Mauger TF. "Long term Safety and Effectiveness of the VEGAUV-A System for Corneal Collagen Crosslinking in Eyes with Keratoconus or Post Refractive Corneal Ectasia (CXL-003)." Topcon. 2011-12.


2012 RESEARCH & PUBLICATIONS


Astigmatism progression in the early treatment for retinopathy of prematurity study to 6 years of age. Davitt BV, Quinn GE, Wallace DK, Dobson V, Hardy RJ, Tung B, Lai D, Good WV; Early Treatment for Retinopathy of Prematurity Cooperative Group.


ASSOCIATE PROFESSOR
PEDIATRIC DIVISION DIRECTOR

BA - Otterbein University in Westerville, OH
MD - St. Louis University in St. Louis, MO
Residency - The Ohio State University in Columbus OH
Pediatric Fellowship - Jules Stein Institute, UCLA in Los Angeles, CA

Don L. Bremer, MD, is Interim Chief of the Department of Ophthalmology at Nationwide Children’s Hospital and an Associate Professor of Ophthalmology at The Ohio State University College of Medicine.

His clinical interests include strabismus, amblyopia and retinopathy of prematurity (ROP). He has been principal investigator or co-principal investigator on several multicenter National Institutes of Health grants, including the CRYO-ROP study, STOP-ROP, ETROP and the ATS studies. He is also the principal investigator in a three-year study of medication to retard the progression of myopia in children.

He currently directs the participation of the Pediatric Eye Disease Investigation Group (PEDIG). Dr. Bremer is also a fellow of the American Academy of Ophthalmology and a member of the American Association for Pediatric Ophthalmology and Strabismus.
Dr. Katz has diverse clinical interests including orbital tumors, thyroid eye disease, orbital fractures, skull base tumors, head and neck cancer reconstruction, eyelid malpositions, eyelid tumors, idiopathic intracranial hypertension, strabismus surgery, giant cell arteritis and diseases of the optic nerve. His research interests include the medical and surgical management of idiopathic intracranial hypertension, management of orbital tumors and surgical reconstruction of the eyelids and orbits.

He has written 37 peer-reviewed journal articles and 13 book chapters. He is an article reviewer for numerous journals and a grant reviewer for the American Institute of Biological Sciences. He is a clinical and scientific advisor to the Chief of Space Medicine at NASA Johnson Space Center, and a scientific advisor to the Intracranial Hypertension Research Foundation. Dr. Katz is currently a principal investigator in the Idiopathic Intracranial Hypertension Treatment Trial which is sponsored by the National Institutes of Health and the National Eye Institute.

Dr. Katz is highly dedicated to educating future ophthalmologists and has even created a two-year Fellowship within the division of Neuro-ophthalmology, Orbital Disease & Oculoplastics.

2012 RESEARCH & PUBLICATIONS


A Multicenter, Double-blind Randomized Placebo-controlled Study of Weight Reduction and/or Low Sodium Diet plus Acetazolamide vs Diet plus Placebo in Subjects with idiopathic Intracranial Hypertension with Mild Visual Loss. Principal Investigator, sponsored by the National Eye Institute.

Phase 2, Open-label Single Arm Study of the Efficacy and Safety of PF-02341066 in Patients with Advanced Non-small Cell Lung Cancer Harboring a Translocation or Inversion Involving the Anaplastic Lymphoma Kinase (ALK) Gene Locus, Sub-Investigator (Pi Greg Otterson, M.D.), sponsored by Pfizer.
REBECCA KUENNEN, MD

Dr. Kuennen is a full-time clinical and surgical ophthalmologist. She specializes in corneal and external diseases of the eye as well as anterior segment disease. In addition to working at the Havener Eye Institute, she sees patients at Nationwide Children’s Hospital and staffs the residents at the Columbus VA Outpatient Clinic and the Dayton VA Medical Center. Her practice volume has grown significantly over the past several years.

Dr. Kuennen continues to be the Anterior Segment Division Director. She also is the Ophthalmology Representative on the Faculty Council and is the faculty advisor for Project Nicaragua, an undergraduate organization. She is actively involved on the Residency and Fellow selection committees.

Dr. Kuennen is a co-investigator on several clinical trials in the department. One trial involves examining the long term safety and effectiveness of corneal collagen crosslinking in eyes with keratoconus and post refractive corneal ectasia and another trial is the NEI/Case Western sponsored Cornea Preservation Time Study. She is also participating with the Infectious Disease Division on a clinical trial involving a new HIV vaccine.

Dr. Kuennen is very active in teaching students, residents and fellows. She organizes and gives resident lectures several times a month. She gives an annual lecture to the second year medical students and is currently involved in the new LSI curriculum. She organizes the department’s morbidity and mortality conferences, resident surgical video conferences, and corneal journal club. She helped organize and participated in the Mock Oral Board exams for the residents this year. She precepts students, residents, and fellows both in the clinic and in the operating room. This year she started taking part in the OSU College of Optometry Externship Program and has a fourth year optometry student rotate with her one half day a week.

ASSISTANT PROFESSOR - CLINICAL ANTERIOR SEGMENT DIVISION DIRECTOR

BS - Duquesne University in Pittsburgh, PA
MD - Drexel University College of Medicine in Philadelphia, PA
Residency - Drexel University College of Medicine in Philadelphia, PA
Cornea & External Disease Fellowship - The Ohio State University in Columbus, OH

2012 RESEARCH & PUBLICATIONS


Dr. Letson splits his time between patient care, teaching and research. His interests include retinal vascular diseases including diabetic retinopathy, macular degeneration and various small vessel diseases and endotheliopathies of the retina and optic nerve.

Dr. Letson is the Residency Program Director, Retina Fellowship Co-Director, Ophthalmology Medical Student Clerkship Director, Independent Study Program Ophthalmology Module Leader, Ophthalmology leader in the new LSI medical school curriculum and Director of the Retina Division in the Department of Ophthalmology. He staffs residents for Retina subspecialty rotations, clinics at the Gowdy Fields office, Prison Clinic Rotation and inpatient consults.

Dr. Letson presented at the Continuing Education 20/20 Retina Seminar and was the Chair of the Program Committee for the 2012 Annual Spring Ophthalmology Symposium on Diabetic Eye Disease. He also serves as a peer reviewer of manuscripts for ophthalmic journals.

An active advocate for clinical trials, Dr. Letson serves as the Principal Investigator for many national studies, including AREDS2, RIDE, GSK and a Co-Principal investigator for HARBOR, CATT, ACCORDION, DRCR-N.

2012 RESEARCH & PUBLICATIONS


Katz, S.; Collins, A.; Letson, A: “Scleral Erosion, Phthisis Bulbi and Orbital Pseudocyst Formation as a Late Complication of Miragel Scleral Buckle Surgery”, manuscript number: CABR 211-1196R1, is accepted for publication in the journal Retinal Cases & Brief Reports. January 2012.


ARVO 2012: Incidence of Sterile Endophthalmitis Related to Intravitreal Injections of Bevacizumab and Ranizumab: A Retrospective Review; Sireesha Clark, Alan D Letson

CYNTHIA ROBERTS, PHD

MARTHA & MILTON STAUB CHAIR
PROFESSOR
RESEARCH DIVISION DIRECTOR

Nursing BS – University of Iowa in Iowa City, IA
Electrical Engineering MS – The Ohio State University in Columbus, OH
Biomedical Engineering PHD – The Ohio State University in Columbus, OH

Dr. Roberts serves as Director of Research in the Department of Ophthalmology, and has a 20% cross appointment in Biomedical Engineering where she advises Ph.D. and M.S. students in vision research. Dr. Roberts is an excellent cross-college bridge between Medicine and Engineering.

Dr. Roberts research interests include corneal and ocular biomechanics in cornea, refractive surgery and glaucoma; in vivo measurement of corneal biomechanics including ultrasonic and dynamic topographic techniques, as well as ophthalmic imaging applications including corneal topography, Scheimpflug tomography, and Optical Coherence Tomography. She received a research award from the Columbus Foundation for $87,000 to investigate a new biomechanical mechanism of damage of the optic nerve in glaucoma, which is one of 5 funding priorities of the NEI in the area of glaucoma.

Dr. Roberts has given over 120 National and International Invited Lectures in courses for CME credit or the equivalent in European countries, 14 of which were in the last year. In addition, she has published over 75 papers in peer reviewed journals with 8 in the past year; she has contributed to 18 book chapters and is currently editing a book on Corneal Topography. She has given over 170 invited scientific presentations, both domestically and internationally, with 10 given in the past year including those in France, England, Austria, Egypt and Cyprus. Dr. Roberts has participated in over 140 scientific abstracts, with 6 ARVO paper/posters in 2012. She has served as Session Chair, Moderator, or Panelist at multiple scientific meetings.

Dr. Roberts continues to serve on the Editorial Board of 2 major journals in Ophthalmology, as well as the Selection Committee for a Fellowship in Vision Research offered by Prevent Blindness Ohio. She consults for multiple medical device companies.

2012 RESEARCH & PUBLICATIONS


Dr. Weber has had a long and distinguished career in clinical research, medical education, and extraordinary patient care. A world-renown leader in the field of glaucoma, he has made significant contributions toward the treatment and prevention of the disease.

Dr. Weber has served as the principal investigator on some of the most influential National Institute of Health studies in ophthalmology. His research into glaucoma care, management, and prevention has led to major healthcare advances.

Since joining the faculty in 1978, Dr. Weber has served as the Director of the Glaucoma Division, Department Chairman, and Vice Dean of Education for the OSU College of Medicine. He has made a name for himself, both as a physician and an educator, garnering many awards from “America’s Best Doctors” to “Champion of Family Medicine” to “Professor of the Year”.

Dr. Weber was recently recognized with The Ohio State University College of Medicine’s 2011 Lifetime Achievement Award for his innumerable contributions to Medical Education.

2012 RESEARCH & PUBLICATIONS

**Corneal Stiffness and Tonometric Measurements of IOP (Co-Investigator)** American Health Assistance Foundation. National Glaucoma Research.

**Corneal biomechanics and intraocular pressure. (Co-Principal Investigator)** National Institutes of Health

Roberts CJ (PI), Fleming GF, Small, Weber PA. Interaction of ocular pulse amplitude (OPA) and the difference between intracranial pressure (ICP) and intraocular pressure (IOP) as a mechanism for glaucomatous damage. Columbus Foundation.


MOHAMED ABDEL-RAHMAN, MD, PHD

**ASSISTANT PROFESSOR**  
**RESEARCH DIVISION**

MB BCh (MD) - Cairo University, Cairo, Egypt  
PhD - The Ohio State University in Columbus, OH  
Pathology Residency - Theodore Bilharz Research Institute in Giza, Egypt  
Pathology Residency - Faculty of Medicine, Menoufiya University in Egypt  
Pathology Fellowship - National Liver Institute, Menoufiya University, Egypt  
Cancer Genetics Post-Doctoral Fellowship - University of Texas in Houston, TX  
Ophthalmic Pathology Fellowship - The Ohio State University in Columbus, OH  
Clinical Cancer Genetics Fellowship - The Ohio State University in Columbus, OH

Dr. Abdel-Rahman is a research faculty member specializing in pathology, clinical genetics and molecular genetics. His research interests include molecular diagnosis of ocular melanoma, identifying novel targets for therapy of ocular melanoma and study hereditary predisposition to ocular melanoma and other cancers.

Dr. Abdel-Rahman has an adjunct appointment at the division of human genetics. He is working with Medical and Ocular oncology colleagues to develop a clinical trial for management of uveal melanoma patients with high-risk for systemic metastasis. Additionally, he teaches Ophthalmic Pathology for ophthalmology residents.

CYBIL CASSADY, MD

**CLINICAL ASSISTANT PROFESSOR**  
**PEDIATRIC DIVISION**

BS - The University of Michigan in Ann Arbor, MI  
MD - Medical College of Ohio in Toledo, OH  
Residency - University of Louisville in Louisville, KY  
Pediatric Fellowship - Wayne State University in Detroit, MI

Dr. Cassady is a Clinical Assistant Professor of Ophthalmology at The Ohio State University College of Medicine and is a member of the Medical Staff at Nationwide Children's Hospital.

Upon seeing many patients in her practice suffering from the same eye conditions, Dr. Cassady expanded her clinical interests to include strabismus, a condition in which the eyes are not properly aligned with each other, amblyopia, also known as lazy eye, and retinopathy of prematurity (ROP), an eye disease that affects prematurely-born babies.

Additionally, Dr. Cassady is a member of the Pediatric Eye Disease Investigator Group and has been involved in numerous publications. These publications include, "Balloon Catheter Dilation and Nasolacrimal Duct Intubation for Treatment of Nasolacrimal Duck Obstruction After Failed Probing" and "Central corneal thickness in children".
Dr. Cebulla is a dedicated physician and assistant professor with a passion for pushing the boundaries of medicine. In the clinic, she provides state-of-the-art retinal and ocular oncology care for patients. As a faculty member, she staffs residents, both inpatient and outpatient cases, and performs surgeries for the residents and fellows.

Dr. Cebulla is very active in clinical trial recruitment and study interventions. She also directs the department’s Retina Research Laboratory and, along with Dr. John Christoforidis, was able to obtain a shared departmental procedure room in Wiseman Hall Laboratory. Her research in ocular melanoma and retinal detachments delves into the mechanisms behind these serious ocular conditions and promises to bring about earlier diagnosis, more targeted treatment methods, and fewer side-effects.

Dr. Castellano is a faculty member with an eye on the future. His commitment to education and love of technology has motivated him to develop a web-based teaching program called “StudyAide for Ophthalmology”. StudyAide will allow students from anywhere in the world to have access to the knowledge and expertise of Ohio State faculty. Dr. Castellano is in the process of making “StudyAide” available to the public.

Dr. Castellano is still very active clinically and performs surgeries two days a week, both at the Eye & Ear Institute and Dublin offices. He continues to refine LASIK nomograms to further improve refractive outcomes as compared to national data. He plans to place the nomograms and outcomes analysis tools online for other surgeons to use.

Dr. Castellano also staffs resident surgeries at the Columbus VA, presents lectures to area physicians and medical students, and is actively involved on the Residency Selection Committee.

Dr. Cebulla is a dedicated physician and assistant professor with a passion for pushing the boundaries of medicine. In the clinic, she provides state-of-the-art retinal and ocular oncology care for patients. As a faculty member, she staffs residents, both inpatient and outpatient cases, and performs surgeries for the residents and fellows.

Dr. Cebulla is very active in clinical trial recruitment and study interventions. She also directs the department’s Retina Research Laboratory and, along with Dr. John Christoforidis, was able to obtain a shared departmental procedure room in Wiseman Hall Laboratory. Her research in ocular melanoma and retinal detachments delves into the mechanisms behind these serious ocular conditions and promises to bring about earlier diagnosis, more targeted treatment methods, and fewer side-effects.
SUSIE CHANG, MD

ASSISTANT PROFESSOR
RETINA DIVISION

ScB - Brown University in Providence, RI
Predoctoral Research Fellowship - The National Human Genome Research Institute in Bethesda, MD
MD - The Ohio State University in Columbus, OH
Residency - The Cleveland Clinic, Cole Eye Institute in Cleveland, OH
Retina Fellowship - Massachusetts Eye & Ear Infirmary in Boston, MA

Dr. Chang is a model of dedication to both her patients and to her students. Whether it is teaching, seeing patients, or conducting clinical trial research, she devotes all of her energy and expertise to the task. She is very involved in educating students at various levels in several specialties. In addition to didactics, she staffs several resident clinics and resident surgical cases.

Dr. Chang enjoys her involvement in clinical research since it allows her to offer her patients the latest advances. She has been a co-investigator in several trials evaluating new retinal treatment options, often in the last stage before becoming standard of care.

Recognizing the need for collaboration, Dr. Chang volunteered to act as the Ophthalmology Consultant of the Lupus and Vasculitis Clinic, a multidisciplinary service at OSU. She has also established the Clinical Visual Electrophysiology service which offers clinicians the ability to determine whether a patient’s visual pathway is affected by ocular pathology.

JOHN CHRISTOFORIDIS, MD

ASSISTANT PROFESSOR
RETINA DIVISION

BA - The Ohio State University in Columbus, OH
MD - The Ohio State University in Columbus, OH
Residency - Ophthalmology, Maryland General Hospital in Baltimore, MD
Research Fellowship - NIH/NEI, Ophthalmic Genetics & Clinical Services Branch in Bethesda, MD
Retina Research Fellowship - Massachusetts Eye and Ear Infirmary in Boston, MA
Retina Clinical Fellowship - Massachusetts Eye and Ear Infirmary in Boston, MA

Dr. Christoforidis is a full-time clinician and surgeon in the department and has exceeded all of the surgical benchmarks established for retinal surgery. Dr. Christoforidis also serves as retina fellowship program director, supervises residents and medical students in the clinic, lectures to the residents, and serves on the Residency Selection Committee.

Dr. Christoforidis served as the Principal Investigator in six laboratory-based projects in 2011-12. In the past two years, he has published 2 book chapters, 20 journal articles, and 25 peer reviewed abstracts. He is a member of the Retina Society, ARVO, and the American Academy of Ophthalmology.
MARCCRIDEN, MD

ASSISTANT PROFESSOR - CLINICAL
NEURO-OPHTHALMOLOGY & OCULOPLASTICS DIVISIONS

BS - Tufts University, College of Liberal Arts and Sciences, Medford, MA
MD - Jefferson Medical College in Philadelphia, PA
Residency - Case Western Reserve University in Cleveland, OH
Neuro-Ophthalmology Fellowship - The Ohio State University in Columbus, OH

Dr. Criden recently returned to the Havener Eye Institute, after spending four years at the University of Texas at Houston as the Division Director of both Neuro-Ophthalmology and Oculoplastics & Reconstructive Surgery. His busy practice sees patients with a wide variety of Neuro-Ophthalmic and Oculoplastic conditions. He has strong interests in ocular and facial trauma, oncology, and reconstructive surgery.

In research, Dr. Criden’s interests include intracranial hypertension, giant cell arteritis and orbital tumors. He is a member of the NORDIC trial for intracranial hypertension and is also involved in the China Eye Project, an international collaboration developing artificial vision.

Soon after the Haitian earthquake, he visited twice to offer medical relief and surgical care to adults and children affected by the tragic event.

FREDERICK DAVIDORF, MD

FACULTY EMERITUS
RETINA DIVISION

BS - The Ohio State University in Columbus, OH
MD - The Ohio State University in Columbus, OH
Residency - The Ohio State University in Columbus, OH
Retina Fellowship - Massachusetts Eye and Ear Infirmary in Boston, MA

Dr. Davidorf is a well-recognized expert in the field of ophthalmology, especially for his work in ocular melanoma. He is a respected leader and accomplished in all three department mission areas: Education, Research, and Clinical Care. He has been on faculty at The Ohio State University for over 40 years and is beloved by patients and students, residents, and fellows for his extensive knowledge and easy-going manner.

During his tenure as director of the retina division, Dr. Davidorf established a national reputation for both patient care and research, participating in scores of clinical trials. He is known as a pioneer in the conservative management of ocular melanoma and introduced brachytherapy as an alternative to enucleation in the US. He was instrumental in establishing the OSU Ocular Melanoma Study Group, a multidisciplinary team focused on improving the prognosis for cancer patients. Dr. Davidorf has published over 200 journal articles, authored 2 textbooks and numerous book chapters. He is an outstanding teacher, talented vitreoretinal surgeon, and dedicated researcher.
GLORIA FLEMING, MD

ASSISTANT PROFESSOR - CLINICAL
GLAUCOMA DIVISION

BS - Cornell University in Ithaca, NY
MD - State University of New York Upstate Medical University in Syracuse, NY
Residency - Albert Einstein College of Medicine, Yeshiva University in New York, NY
Glaucoma Fellowship - State University of New York Downstate Medical Center in New York, NY

Dr. Fleming is a dynamic clinician and faculty member in the glaucoma division. Her energy and enthusiasm for the future keeps her actively involved in the clinical and surgical training of residents and fellows in glaucoma. She also precepts and serves as a mentor to medical students interested in Ophthalmology. An advocate for patient education, she serves as a Councilor to the Glaucoma Research Foundation.

Currently, Dr. Fleming is the principal investigator for a protocol on investigating new mechanisms for optic nerve damage in glaucoma and is also a co-investigator for a clinical trial evaluating the effect of prostaglandins on the biomedical properties of the cornea which she presented at the American Glaucoma Society annual meeting.

Dr. Fleming is an avid volunteer for multiple community service outreach organizations including The Second Annual Global Diabetes Summit-Community Outreach Extension, The Links, Inc, Columbus Chapter-Health and Human Services Committee and Vineyard Columbus, and the Free Medical Clinic as an eye care volunteer.

RICHARD GOLDEN, MD

CLINICAL ASSISTANT PROFESSOR
PEDIATRIC DIVISION

BS - Arizona State University, Tempe, AZ
MD - The Ohio State University in Columbus, OH
Residency - University of Missouri in Kansas City, MO
Pediatric Fellowship - Nationwide Children’s Hospital in Columbus, OH

Dr. Golden is a Clinical Assistant Professor of Ophthalmology at The Ohio State University and currently serves on the President of the Central Ohio Pediatric Society. As a member of both the faculty at The Ohio State University and the staff of Nationwide Children’s Hospital, Dr. Golden is committed to both research and the education of future physicians.

Dr. Golden has a very active clinical practice and sees patients at multiple locations. He primarily treats patients with strabismus, amblyopia, pediatric cataracts and retinopathy of prematurity (ROP).

Dr. Golden has recently performed clinical research in a new and innovative treatment for orbital dermoid cysts. A dermoid is an overgrowth of normal, non-cancerous tissue in an abnormal location. An orbital dermoid is typically found in association with the bones of the eye socket.
DEBORAH GRZYBOWSKI, PHD

RESEARCH ASSISTANT PROFESSOR
RESEARCH DIVISION

Chemical Engineering BS - The Ohio State University in Columbus, OH
Chemical Engineering MS - The Ohio State University in Columbus, OH
Biomedical Engineering PHD - The Ohio State University in Columbus, OH
Post-Doctoral Fellowship - Biomedical Engineering, The Ohio State University in Columbus, OH

Dr. Grzybowski is a keen scientific strategist who applies the principles honed from her former engineering career to her medical research. She brings more than a decade of experience in clinical studies, education, and ophthalmic and cardiovascular research, including leading a translational research program focused on novel pharmaceutical development for intracranial pressure regulation.

Dr. Grzybowski’s multi-faceted role in the leadership of the Ohio Lions Eye Research Facility includes collaboration with faculty on the management of research programs and instruction of undergraduate/graduate students, medical students, and residents. She leverages her expert knowledge of research principles and good clinical practices to establish and maintain the operating policies of a shared cell/tissue culture laboratory.

Dr. Grzybowski instructs many students from undergraduates to post-doctoral students in design, testing, fabrication, project management, budgeting, and written/oral presentation skills.

ANDREW HENDERSHOT, MD

ASSISTANT PROFESSOR - CLINICAL
ANTERIOR SEGMENT DIVISION

BA - Ohio Wesleyan University in Delaware, OH
MD - The Ohio State University in Columbus, OH
Residency - The Ohio State University in Columbus, OH
Cornea & External Disease Fellowship - The Ohio State University in Columbus, OH

Dr. Hendershot is an enthusiastic faculty member and physician. He recently expanded his clinical care area to include Bucyrus, Ohio where he provides corneal consultation and corneal and cataract surgery.

In research, Dr. Hendershot continues to be very active. Currently, he is collaborating with the department of neurology on a study of patients with partial seizures taking Pregabalin. His other research interests include corneal collagen cross linking, astigmatism after cataract surgery, and the effects of deep trendelenburg positioning on intraocular pressure.

Dr. Hendershot has a busy clinical practice, but always has time for students and residents. He has accepted the position of Ophthalmology Residency Assistant Program Director. He gives resident and continuing education lectures and plans to expand these talks to also cover the Bucyrus, Ohio area.
DAVID HIRSH, MD

ASSISTANT PROFESSOR - CLINICAL
NEURO-OPHTHALMOLOGY DIVISION

BS - University of Pennsylvania in Philadelphia, PA
MD - Albert Einstein College of Medicine in New York, NY
Neurology Residency - Stony Brook University on Long Island in New York, NY
Ophthalmology Residency - Henry Ford Hospital in Detroit, MI
Neuro-Ophthalmology Fellowship - University of Michigan in Ann Arbor, MI
Neuro-Ophthalmology Fellowship - Henry Ford Hospital in Detroit, MI

Dr. Hirsh teaches the annual ophthalmology residents, and the annual neurology residents, lecture series on neuro-ophthalmology.

In 2013, Dr. Hirsh will begin giving an annual medical students lecture on neuro-ophthalmology for their revised curriculum.

Dr. Hirsh already gives an annual lecture to ophthalmology technicians on neuro-ophthalmic topics.

SHELLEY GUPTA JAIN, MD

ASSISTANT PROFESSOR
GLAUCOMA DIVISION

BS - University of Akron in Akron, OH
MD - Northeastern Ohio Universities College of Medicine in Rootstown, OH
Residency - University of Alabama at Birmingham in Birmingham, AL
Glaucoma Fellowship - Wills Eye Institute, Philadelphia, PA

Dr. Jain is a favorite among patients both for her soft-spoken, energetic manner and her expertise. She provides outstanding patient care in both the clinic and operating room, as well as, 24-hour on-call emergency glaucoma service coverage. She also volunteers regularly at the Physicians Free Clinic at The Ohio State University.

Dr. Jain is thrilled to be a part of the team educating future physicians. She frequently staffs the residents clinics at the Columbus and Dayton VA Medical Centers, the Cramblett Inmate Clinic, and OSU Emergency Department. In the operating room, she demonstrates, supervises, and provides feedback to the residents during cataract and glaucoma surgery. She assists in writing questions and proctoring the resident mock oral examination. In addition, she has recently co-authored several book chapters in the field of Glaucoma.

Dr. Jain is very interested in creating more targeted therapy for patients with glaucoma and is the principal investigator for a clinical trial on prostaglandins.
JULIE LANGE, MD

CLINICAL ASSISTANT PROFESSOR
PEDIATRIC OPHTHALMOLOGY DIVISION

BA - Ohio Wesleyan University in Delaware, OH
MD - The Ohio State University in Columbus, OH
Residency - The Ohio State University in Columbus, OH
Pediatric Fellowship - Eye Consultants of Atlanta in Atlanta, GA

Upon completing her training, Dr. Lange accepted the invitation to return to Columbus and join the physicians of Pediatric Ophthalmology Associates. Dr. Lange is a Clinical Assistant Professor of Ophthalmology at The Ohio State University and a member of the Medical Staff at Nationwide Children’s Hospital.

Dr. Lange is very interested in all aspects of pediatric eye care but has special interest in amblyopia, strabismus, pediatric cataracts and low vision. She also enjoys working with other departments as a team for patients with multidisciplinary concerns.

L. CAROL LAXSON, MD, PHD

ASSISTANT PROFESSOR - CLINICAL RETINA DIVISION

BS - Bob Jones University, Greenville, SC
Anatomy PHD - The Ohio State University in Columbus OH
MD - The Ohio State University in Columbus, OH
Residency - The Ohio State University in Columbus, OH
Retina Fellowship - The Ohio State University, Columbus, OH

Dr. Laxson is an assistant professor who specializes in vitreoretinal conditions. Her areas of interest include diabetic retinopathy, diabetic macular edema, age-related macular degeneration, and retinal vascular diseases. She maintains an active clinic in medical retina practice at our main location.

Dr. Laxson serves as the Columbus VA Clinic Director and is very involved in teaching residents at the Columbus VA clinic. She also mentors residents and fellows.

Dr. Laxson serves on the OSU Office of Responsible Research’s Institutional Review Board (IRB), where she evaluates all research projects involving human subjects. She is also involved in biomechanical research as a co-investigator in an adaptive optics project.
Dr. Li established the new ophthalmic optics lab quickly after joining the department. The lab has both confocal and OCT imaging systems, three laser systems and other valuable equipment. He is also working to develop adaptive liquid crystal lens and liquid lens. In the lab, Dr. Li supervises two graduate students and four postdoctoral researchers. He plans to form a collaborative team of at least eight people within the year.

Dr. Li served as the Division Chair of Optical Society of America (OSA), as the General Chair of the OSA Topical Meeting - Bio Optics: Design and Applications, and as a subcommittee member of Frontiers in Optics at the OSA Annual Meeting. He also participates on the admission committee of the ECE graduate program, the personnel committee member of ElectroScience Laboratory, and is the frequent reviewer for many journals including Optics Letters, Optics Express, Applied Optics, Biomedical Optics Express, and Investigative Ophthalmology & Visual Science.

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Dr. Lembach is currently professor emeritus of Ophthalmology and is active in clinical practice. His clinical interest is cataracts and corneal surgery. He has been a member of the Department for over 35 years. Dr. Lembach’s research interests include extended-wear contact lens and refractive surgery. He is also an investigator for the corneal crosslinking studies. His special interest has been in eye banking. He has also served as a consultant to industry for many companies including Bausch & Lomb, Chiron, CooperVision, Dow Corning, and 3M Vision Care.

Dr. Lembach participates in several professional society memberships such as Contact Lens Association of Ophthalmologists and is a past president. He has also received the Senior Teaching Award for the American Academy of Ophthalmology. He is an elected member of the Cornea Society. Currently he is the Medical Director of the Central Ohio Lions Eye Bank. He has also received the “Best Doctors in America” award every year since it was established.

Dr. Li established the new ophthalmic optics lab quickly after joining the department. The lab has both confocal and OCT imaging systems, three laser systems and other valuable equipment. He is also working to develop adaptive liquid crystal lens and liquid lens. In the lab, Dr. Li supervises two graduate students and four postdoctoral researchers. He plans to form a collaborative team of at least eight people within the year.

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MARY LOU MCGREGOR, MD

CLINICAL ASSOCIATE PROFESSOR
PEDIATRIC DIVISION

BS - Youngstown State University in Youngstown, OH
MD - Northeastern Ohio Medical University in Rootstown, OH
Residency: University Hospitals of Cleveland in Cleveland, OH
Pediatric Fellowship: Children’s Hospital in Columbus, OH
Pediatric Fellowship: Moorfields Eye Hospital in London, England

Mary Lou McGregor, MD, is a member of the Department of Ophthalmology at Nationwide Children’s Hospital and a Clinical Assistant Professor of Ophthalmology at The Ohio State University College of Medicine. She is the past president of the Medical Staff at Nationwide Children’s Hospital. Her clinical interests include pediatric cataracts, strabismus, low vision and retinopathy of prematurity (ROP).

She has been an investigator in several multicenter National Institutes of Health grants, including the CRYO-ROP study, STOP-ROP and the ETROP study. She is the director of the Multidisciplinary Low Vision Clinic at Nationwide Children’s Hospital. Dr. McGregor received the Makley-Battles Teaching Award in 1996. Dr. McGregor is a fellow of the American Academy of Ophthalmology and a member of the American Association for Pediatric Ophthalmology and Strabismus.

JUN LIU, PHD

ASSOCIATE PROFESSOR
RESEARCH DIVISION

BS - Zhejiang University in Hangzhou, China
MS - Zhejiang University in Hangzhou, China
PHD - The Ohio State University in Columbus, OH

Dr. Liu is an Associate Professor in the Department of Biomedical Engineering at The Ohio State University. She holds a courtesy faculty appointment at the OSU Havener Eye Institute and has closely collaborated with clinicians and medical researchers in pursuing a better understanding of biomechanics in ocular pathophysiology, particularly those related to glaucoma and keratoconus. Her lab applies quantitative ultrasound techniques to non-invasively characterize ocular biomechanics.

Dr. Liu is a member of the Association of Research in Vision and Ophthalmology, and the International Society for Eye Research. She has published extensively in the leading Ophthalmology journals including Investigative Ophthalmology and Visual Science, Journal of Cataract and Refractive Surgery, as well as Experimental Eye Research. She has served as a research mentor for residents, medical students, and graduate students. Her work has been funded by the National Institutes of Health, the American Health Assistant Foundation National Glaucoma Research, and the Columbus Foundation.
W. RANDALL MCLAUGHLIN, OD

ASSISTANT PROFESSOR - CLINICAL OPTOMETRY DIVISION

BS - The Ohio State University in Columbus, OH
OD - The Ohio State University in Columbus, OH
Contact Lens Residency - The Ohio State University in Columbus, OH
MS - The Ohio State University, Columbus OH

Dr. McLaughlin has provided ocular examinations and contact lens fittings on hundreds of patients in the past year alone. He serves as the primary visual consultant for the OSU Department of Athletics. He provides the athletes with general ocular examinations, contact lens fittings, sports vision screenings, and sports vision analysis. Dr. McLaughlin contributed to research into the intercollegiate usage and impact resistance of football helmet face shields. His work was published in the Journal of the American Optometric Association.

Along with Dr. Richard Lembach and Dr. Chantelle Mundy, Dr. McLaughlin is responsible for the contact lens education provided to the OSU Ophthalmology Residents. He also assists in the Resident Contact Lens Clinic. Dr. McLaughlin is also on the OSU Ophthalmology practice improvement committee to assist in the ophthalmic technician training programs.

Over the past twelve years, Dr. McLaughlin has represented our department at the prison clinic at the Corrections Medical Center, providing primary care to inmates at CMC and determining appropriate specialty referrals to our OSU Ophthalmology Department at the main hospital.

JULIE MEIER, MD

CLINICAL ASSISTANT PROFESSOR
COMPREHENSIVE DIVISION

BS - Capital University in Columbus, OH
MD - The Ohio State University in Columbus, OH
Residency - Vanderbilt University Medical Center in Nashville TN
Residency - Medical College of Wisconsin Affiliated Hospitals in Milwaukee, WI

Dr. Meier is an energetic faculty member who staffs resident clinics and surgeries at the Columbus and Dayton VA Hospitals. She also assisted with completion of peer reviews of both OSU faculty and rotating residents. She is the ophthalmology representative at the Columbus VA. She has volunteered at the department free clinic.

Dr. Meier initiated work on an application for the iPhone involving ophthalmology resident flash cards and review material. She may expand the service to also include an web-based mock exam geared toward residents and preparation for the ophthalmology board exam.
Since her appointment in December 2010, Dr. Mundy has had a very busy optometry clinic. She currently sees patients at our main and Dublin offices. In addition to a busy practice, Dr. Mundy is also dedicated to providing optometric services for underprivileged populations both internationally and locally. She gives back to the community by educating and providing vision screening to elementary school students and has made multiple trips to Nicaragua to help provide eye care to over 2,000 patients. Her enthusiasm for education led her to join academic medicine continues through her willingness to promote ocular medicine. Dr. Mundy has given multiple lectures on Ocular Motility and Pupil Evaluation to technicians preparing for the Certified Ophthalmic Technician Exam. Dr. Mundy is also a member of both the American Optometric Association and Ohio Optometric Association.

Dr. Melnyk has been instrumental in the opening of the new ophthalmology clinic at the CarePoint East Medical Center. He has been actively encouraging collaborations with the Departments of Endocrinology, Family Medicine, and General Internal Medicine. By covering the Ophthalmology referrals from the OSU East emergency department, Dr. Melnyk has helped the ophthalmology residents and fellows. He also trains Optometry students as an Attending in the Primary Care Clinic at the OSU College of Optometry Clinic, one day per week and coordinated the Ophthalmology/Optometry service at the CarePoint East Community Day this past year. Dr. Melnyk is increasing the visibility of the ophthalmology clinic with the other departments. He plans to increase the patient numbers and effective in-house treatments, and referrals to the Havener Eye Institute for those patient that need surgical, implantation or injection treatments. Those efforts will certainly be enhanced by the planned build-out of the clinic in a permanent space containing the full spectrum of imaging equipment.
DAVID ROGERS, MD

CLINICAL ASSISTANT PROFESSOR
PEDIATRIC DIVISION

BS - The Ohio State University, Columbus, Ohio
MD - Wright State University in Dayton, OH
Residency - Indiana University, Department of Ophthalmology in Indianapolis, IN
Pediatric Fellowship - Indiana University, Department of Ophthalmology in Indianapolis, IN

David L. Rogers, MD, is a member of the Department of Ophthalmology at Nationwide Children's Hospital. Dr. Rogers graduated from Wright State University School of Medicine in 2002. He then went on to complete his residency in ophthalmology and subsequently a fellowship in pediatric ophthalmology and adult strabismus at Indiana University School of Medicine.

His clinical interests include pediatric and adult strabismus, pediatric cataract, glaucoma and low vision. He has a strong interest in clinical research. His research interests include telemedicine for retinopathy of prematurity (ROP), pediatric vision screening, pediatric cataract, and outcomes in strabismus surgery.

GARY ROGERS, MD

CLINICAL PROFESSOR
PEDIATRIC DIVISION

BS - Bethany College in Bethany, WV
MD - The Ohio State University Medical Center in Columbus, OH
Residency - The Mount Sinai Hospital in New York, NY
Pediatric Fellowship - The Children's National Medical Center in Washington, DC

Gary L. Rogers, MD, is a member of the Department of Ophthalmology at Nationwide Children’s Hospital and a Clinical Professor of Ophthalmology at The Ohio State University College of Medicine. His clinical and research interests include pediatric and adult strabismus, fMRI, amblyopia and retinopathy of prematurity (ROP). Dr. Rogers has been the principal investigator for two multicenter National Institutes of Health grants, the CRYO-ROP study, and the ETROP study.

Dr. Rogers is the Chairman Emeritus of the Department of Pediatric Ophthalmology at Nationwide Children’s Hospital. He is a past President of Medical Staff at Nationwide Children’s Hospital and the Ohio Ophthalmological Society and currently serves as the Medical Editor for Pediatric Directions and Surgical Scenes. Dr. Rogers is a fellow of the American Academy of Ophthalmology and a member of the American Ophthalmological Society and American Association for Pediatric Ophthalmology and Strabismus. He has also been named one of the Best Doctors in America.
Dr. Sawchyn is an Assistant Professor of Ophthalmology specializing in the clinical and surgical care of patients with cataracts, ocular hypertension, and all forms of glaucoma. In addition to maintaining a busy practice, she serves as the assistant to the glaucoma division director and is actively involved in medical education. She staffs weekly glaucoma clinics for the residents in addition to supervising resident lasers, office procedures, and surgeries. Dr. Sawchyn also participates in the resident lecture series as well as resident board preparation. She has a number of medical students rotate through her practice throughout the year.

Dr. Sawchyn has contributed to several publications and is the lead author on multiple book chapters in the Wills Eye Institute 5-Minute Ophthalmology Consult text. She recently presented divisional research regarding the use of the dynamic contour tonometer in asymmetric glaucoma at the American Glaucoma Society’s annual meeting in New York, New York.
MICHAEL WELLS, MD

ASSISTANT PROFESSOR - CLINICAL RETINA DIVISION

BA - Physics, Rice University in Houston, TX
MD - Baylor College of Medicine in Houston, TX
Residency - University of North Carolina at Chapel Hill in Chapel Hill, NC
Retina Fellowship - The Ohio State University in Columbus, OH

Dr. Wells has had a very active clinic and surgical practice since joining the Havener Eye Institute. He regularly mentors medical students, residents, and fellows. His educational efforts extend to the resident clinics, the operating room, and formal lectures. He lectures to the residents and fellows covering not only topics on retinal disease and management, but also general surgical techniques.

Dr. Wells is a co-investigator on several clinical trials in retina. He is currently working with several residents on research. He is also a preceptor for the OSU College of Optometry Externship program and assists Optometry students in the clinic.

His passion for teaching and furthering the field of ophthalmology is only surpassed by his evident care and thorough treatment of his patients.

RONALD XU, PHD

ASSOCIATE PROFESSOR RESEARCH DIVISION

BS - University of Science and Technology of China in Hefei, China
Mechanical Engineering MS - State University of New York in Stony Brook, NY
Mechanical Engineering PHD - Massachusetts Institute of Technology in Cambridge, MA

Dr. Xu is a faculty researcher interested in medical device innovation, bio-instrumentation, multimodal imaging, and image-guided therapy. His work has major clinical applications, including cancer imaging and therapy, wound healing, and ocular drug delivery. He has led the development and validation of multiple handheld medical devices and multifunctional contrast agents for cancer detection and intraoperative imaging.

In 2010, he was profiled as one of ten best and brightest Central Ohioans in the Columbus CEO Magazine and was honored as one of two Superstars in the category of Research and Development. In 2011, he earned the TechColumbus Inventor of the Year Award.

Dr. Xu has conducted five clinical trials, published eleven patents, and authored more than 50 peer reviewed publications in the field.
It's 3 p.m. when Arthur McMurray leaves the house to go to a doctor's appointment. Twenty hours later he arrives at the OSU Havener Eye Institute in Dublin, Ohio. That's because Arthur lives in Indianapolis, Indiana and drives 175 miles to participate in a clinical trial. He cannot drive at night, so he stops halfway to stay overnight.

Ironically, the study that he participates in is called RIDE, but when he was enrolled in Indianapolis five years ago, he did not know what a long ride it would be.

“I first heard about the study when I had a cataract removed from my right eye,” said Arthur. “I had never been in a clinical trial before. I just hoped it would help me and other people.”

RIDE is a clinical trial that evaluates the use of Lucentis in patients with diabetes. Lucentis is an anti-VEGF medication that decreases the abnormal growth of blood vessels in the eye; a common complication of diabetes.

When the Indianapolis study site closed, Arthur had the opportunity to discontinue, but chose to commute to the Columbus site instead. It’s a long drive, but Arthur isn’t fazed. After a lifetime of driving semi-trucks, he’s used to the road. He says that it is worth it because of the expertise and care he receives here.

“He could have dropped out of the study,” said Alan Letson, MD, the RIDE Principal Investigator. “The fact that he is willing to drive 175 miles each way and stay overnight sometimes, makes him a very extraordinary patient.”

Arthur is one of the many patients who participate in ophthalmology clinical trials because they feel that they are getting the best care and helping out others at the same time.

“I think it’s great,” said Arthur. “I think they are helping me and I think that it helps a lot of other people. If someone asked me, I would recommend a study, especially with the doctors and people over here that are all so nice and are so good at their jobs.”

“We appreciate all our patients,” said Dr. Susie Chang, MD, “but, I really admire Arthur’s dedication and am humbled by the faith he puts in our care.”
For over a year, volunteers from The OSU Havener Eye Institute as well as community physicians have been helping to provide eye care to underprivileged Central Ohioans. The project was spearheaded by the Department Chairman, Thomas Mauger, MD and Columbus Physicians Free Clinic’s Katie Clark.

“I have helped at the Physicians Free Clinic off and on over the past 20 years,” said Dr. Mauger. “There is a tremendous need for basic eye services there for people who have absolutely no means to pay for them. As an extension of that, I saw the need for more advanced eye care for the severe problems that we were seeing.”

When Dr. Mauger first started working at the Columbus Physicians Free Clinic, they did not have any eye exam equipment. Over the years, they had been trying to get a lane of eye equipment, but everything that they had to be donated.

“One day Dr. Mauger showed up at the clinic, on a Monday evening, and said he wanted to donate the eye equipment,” said Katie. “We found a room that was long and narrow and had the equipment installed. It was wonderful.”

The eye exam room is a permanent fixture at the Columbus Free Clinic, but the demand quickly outgrew the space. “I asked the staff, residents, and faculty if they were willing to pitch in to help,” said Dr. Mauger. “I was overwhelmed and gratified by the positive response. Although, knowing these people, I was not surprised.”

“It is my hope,” continued Dr. Mauger, “that we are able to effectively rehabilitate the vision of many of these patients so that they will be able to get back into the work force and contribute to their families’ well-being.”
RESIDENTS

FIRST YEAR RESIDENTS (2011-14)
Lindsay Adam, MD
Megan Chambers, MD
Abbe Craven, MD
Sarah Escott, MD
Ellen Miller, MD
John Welling, MD

SECOND YEAR RESIDENTS (2010-13)
Kristen Burwick, MD
Sireesha Clark, MD
Honey Herce, MD
Jennifer Jaworski, MD
Rachel Reem, MD
William Terrell, MD

THIRD YEAR RESIDENTS (2009-12)
Dominic Buzzacco, MD
Adam Cloud, MD
Bryan Costin, MD
Irene Tung, MD
Leah Vaccarella, MD
Palak Wall, MD

FELLOWS

ANTERIOR SEGMENT FELLOW
Lena Chheda, MD

NEURO/PLASTICS FELLOW
Atif Collins, MD

RETINA SECOND YEAR FELLOW
Cedric Pratt, DO

RETINA FIRST YEAR FELLOW
Ahmad Tarabishy, MBBS

2012 EDUCATION AWARDS

Eli G. Alcorn and John B. Alcorn Prize in Ophthalmology
(annual medical student award of excellence)
Severin Pouly and Nhu-Y Dao

Makley-Battles Teaching Award
(awarded by the residents to a faculty member for excellence in teaching)
Paul A. Kurz, MD

Havener Eye Institute Fellow’s Teaching Award
(awarded by the residents to a fellow for excellence in teaching)
Lena V. Chheda, MD

Excellence in Teaching Award
(awarded annually by the College of Medicine in conjunction with Ophthalmology)
David K. Hirsh, MD

Annual Ophthalmology Research Symposium Award Winners
Residents Category:
1st Place: Sireesha A. Clark, MD
2nd Place: Sarah M. Escott, MD
3rd Place (tie): Lindsay E. Adam, MD and Jennifer M. Jaworski, MD

Graduate Student Category:
1st Place: Junhua Tang, MS

2012 GRADUATES

Palak Wall, MD matched at the Cleveland Clinic to complete a pediatric ophthalmology fellowship. Bryan Costin, MD, is headed to the Cleveland Clinic to complete an oculoplastic fellowships. Dominic Buzzacco, MD will remain in Columbus to complete a retina fellowship. Leah Vaccarella, MD will remain at the Havener Eye Institute to complete a fellowship in comprehensive ophthalmology. Adam Cloud, MD will complete a glaucoma fellowship at the Havener Eye Institute. Irene Tung, MD matched at Duke University to complete a pediatric ophthalmology fellowship.
The first annual Jacob Moses, MD Lectureship, which was held this past Spring, serves as a part of the biannual EyeRounds Series. The well-attended lecture was a tribute to both the past and future of ophthalmology. Named for the late Jacob Moses, MD, the evening event was begun with a short video describing the life of Dr. Moses and his impact in the field.

After the video, attendees heard from internationally renown Clinton D. McCord, Jr, MD. Dr. McCord is an oculoplastic specialist from Emory University’s Department of Ophthalmology. His lecture on the biomechanics of the eyelids & cheek revealed not only the latest oculoplastics technique but cutting-edge research that will change the future.

To view Dr. Moses’ video, log onto www.eye.osu.edu/give/recent/moses.
POST GRADUATE SYMPOSIUM:
DIABETES

This March marked the 55th Annual Postgraduate Symposium in Ophthalmology. The course directors for “Diabetes 2012,” Alan Letson, MD and Michael Wells, MD, welcomed speakers that are both world-renown and experts in the field of diabetes. The lecturers covered everything from current therapy to new developments to upcoming clinical trials that promise to transform the field over the next couple of years.

SPEAKERS INCLUDED:

Lloyd Aiello, MD
Harvard, Joslin Diabetes Center

Diana Do, MD
Wilmer Eye Institute at Johns Hopkins

Sander Dubovy, MD
Bascom Palmer Eye Institute

Steven Feldon, MD, MBA
University of Rochester

Seema Garg, MD, PhD
University of North Carolina

Quan Nguyen, MD
Wilmer Eye Institute at Johns Hopkins

Benjamin J. Frankfort, MD, PhD
Baylor, Cullen Eye Institute

Dara Schuster, MD
OSU Department of Endocrinology

Jennifer Sun, MD
Harvard, Joslin Diabetes Center
A news item should, if possible, convey some element of surprise. Unfortunately, few will be surprised to learn that Paul A. Weber, MD has been awarded the 2011 Lifetime Achievement Award from The Ohio State University, College of Medicine.

Dr. Weber joined the Faculty in 1978 and served as Chairman of the Department of Ophthalmology from 1988 until 2004. He has received numerous well-deserved teaching awards. He was the first recipient of the Makley-Battles Teaching Award and received the Pre-Clinical Teaching Award in 1993, 1994, 1996, and 1997 and the Outstanding Teaching Award in 1998. He was selected as the Pre-Clinical Professor of the Year in 1999 and 2000 and Professor of the Year in 2000. He was honored with an Excellence in Teaching Award for Ophthalmology in 2002. In 2003, he received the Medical Alumni Faculty Teaching Award and the Faculty Teaching Award.

From his gracious smile to his colorful bowties, Dr. Weber is the embodiment of a gentleman doctor. His teaching style is legendary and students are immediately put to ease by his calm demeanor and engaging personality. When we asked for a few words from colleagues and residents, the response was overwhelming.

“His enthusiasm for life, family, working, and teaching are infectious,” shared second-year resident Sireesha Clark, MD. “By merely being in his presence, you reflect upon yourself and find yourself asking, ‘How can I be a better person?’ He made me want to pursue ophthalmology, but what I admire and appreciate him for the most, is his strong character, which I can only hope to emulate one day.”

“Dr. Weber not only inspired me to pursue ophthalmology,” explained OSU ophthalmology alumni Amy Kopp, MD, “but he made me the Glaucoma specialist I am today. I am so thankful that Dr. Weber was involved in my training and that he was able to shape me into the doctor that I am today.”

“There is no person in the world like Dr. Weber,” stated third-year resident Adam Cloud, MD. “He is more than a mentor, more than a role model, more than an educator, more than a physician or ophthalmologist. He is everything that we strive to be. He reminds me of what medicine is all about. We are incredibly lucky to know him, to work with him, and to learn from him.”

“Paul Weber was one of the reasons I chose to come to OSU as a resident many years ago and a major reason I am on faculty today,” said Residency Program Director, Alan Letson, MD. “He is an icon of professionalism and quality in medical care and education. Most importantly, he has been a great friend.”

There are many more who would love to contribute a few words in honor of Dr. Weber, but there simply isn’t enough space. Their sentiments, however, can be represented best by Ophthalmology Chairman Thomas Mauger, MD.

“Dr. Weber is an outstanding educator of medical students, residents, and fellows. He is simply one of the best physicians and teachers that I have ever met. Congratulations on this amazing achievement!”

“Dr. Weber is an outstanding educator. He is simply one of the best physicians and teachers that I have ever met.”

Chairman, Thomas Mauger, MD
When former Air Force Secretary Ruby Grill found out that she was losing her vision to age-related macular degeneration (AMD), she was upset, but she was not going to let it hold her back. That kind of determination was the story of her life.

Born in 1927, and raised in Dayton, Ohio, Ruby was always an independent, intelligent person. She never married or drove a car, but she managed to get around with minimal reliance on others.

“She never wanted to be a burden to anyone,” said her lifelong friend and co-worker Cathy Bowman. “When folks did small favors for her, she rewarded them with a box of Esther Price candy.”

She was a dedicated civil service employee with a long career as a secretary at Wright-Patterson Air Force Base (pictured above) for over 40 years. She loved the City of Dayton and the Air Force, and was very proud of her country.

“She seldom watched TV, always listened to radio broadcast to stay current with events,” said Cathy. “She was a wonderful listener and companion to those she cared about. She had a keen sense of humor and had great stories of past and current times, as she was always aware of the most recent news.”

When she was diagnosed with AMD, Ruby was somewhat dispirited and upset about her continued weakening vision, but she was very impressed with Chairman, Thomas Mauger, MD and his genuine concern for patients.

In her will, Ms. Grill left several hundred thousand dollars to The OSU Havener Eye Institute to be used for eye disease research and treatment, macular degeneration in particular. She wanted to do her part to ensure that the disease that stole her vision would not affect another person.

“She had kind, blue eyes,” said Cathy. “She hated the fact that she was losing her vision, it really upset her. I’m sure her donation to OSU was in hopes of research to help make someone else’s life better.”


BUCKEYE BENEFACTORS

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Dr. Elson Craig*

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Dr. Hans Bredemeyer
Drs. Thomas Mauger & Carol Laxson
Dr. Alan & Susan Letson
Miriam Mikeseel
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James Weener
Lisa Westwater
Dr. Andrew Wherley
Thomas Williams
Dr. Jeffrey Wincko
Charles Winslow
George Wintringer

* Indicates deceased
Sally’s Vision Changed a Community

Sarah (Sally) Slack was born in 1917 in Zanesville, Ohio. She attended Lash High School and Muskingum College. When she graduated in 1939, she took a few extra classes at The Ohio State University, so she could become a teacher.

Sally taught at McKinley, McIntire, and Lincoln Elementary Schools in the Zanesville City School system. She also taught special reading education for students in the Zanesville City Schools and St. Thomas Elementary.

Many teachers decorate their classrooms to help engage their students, but Sally was like a walking classroom. Her colorful sweaters were a sight to be seen; matched only by her vibrant personality and generosity of spirit.

Sally was always giving, even if it was just a piece of fruit or candy that she happened to have on her at the time. Giving was a way of life for her.

When she started having trouble with her vision, she went to see Alan Letson, MD, a Zanesville native who practiced ophthalmology in Columbus.

“When I met Sally,” said Dr. Letson, “she was upset about the vision she was losing from AMD. We used to have long talks about the lack of treatment available for dry AMD. She was determined to change all of that.”

When Sally passed away at the age of 87, the majority of her estate was left to the direction of the Muskingum County Community Foundation to help fund research in macular degeneration.

Located in the Putnam Historic District of Zanesville, the Muskingum County Community Foundation is in its 27th year of operation, with millions of dollars of assets to manage for the benefit of Muskingum County and the greater central Ohio area. David Mitzel, Executive Director at the Muskingum County Community Foundation, met Sally when he was visiting his aunt in an assisted care facility.

“Sally was a character and a good character. She was a school teacher. She was used to dealing with young children. She was young at heart,” said Mitzel.

Sally loved animals, so David would bring his dog into the dining room for her. David was glad to bring a smile to her face because Sally had spent her life bringing happiness to everyone else.

It seems that Sally wasn’t finished. The gift Muskingum County Community Foundation received to establish the Sarah E. Slack Prevention of Blindness Fund was about $900,000. This fund will support research to find a cure for the leading causes of blindness, especially macular degeneration.

In macular degeneration, the light-sensing cells of the macula mysteriously malfunction and may over time cease to work. AMD gradually destroys sharp, central vision.

“When Sally visited me, she discussed in detail, what she wanted her money to support,” said Dr. Letson. “When I look at what we have done here at Ohio State and where we are today compared to six years ago, it’s pretty dramatic. A lot of it is due to Sally and the Muskingum County Community Foundation.”

Sally’s donation helped acquire state-of-the-art retinal imaging to help with early diagnosis of AMD and to allow Ohio State to participate in national AMD research. The bequest also helped fund basic research into nanotechnology that could lead to a new method of AMD drug delivery.

“Each success magnifies the impact of Sally’s donation not only in Muskingum County, but throughout Central Ohio. We are very grateful for Sally Slack’s forward thinking and generosity in improving the future for all patients with AMD.”
“Decisive experiences? Yes, I have had several,” said Hans Bredemeyer, MD. “For instance, when I buried myself in the trash dump of the Russian prisoner of war camp in Czechoslovakia where I had been held captive for two years following the end of World War II.

“It was after the evening count. The dump lay next to a camp barrack’s wall which was lined with barbed wire. There was a guard, but when he wasn’t looking, I used the barbed wire to climb onto the roof of the barracks while carrying my boots around my neck. I jumped from the roof, over the barbed wire, into the neighboring potato field. I lay flat on my belly until I was sure nobody was shooting at me. Then, I slowly crawled away.

“I stole a bicycle in the next village and for the next three nights I pedaled south to Germany, spending the daylight hours sleeping in forests—hidden under leaves. Sometime during the third night, I crossed into Austria, and eight weeks later I was once again in Germany. That was the beginning of the rest of my life.

“After my return to Germany, I studied medicine and while in medical school I decided to become an ophthalmologist. In those years there were very few training slots for medical graduates; I was quite lucky to be offered a residency in pathology at Hamburg University which I accepted with the intent of switching to ophthalmology whenever the possibility would present itself.

“While in Hamburg, I happened to read about residency positions in US hospitals that paid $100/month, a royal salary compared to the unpaid residencies in Germany during those first post-war years. I sent out several applications and was accepted for a residency in pathology in Tulsa, Oklahoma.

“I arrived there in 1954 with my wife Antonie “Toni,” whom I had met at medical school. Although I enjoyed working in pathology, I still wanted to be an ophthalmologist. Once in Oklahoma, I continued to write letters to various universities across the United States trying for a residency slot in ophthalmology.

“Happily, The Ohio State University accepted me and my wife, and I relocated to Ohio with our newly born daughter in 1955. I became one of Dr. Havener’s first residents after he took over as chairman.

“My status as an active resident in the program didn’t last long, however. Just months after arriving in Columbus, I was diagnosed with pulmonary tuberculosis and spent half of a year quarantined at OSU Hospital.

“Dr. Havener, knowing that I was in a difficult situation, reacted compassionately. During a grand rounds meeting he informed the attending ophthalmologists of my predicament, and together they promised to be there for me if I needed help, financially and otherwise.

He visited me as often as he was allowed during my quarantine, and after my discharge he took me back into the program. I will always remember the kindness and help that Dr. Havener and my colleagues showed my family and me during that time.

“The end of my residency coincided with the expiration of the exchange visitor visa which had allowed me to study in the US. I was required to return to Germany for two years before re-entering the United States on a permanent immigration visa in 1960.

“I returned to Ohio and became an Assistant Professor at OSU. I worked full-time in the Department for seven years, specializing in strabismus.

“In 1967, I joined the private practice of Dr. Martin Cook in Springfield, Ohio. I still wanted to continue the work I was doing with students and residents at OSU, so I continued my association with the Department on a part-time basis until my retirement in 1988.

“It was very satisfying and rewarding to take part in the training of future ophthalmologists during my many years at OSU.

“When I learned that the Eye Department was looking to acquire an EYESi surgical simulator I thought it was an ideal opportunity to, once again, contribute to the training of future generations of outstanding ophthalmologists.”

We are honored that Dr. Bredemeyer chose to share his fascinating life with us. He began in Germany, detoured to Czechoslovakia, and finally found his true calling at The Ohio State University. We are also grateful for Dr. Bredemeyer’s generous donation towards the purchase of the EYESi surgical simulator for our residents. We are proud of our alumni and especially those who choose to pay forward like Hans Bredemeyer.
The Glaucoma Division has continued to expand its clinical activities, be actively involved in translational research and play a key role in the education mission of the department and medical center.

The addition this past year of Dr. Shelly Jain has allowed us to continue to expand our clinical volume. Patient visits to the Glaucoma Division have increased from 7,594 to 9,504 over the past year, a 25% increase. This represents a nearly 60% increase in patient volume over the past three years. The division performed 605 surgeries/procedures at the medical center this past year. In addition, the Glaucoma Division's clinical activity at the Columbus VA and the Dayton VA has expanded. This has provided both enhanced care of our veterans and expanded educational opportunities for our ophthalmology residents and fellows.

Collaboration with our biomedical faculty, including Drs. Cynthia Roberts and Jun Liu, has resulted in a large number of on-going translation research projects.

In the education arena, Dr. Weber was awarded the Lifetime Achievement Award by the Ohio State University Medical Center for “tireless contributions to the OSU medical education program.” The ophthalmology module taught to the second year medical students was once again one of the highest rated modules based on medical student evaluations.

The Glaucoma Division is proud of our contributions to all the missions of the College of Medicine, Ohio State University Medical Center and the community.

The Anterior Segment Division is committed to excellence in the department’s core areas of clinical care, teaching, research, and service. This year’s fellow, Dr. Lena Chheda, joined the Franciscan Hammond Clinic in Munster, Indiana.

The Anterior Segment faculty continues to play an integral part in the education of fellows, residents, and medical. We staffed 588 resident cataract surgeries at the Columbus VA last year. Our faculty also began staffing resident clinics and surgeries at the Dayton VA this past year.

Our division’s faculty mentored numerous resident and fellow research projects this past year including a comparison of anterior and posterior corneal curvatures and refractive outcomes and assessment of interuser variability in confocal interpretation of atypical keratitis. Dr. Chheda presented her research on the use of gamma-irradiated cornea tissue with the Boston type 1 keratoprosthesis at both the ASCRS meeting and the K-Pro study group meeting.

Our division has also been involved with the Cornea Preservation Time Study trial and a corneal crosslinking clinical trial.

Members of the Anterior Segment Division again travelled to Ghana and Nicaragua this past year. Dr. Mauger along with Dr. Chheda and Dr. Rachel Reem, a second year resident, performed cataract surgeries in the village of Akima Akosa, Ghana. Dr. Mauger and Dr. Kuennen made their fourth trip to Managua, Nicaragua to perform corneal transplants.
The Neuro-ophthalmology service welcomed Dr. Marc Criden, who spent five years at the University of Texas at Houston and brings extensive experience in ocular and orbital trauma. He is fellowship trained in both neuro-ophthalmology and oculoplastics. Dr. Criden and Dr. David Hirsh organize the resident lecture series as well as medical student teaching in neuro-ophthalmology.

The division is actively enrolling patients into the Idiopathic Intracranial Hypertension (IIH) Treatment Trial. This multi-center study hopes to determine if weight reduction and low sodium diet alone or combined with acetazolamide will benefit patients with IIH. The National Eye Institute study was proposed by Neuro-Ophthalmology Research Disease Investigator Consortium (NORDIC). There are currently three other clinical trials going on in the division studying pharmaceutical interventions in patients with multiple sclerosis and Huntington’s Disease.

Dr. Steven Katz was a reviewer for the journal Eye, a grant reviewer for the Columbus Foundation, a scientific advisor to the Intracranial Hypertension Research Foundation and an advisor to the Chief of Space Medicine at NASA Johnson Space Center.

Dr. Jean Brian Kassem (Tulane University) began a 2-year Fellowship in Neuro-ophthalmology, Orbital Disease and Oculoplastics in July 2012 and has been active in Resident teaching and management of incoming orbital trauma and complex hospital consultations. We have accepted Dr. Ami Shah (University of Arizona) for July 2013 as we expand our commitment to Fellowship training.

The Oculoplastic division oversees the hospital ward and emergency room consult service. We are active members of the Comprehensive Skull Base Center at the James Cancer Hospital. The group is dedicated to advancing the care of patients with complex head and neck cancer. With more aggressive resections, the multidisciplinary reconstruction of these patients is increasingly challenging. We are involved in the planning and teaching of the popular biannual Skull Base Surgery course.

In the coming year, we will hold the first cadaver dissection lab for the residents to work on surgical approaches to the eyelid and orbit. Non-geographic faculty Drs. Ken Cahill, John Burns and Jill Foster will participate in the course administration and continue to contribute significantly to the resident lecture series and to patient care. Dr. Foster is currently President of the American Society of Ophthalmic Plastic and Reconstructive Surgery.

Drs. Katz and Criden continue work on the China Eye Project, a collaborative effort with Professor Qishi Ren, Chairman of the Department of Biomedical Engineering at Peking University in Beijing. In August, 2012 they were visiting professors at Shanghai Jiao Tong University where they gave lectures to the ophthalmology residents and further developed the Shanghai orbitotomy, a new surgical approach to the lateral optic nerve for implantation of a microelectrode. The goal of the project is direct optic nerve stimulation to create artificial vision in patients with retinitis pigmentosa. The division is also currently participating in three clinical trials assessing for ocular toxicity with new chemotherapeutic agents.
During the past academic year, much has happened in the pediatric division based at Nationwide Children's Hospital (NCH). Upon completion of her pediatric ophthalmology fellowship at NCH, we were pleased to have former OSU resident Dr. Cate Olson Jordan join the faculty. Construction has begun on the new resident ophthalmology clinic at NCH. The clinic had over 9,000 patient visits. The surgery volume continues to be robust, with over 30% of all procedures performed in the NCH ambulatory surgical care unit performed by ophthalmology.

Our research activity has continued to blossom, with 20 major publications and over $377,754 for research during the past year. We are actively involved in multiple NIH funded studies through Pediatric Eye Disease Investigator Group (PEDIG). Studying nystagmus with functional MRI (fMRI) continues to be an interest and we are pleased of the support from the Ohio Lions Eye Research Foundation.

Nationwide Children's Hospital has several subspecialty clinics within the general ophthalmology clinic. The Low Vision Clinic assesses children so that an educational plan can be made and recommendations for low vision aids. Oculoplastics Clinic is another busy subspecialty. The newest subspecialty clinic sees children with pseudotumor cerebri.

Technology upgrades are continuously being made. Equipment in the electrophysiology lab was upgraded to provide the highest quality of testing for children as well as adults. An OCT machine has since been added to the eye clinic, which will enhance patient care and open up new avenues for research.

The Division of Ophthalmic Pathology in the Department of Ophthalmology provides support to faculty, residents, and students when preparing presentations, publications, and for research projects. The Division has an extensive archive of pathology cases and microscopic and photographic equipment available to support these activities.

All ophthalmic pathology specimens from our department are processed in The Division of Neuropathology under the supervision of Abhik Ray Chaudhury, MD. Weekly review sessions are conducted and included faculty, residents, and students from both departments. A joint report for each case was generated and filed.

For the academic Fiscal Year July 1, 2011 to June 30, 2012, 413 cases were examined, reported, and filed in the division archives of ophthalmic pathology.

- Eye, Gross Only, foreign body/medical device tissue submitted: 19
- Conjunctiva/skin, tumor: 3
- Eye, bx with IF: 4
- Conjunctiva, Immunofluorescence: 5
- Conjunctiva/skin, Not tumor: 8
- Cornea whole: 20
- Neuropath, Eye, enucleation/evisceration: 27
- Skin bx, eye: 29
- Neuropath Temporal Artery, Bx: 49
- Neuropath, eye, conjunctiva: 61
- Neuropath, eye NOS: 63
- Neuropath, Eye, cornea: 125

OPHTHALMIC PATHOLOGY

PEDIATRICS
REFRACTIVE SURGERY

The Refractive Surgery Division continues to produce very successful visual and surgical outcomes from utilizing the combination of both the IntraLase femtosecond (FS) laser and the ALLEGRETTO WAVE® excimer laser platform from Alcon. The IntraLase FS laser creates a very thin, bladeless corneal flap that has proved beneficial in LASIK treatments by preserving more corneal tissue.

The ALLEGRETTO WAVE® laser uses Wavefront- Optimized software to enhance each treatment to the patient’s own unique corneal curvature. Using these lasers, our patients are able to get a truly individualized treatment which in turn is providing excellent vision acuity and quality results. Fairly high degrees of myopia, hyperopia and astigmatism are currently treatable as well as monovision/blended vision correction for patients over 40 with presbyopia.

We are working with the educational departments of the laser manufacturers to provide surgical experience for second and third-year residents, as well as anterior segment fellows in performing both femtosecond and Excimer laser surgeries. Another round of didactic and hands-on training will take place in October.

The Refractive Surgery Division is also successfully implanting both toric and multifocal intraocular lenses. The toric intraocular lenses allow patients to obtain astigmatism correction during cataract surgery and the multifocal lenses are used to correct both distance and near vision. We continue to look forward to new advances in intraocular contact lenses for patients with very high degrees of myopia.

RETINA

Patient care activity on the Retina Service continued to grow this past year with a 21% increase in patient visits to 10,430. Over 15,000 imaging procedures were performed for the Retina Division and the department. The surgical retina team performed 618 major vitreo-retinal procedures. Over 2162 intravitreal injections were given for wet AMD and other causes of CNV and macular edema.

This past year was also another strong year for research in the retina division. Led by research manager, Laura Sladoje and clinical coordinators Jill Salerno and Brittany Stine, the division was actively involved in clinical trials sponsored by National Eye Institute/ National Institutes of Health (AREDS 2, CATT, ACCORDION, DRCR.net (Protocol A-J and N), and multiple industry sponsored trials involving areas of wet AMD and diabetic macular edema, including the RIDE study which led to FDA approval of ranibizumab for treatment of diabetic macular edema.

Collaboration with other departments and schools across the campus has increased, resulting in such projects as the work between the retina division and biomedical engineering in the development of nanoparticle drug delivery systems for ranibizumab and work with other PIs in the James Cancer Institute and Hematology departments. Dr. Cebulla continued her grant funded work in retinal detachments and PVR. Dr. Abdel-Rahman and Dr. Davidorf continued their research in ocular melanoma molecular genetics. Dr. Christoforidis has been working in conjunction with pharmacology to develop drug labeling methods for basic science research.

Scott Savage and his team of ophthalmic imagers, Steven Shelley and PJ Fish, contributed to imaging for all the Clinical Trial work in the Retina Division as well as other trials performed by other departmental divisions. The ERG lab was reactivated in the spring of 2012 and is managed by Dr. Susie Chang.

The division maintained its post-graduate teaching activity by supporting two vitreo-retinal surgical retinal fellows: Cedric Pratt, who graduated in June and is now in a Retina subspecialty practice in Little Rock, Arkansas, and Ahmad Tarabishy who completed his residency training at The Cole Eye Institute/Cleveland Clinic. Resident teaching included working with residents in their first and second year retina rotations, weekly retina lectures and imaging conferences with residents and fellows. The retina faculty also served as preceptors for resident research projects and was active in the medical student Curriculum of the College of Medicine.
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<td>Roberts (PI), Fleming Small, Weber</td>
<td>Interaction of ocular pulse amplitude (OPA) and the difference between intracranial pressure (ICP) and intraocular pressure (IOP) as a mechanism for glaucomatous damage</td>
<td>Columbus Foundation</td>
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**OSU MEDICAL CENTER COLLABORATIVE STUDIES**

<table>
<thead>
<tr>
<th>PI / Faculty</th>
<th>Project (Full Title)</th>
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<tr>
<td>Olencki (PI), Cebulla</td>
<td>A Phase III Randomized Open Label Study Comparing GSK 1120212 to chemotherapy in patients with advanced or Metastatic BRAF V600E/K Mutation-Positive Melanoma</td>
<td>Cancer / GSK</td>
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<tr>
<td>Olencki (PI), Davidorf</td>
<td>A Phase III Randomized Study of Adjuvant Ipilimumab Anti-CTLA4 Therapy Versus High-Dose Interferon á-2b for Resected High-Risk Melanoma (ECOG)</td>
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<td>Osei (PI), Letson Davidorf, Wells</td>
<td>ACCORDIAN: Action to Control Cardiovascular Risk in Diabetes (ACCORD) Follow-up Study</td>
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<td>Koletar (PI), Kuennen</td>
<td>A Phase Ib, observer-blind, placebo controlled, multi center primary/ booster therapeutic vaccination study to determine efficacy and safety of F4co/AS01B vaccine, administered intramuscularly according to either a two dose (0, 4 weeks) or a three dose (0, 4, 28 weeks) schedule in ART-naive HIV-1 infected persons aged 18-55 years</td>
<td>Infectious Disease / GSK</td>
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<td>Kostyk (PI), Katz</td>
<td>A randomized, double-blind, placebo-controlled study to assess the safety and tolerability, and efficacy of PD1T2 in patients with early to mid-stage Hunntingon Disease (Reach HD)</td>
<td>Neurology / Prana Biotech.</td>
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<tr>
<td>Boster (PI), Katz</td>
<td>Multicenter, randomized, double-blind, placebo-controlled, parallel-group dose-finding study to evaluate the efficacy, safety, and tolerability of three doses of ACT-128800, or oral S1P1 receptor agonist, administered for twenty-four weeks in patients with relapsing-remitting multiple sclerosis</td>
<td>Neurology / Actelion</td>
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<td>Boster (PI), Katz</td>
<td>A double-blind, randomized, multicenter, placebo-controlled, parallel-group study comparing the efficacy and safety of 1.25mg FTY720 administered orally once daily versus placebo in patients with primary progressive multiple sclerosis</td>
<td>Neurology / Novartis</td>
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<tr>
<td>Boster (PI), Katz</td>
<td>A 24-month double-blind, randomized, multicenter, placebo-controlled, parallel-group study comparing the efficacy and safety of 0.5 mg and 1.25 mg Fingolimod (FTY720) administered orally once daily versus placebo in patients with relapsing-remitting multiple sclerosis with optional extension phase</td>
<td>Neurology / Novartis</td>
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<td>Byrd (PI), Katz</td>
<td>A Phase 1b Fixed-dosed Study of Bruton's Tyrosine Kinase (Btk) Inhibitor, PCI-32765, in Chronic Lymphocytic Leukemia</td>
<td>Cancer / Pharmacyclics</td>
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<td>Otterson (PI), Katz</td>
<td>A Phase II, Open-label, Multicenter, Randomized Study to Assess the Efficacy and Safety of GSK1120212 Compared with Docetaxel in 2nd Line Subjects with Targeted Mutations (KRAS, NRAS, BRAF, MEK1) in Locally Advanced or Metastatic Non- small Cell Lung Cancer (NSCLC Stage IIIb/IV).</td>
<td>Cancer / GSK</td>
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<tr>
<td>Otterson (PI), Katz</td>
<td>Phase 2, Open-label Single Arm Study of the Efficacy and Safety of PF-02341066 in Patients with Advanced Non-small Cell Lung Cancer Harboring a Translocation or Inversion Involving the Anaplastic Lymphoma Kinase (ALK) Gene Locus</td>
<td>Cancer / Pfizer</td>
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<td>Otterson (PI), Katz</td>
<td>Phase 3, randomized, open-label study of the efficacy and safety of PF-02341066 versus standard of care chemotherapy (pemetrexed or docetaxel) in patients with advanced non-small cell cancer (NSCLC) harboring a translocation or inversion event involving the Anaplastic lymphoma kinase (ALK) gene locus</td>
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<td>Go (PI), Wells</td>
<td>Critical Limb Ischemia Stem Cell Study</td>
<td>Cardiology / Arteriocyte</td>
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Salem MM, Davidorf FH, Abdel-Rahman MH. "In vitro anti-uveal melanoma activity of phenolic compounds from the Egyptian medicinal plant Acacia nilotica." Fitoterapia. 2011 Dec;82(8):1279-84.


**BOOK CHAPTERS**


