



Iowa Vision



Department of Ophthalmology
and Visual Sciences

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Still seeing after all these years

At 97 years old, Ruth Fisher of Kalona, Iowa, still enjoys her eyesight. She credits her good vision to the treatment received several decades ago at University of Iowa Hospitals and Clinics, then known as the State University of Iowa Hospitals.

In 1953 Ruth returned to her home in Iowa after serving three years abroad as director of a Taiwanese orphanage, a job she planned to return to after a year off. With her leave nearing completion, she decided to get medical, dental, and eye checkups prior to returning overseas. Her visit to an ophthalmologist uncovered some news that would dramatically change her plans.

Ruth had eye problems as a teenager that worsened as she got older. Her appointment with the late Drs. P.J. Leinfelder and Alson E. Braley confirmed that her declining vision was from keratoconus, a condition in which the cornea becomes cone-shaped. The cornea tissue thins and can scar, sometimes severely. An individual's vision may be severely impaired if not treated. For Ruth, her best hope for continued vision was corneal transplantation.

The procedure was very new at that time and Ruth admits she was nervous before surgery. She didn't hesitate, though, as there was a strong chance she would go blind otherwise.

Dr. Braley, head of the department of ophthalmology at the time and an early pioneer in the field of corneal transplantation, performed the surgery in her left eye in July 1954. It was among the first corneal transplants in the state.

In those days patients were told to lie flat for two weeks after surgery and there was a great deal of concern regarding the risk of infection. "Cornea transplants were so new, I had to go to the hospital three times a week at first for them to keep checking my eyes," Ruth remembers. The procedure went well so she proceeded to have a transplant in her right eye later that year.

The initial risk of infection meant she could not travel after surgery and would not be able to return to her position overseas. Ruth wondered what she would do for work after the surgery. That question was



Ruth Fisher now (2011)
and then (1954).



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OUR CAMPAIGN FOR **BREAKTHROUGH** MEDICINE

The University of Iowa's Eye Program figures to be a major beneficiary of UI Health Care fundraising campaign.

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answered when, as Ruth recalls “Dr. Braley said, ‘how about you come work for me? You can start next Monday’.”

It was 1955 and Dr. Braley was in the process of forming a new eye bank, the first in Iowa and one of the first in the country. He needed some administrative help to get the effort off the ground and recruited Ruth as the executive secretary. On her first day, Dr. Braley handed her a shoebox with paper and pens. Office space was limited so she took an empty desk in the clinic area until a small space could be remodeled into her first office. The job suited Ruth well as she not only had the organizational skills needed for the task, but was also a living testimonial of what corneal transplants can achieve.

Her early years with the Eye Bank involved countless presentations about the importance of eye and tissue donation and the benefits to which she personally experienced. She presented to Lions Clubs across Iowa and at the Iowa State Fair. Ruth spent 28 years leading what became the Iowa Lions Eye Bank through its inception and continued growth until her retirement in 1983.



Dr. Braley (right) and Dr. Jay Krachmer, former faculty members, discuss advances in corneal transplants with Miss Fisher during one of her routine eye exams.

Today Ruth enjoys reading, playing cards, meeting with friends, and is busy with activities and frequently attends the local Lioness Club she helped to create. Through it all she remains thankful for the gift of eyesight she received so many years ago.

UI Hospitals and Clinics among clinical centers for study of AMD treatments

Earlier this year researchers reported results from the first year of a two-year clinical trial that Avastin, a drug approved to treat some cancers and that is commonly used off-label to treat age-related macular degeneration (AMD), is as effective as the Food and Drug Administration-approved drug Lucentis for the treatment of AMD.

The report, from the Comparison of AMD Treatments Trials (CATT), was published online April 28 in the *New England Journal of Medicine*. The clinical trial is funded by the National Eye Institute (NEI), a part of the National Institutes of Health.

The University of Iowa Hospitals and Clinics was one of 43 clinical centers in the United States to participate in the CATT study.

“This study showed that Lucentis and the much less expensive Avastin were equal for treating neovascular Age-Related Macular Degeneration,” said **James Folk, MD**, professor of ophthalmology and visual sciences, and principal investigator for CATT at the UI. “The results give doctors and their patients more treatment options for AMD including which drug to use and when to inject it.”

Find out more about this clinical trial (NCT00593450) at:

www.clinicaltrials.gov



Photo: University Communication and Marketing Photography University of Iowa

UI eye doctors among U.S. News “Top Doctors”

Ten ophthalmologists at the University of Iowa Hospitals and Clinics (UIHC) are listed among *U.S. News* “Top Doctors.” The listing of peer-nominated physicians recognizes the top medical specialists in the country. UIHC ophthalmologists are the only ones recognized in the state of Iowa and include **Wallace Alward, MD, Keith Carter, MD, Edwin Stone, MD, PhD, Arlene Drack, MD, Kenneth Goins, MD, Randy Kardon, MD, PhD, Young Kwon, MD, PhD, Thomas Oetting, MD, and Stephen Russell, MD**. Additionally, **Michael Wall, MD**, is listed under neurologists. Find a searchable list at: <http://health.usnews.com/top-doctors>

U.S. News & World Report ranking

The University of Iowa Department of Ophthalmology and Visual Sciences was once again nationally ranked in the top ten (#6) by the U.S. News & World Report’s best hospital rankings.



Eye patient selected as Hawkeye Kid Captain

Benjamin Wilson was just five years old when he was diagnosed with severe abnormalities of the retina, the light-sensitive lining inside the eye. What had started as a routine eye exam ended with his parents being told he would have progressive, uncorrectable vision loss that would lead to blindness.

“We were shocked by the diagnosis. Benjamin had not been showing any signs of eye problems,” says Benjamin’s dad, Dave. Adds his mom, Vicki, “We were told there was no cure, no treatment at all. We didn’t know what his future was going to be.” After scouring the Internet and talking to the Founda-



Benjamin Wilson was selected to be the Kid Captain for the 2011 Iowa football season opener vs. Tennessee Tech University on September 3.

tion Fighting Blindness, Dave found the lab of UI genetics researcher Dr. Edwin Stone, professor of ophthalmology and a Howard Hughes Medical Institute investigator.

After reading about Dr.

Stone’s work, Dave and Vicki knew they would go to University of Iowa Children’s Hospital to confirm the diagnosis and find out more about Benjamin’s eye disease.

Two months later, Benjamin and his family drove to Iowa City for his appointment. Right away, it felt like home. “Dr. Stone didn’t want it to be scary for Benjamin and it wasn’t at all,” says Vicki. The doctors and nurses spent extra time with the family to explain his disease and the tests they would be doing.

The family learned the disease can be genetic and that both Dave and Vicki carry a recessive gene

“This is a place where top-notch research is being done. There is nowhere else that could be doing more for them.”

for it. A couple of years ago, Benjamin’s younger sister, Chloe, now 8, was examined by Dr. Stone. She is also affected. Chloe and her brother return every year for tests to determine how their eyes process light, field of vision, and, of course, vision and retina exams.

The retina is an extension of the brain which has layers of nerve cells that are responsible for detecting light. These layers include rods, which control peripheral vision and the ability to see in dim light; and cones, which affect central vision and perception of color.

Because the disease has affected his rods first, Benjamin’s eyes don’t adapt to dim light. He walks with others at night and is learning to use a white cane for when he’s older and living on his own.

The 11-year-old is proud to be a pioneer in genetic research into blinding eye diseases. He says he looks forward to his visits to the doctor and laughs, “How many kids say that?” He even plans to go to The University of Iowa and wants to be a scientist for the FBI when he grows up.

The entire Wilson family is proud of their connection with UI Children’s Hospital. “No matter what the future holds, we feel confident. We are so grateful to Dr. Stone and his staff for giving us hope,” says Vicki. Adds Dave, “This is a place where top-notch research is being done. There is nowhere else that could be doing more for them.”

In its third year, the Kid Captain program is a partnership between UI Children’s Hospital and the Iowa Hawkeyes to honor UI Children’s Hospital patients and celebrate their inspirational stories. For information visit: www.uihealthcare.org/kidcaptain



Benjamin Wilson poses with Dr. Ed Stone. Game day photos by Samantha Terrill.

UI eye doctors and alumni highlighted among nation’s leading ophthalmologists

Becker’s *ASC Review* profiled 135 of the leading ophthalmologists in the United States. Among them are Drs. **Keith D. Carter** and **Edwin M. Stone** of the University of Iowa Department of Ophthalmology and Visual Sciences and Dr. **Andrew G. Lee** of Methodist Hospital in Houston who is an adjunct professor to the UI.

Other listed ophthalmologists who received training at The University of Iowa, include: **David J. Apple, MD** (‘80R); **Laurie G. Barber, MD** (‘84MD); **David M. Brown, MD** (‘93R, ‘95F); **Edward J. Holland, MD** (‘85F); and **Mark J. Mannis, MD** (‘80F).

The publication, which features business, legal and clinical topics for outpatient surgery centers, lists physicians based on the awards they received from major organizations in the field, leadership in those organizations, work on professional publications and positions of service. For details and the complete list, visit:

www.beckersasc.com/lists/135-leading-ophthalmologists-in-america.html

International rotation

Chris Watts, MD ('12R), traveled to the Dominican Republic for his international rotation earlier this past spring. He joined alumnus **Mick E. VandenBosch, MD** ('89MD, '94R) and a group of about 20 physicians and medical staff on a medical mission with Children of the Nations, an organization that has established a medical clinic in the Baharona district of the Dominican Republic.

The trip offered an opportunity to learn about another culture and health care delivery system. "All in all, it was a fantastic trip both in what I was able to learn, but also what we were able to do. We were able to give a lot of people very functional vision where there was none before," commented Dr. Watts.

Dr. Watts' participation had a mutual benefit. Dr. VandenBosch said, "Dr. Watts and the optometrist worked very well in the clinic, freeing me to operate more than I have in previous years. He also did some surgery and did a great job. He was always willing to do whatever needed to be done and was so appreciative of the experience. We truly benefited from his presence, as did the poor people in Barahona."



Dr. VandenBosch examines a young patient while Dr. Watts captures the boy's attention with a fixation device.



Dr. Watts' 6'8" height led to him affectionately being called "El Gringo Grande." Here he poses with a few of the children seen in the Baharona clinic.



Iowa Residents joined representatives of the Iowa Academy of Ophthalmology (IAO) for the American Academy of Ophthalmology Mid-Year Forum. The group traveled to Washington, DC where they had an opportunity to learn about the legislative process and advocate on behalf of the medical specialty. Pictured here are **Jared Nielsen, MD**, **Chris Hauptert, MD** ('94MD); President of the IAO, **Andrea Harris**, Health Policy Advisor to Iowa Senator Tom Harkin (D); **Meredith Saylor, MD** ('13R); and **Jordan Rixen, MD** ('13R).



Michael C. Brodsky, MD, (center) Pediatric Neuro-ophthalmologist from the Mayo Clinic with faculty of the Pediatric Ophthalmology Service. Dr. Brodsky delivered the William E. Scott Lecture in Pediatric Ophthalmology last spring.

Thanks to illustrator Alton Szeto, MFA, husband of former resident Janet Tsui, MD, EyeRounds has a new logo. Check it out along with the new case reports and tutorials at:

www.EyeRounds.org

EYE ROUNDS.ORG

Research Day 2011 grows in size and scope

Residents, fellows, orthoptic trainees, medical students, and other vision research scholars showcased their research interests and projects during Research Day on April 22. This event is supported by the William C. and Dorothea Gaedke Charitable Trust, and, in part, through an unrestricted grant from Research to Prevent Blindness.



2011 P.J. Leinfelder Awards for best research presentations and posters went to **Gina Rogers, MD** ('11R); **Ryan Tarantola, MD** ('11F); **Alina Dumitrescu, MD** ('09F, '10F, '11F); and **Shaival Shah, MD** ('12R).



This year's guest judges included **Scott A. Larson, MD** ('02R, '03F); **Peter A. Netland, MD, PhD**; **Michael V. Boland, MD, PhD** ('05R).

Alumni Roundtable with Dr. Bruce Spivey



Bruce Spivey, MD, FACS ('59MD, '64MS, '64MD), President of the International Council of Ophthalmology, visited Iowa City and met with residents as an Alumni Roundtable guest. Dr. Spivey shared a historical perspective of ophthalmology and encouraged residents to get involved in leadership positions within ophthalmology and medical organizations. He also encouraged trainees to pursue opportunities to serve globally.

Remembrance

Michael R. Redmond, MD ('75F) of Milton, FL, passed away on June 20, 2011. Dr. Redmond was a tireless advocate on behalf of ophthalmologists and their patients. As a pediatric ophthalmologist, he was particularly concerned about children's eye care issues.

David J. Apple, MD ('80R), of Sullivans Island, SC, passed away on August 18, 2011. Dr. Apple was a pioneer in the fields of ophthalmology and pathology and his research contributed to the success story that is modern cataract surgery.

Alumni corner

- **Michael R. Redmond, MD** ('75F), received the AAO Outstanding Advocate Award earlier this year, prior to his passing away in June 2011.
- **Alan E. Kimura, MD** ('89F), was selected to participate in the AAO Leadership Development Program Class of 2012.
- **Andrew P. Doan, MD, PhD** ('05R), was selected to be Deputy Editor-in-Chief for the AAO's Ophthalmic News and Education (ONE) Network.
- **Nandini Gandhi, MD** ('10R), was recognized as Fellow of the Year while training at the Duke Eye Center.

2011 American Academy of Ophthalmology Awards:

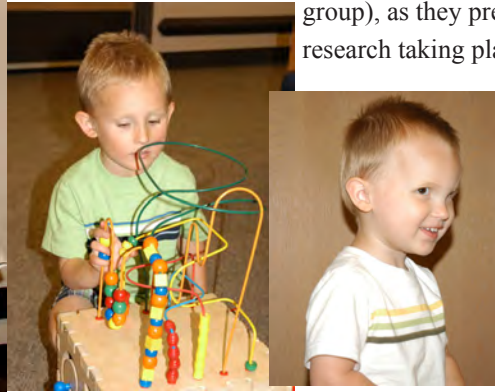
- Guest of Honor Award - **Bruce E. Spivey, MD** ('59MD, '64R)
- Life Achievement Award – **Richard L. Anderson, MD** ('71MD, '75R), **Jeffrey A. Nerad, MD** ('84F)
- Senior Achievement Award – **F. Jane Durcan, MD** ('86F), **David T. Tse, MD** ('82F)
- Achievement Award - **William J. Dupps, Jr., MD, PhD** ('04R), **Aaron P. Weingeist, MD** ('93MD)
- Secretariat Award – **Edward J. Holland, MD** ('85F), **Aaron P. Weingeist, MD** ('93MD), **Andrew P. Doan, MD, PhD** ('05R)

Let us know if you have received a special award or type of distinction. Email us at iowaeyecare@uiowa.edu

Grateful family supports vision research



Bryce and Roseann Drapeau of Bellevue, Iowa, and their sons, Reece and Ryder, pose with pediatric ophthalmologist **Dr. Arlene Drack** (center of group), as they present a check to support retinal research taking place at The University of Iowa.



The family held a fundraising event to raise funds and awareness for Leber congenital amaurosis, a rare degenerative retinal disease that affects both boys. The family raised \$18,500 through “Reece and Ryder’s Fight for Sight”!

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800-777-8442

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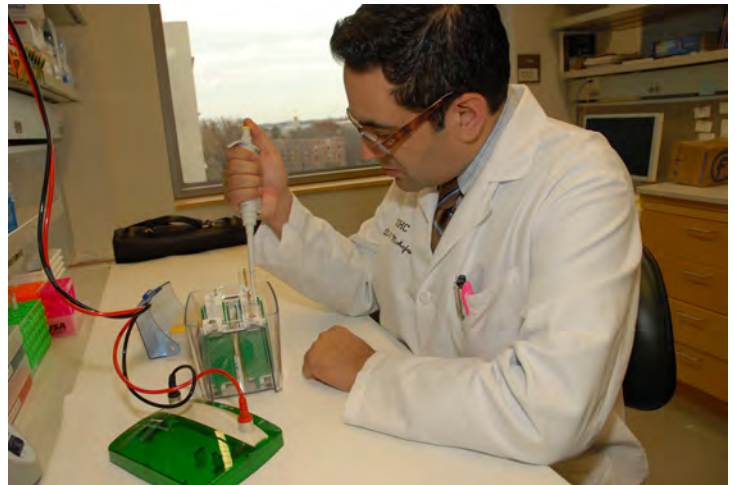
American Health Assistance Foundation funds AMD research project

Vinit Mahajan, MD, PhD, assistant professor of ophthalmology and visual sciences, received a two-year, \$100,000 grant from the American Health Assistance Foundation to investigate the role of inflammatory proteins in age-related macular degeneration.

Using sophisticated protein analysis tools to study blood vessels from the eye, Mahajan aims to identify which cytokine proteins and their signaling partners cause macular degeneration.

Cytokines are important proteins that cause inflammation and bleeding in age-related macular degeneration.

Learning which of the 200 different cytokines and which of the 1000 signaling molecules are involved in bleeding might lead to new therapeutic targets to prevent macular degeneration.



The American Health Assistance Foundation is an international nonprofit organization dedicated to finding cures for age-related degenerative diseases, including vision-related conditions such as macular degeneration and glaucoma.

Leave a legacy

Charitable gifts made through your estate can be a wonderful way to provide lasting support for the University of Iowa Department of Ophthalmology and Visual Sciences and the Institute for Vision Research. For more information on bequests, gifts of retirement plan assets, charitable gift annuities, or other gift planning strategies, please contact the UI Foundation at 800-648-6973 or visit: www.givetoioowa.org/eye

IowaFirst: Our campaign for breakthrough medicine

The University of Iowa publicly launched a \$500 million fundraising campaign that UI officials say will transform medical research, medical education and patient care at the UI Roy J. and Lucille A. Carver College of Medicine and UI Hospitals and Clinics. The campaign, titled “IowaFirst: Our Campaign for Breakthrough Medicine,” runs through December 31, 2013.

Iowa First targets key areas where strategic investment is likely to yield maximum results. In addition to enhancing medical education at the UI, the campaign is designed to secure significant funding for high-risk, high-reward research and world-class clinical care in numerous disciplines. Among these is \$100 million in the area of blinding eye diseases where UI is a nationally recognized center of excellence.

UI’s Eye Program includes the Department of Ophthalmology and Visual Sciences and the interdisciplinary Institute for Vision Research. Our team includes some of the nation’s leading vision researchers, clinicians and educators in the field of ophthalmology. Fundraising goals

for Iowa’s world-class program include options to invest in promising areas of research, treatment and patient support programs. Additionally, faculty support through endowed chairs and professorships allows the department to recruit the best minds who can share their talents with new generations of clinicians and researchers.

“We have a tremendous opportunity to become the best eye program in the country,” asserted **Keith D. Carter, MD**,



professor and head of ophthalmology and visual sciences, who also holds the Lillian C. O’Brien and Dr. C.S. O’Brien Chair in Ophthalmology. He added, “Private philanthropy con-



tinues to be one of the most important factors in expediting discoveries, educating tomorrow’s ophthalmologists and fueling our mission.”

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OUR CAMPAIGN FOR **BREAKTHROUGH** MEDICINE

IowaFirst provides opportunities to contribute to the scientific breakthroughs related to the causes and cures for a wide variety of vision disorders that affect people across Iowa and around the world. To learn more about the campaign and how you can make an impact on our efforts to cure and treat blinding eye disease, visit:

www.uifoundation.org/iowafirst/eye

The Eye Program at the University of Iowa has a goal to become the undisputed global leader in eye care, ophthalmic education, and vision research. To learn more about how philanthropic support helps to advance the work of the UI Department of Ophthalmology and Visual Sciences and Institute for Vision Research, please contact:

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The University of Iowa Foundation



The UI acknowledges the UI Foundation as the preferred channel for private contributions that benefit all areas of the university. For more information or to make a donation in support of the Eye Program, visit the UI Foundation’s secure website at: www.uifoundation.org/eye

UI vision researchers receive \$1.6 million from Foundation Fighting Blindness

Researchers in the Department of Ophthalmology and Visual Sciences at the University of Iowa Roy J. and Lucille A. Carver College of Medicine have received a five-year, \$1.6 million grant from the Foundation Fighting Blindness.

The funding will support the Research Center for the Study of Retinal Degeneration, which is part of the UI Institute for Vision Research. **Edwin Stone, MD, PhD**, the Seamans-Hauser Chair in Molecular Ophthalmology, director of the UI Institute for Vision Research and a Howard Hughes Medical Institute investigator, is the principal investigator for the grant.

Stone and colleagues will focus on identifying new causes of inherited retinal disease and exploring the mechanism and course of the diseases.

“In order to develop a new treatment, and prove that it works, we need to understand the cause of the disease, as well as its behavior over time, at the molecular, cell, tissue, animal and human levels,” Stone explained. “This funding from the Foundation Fighting Blindness will allow us to vigorously pursue our overall mission of finding cures for blindness through basic and clinical research.”

Stone will lead researchers seeking to identify new genes involved in inherited eye diseases. Using a variety of DNA genotyping technologies, the team will look for new photoreceptor degeneration associated genes. This type of cell damage occurs in eye conditions ranging from the most common human retinal disease – age-related macular degeneration (AMD) – to extremely rare conditions that affect only a few thousand people worldwide, such as Leber congenital amaurosis.

Budd Tucker, PhD, assistant professor of ophthalmology and visual sciences, will lead a team focused on the use of induced

Researchers, engineers, and physicians routinely gather to share scientific findings and collaborate on new projects.

pluripotent stem cells to model and treat inherited retinal disease. Induced pluripotent stem cells are stem cells generated from a patient’s own cells (usually skin cells). These immature cells can be coaxed to develop into retinal tissue, allowing researchers to examine at a molecular and cellular level how a patient’s genetic mutation affect the retina.

Stephen Russell, MD, professor of ophthalmology and visual sciences who holds the Dina J. Schrage Professorship in Macular Degeneration Research, will lead a group analyzing the eyes of patients with AMD, matching physical and functional features of the eyes with genetic patterns obtained from the patients’ DNA. The research aims to identify areas of the genome that may hold specific genes that cause AMD or influence the severity of the disease.

“We anticipate that the interdisciplinary, translational studies funded by this grant will continue to advance our understanding and treatments of both common and rare retinal diseases,” Stone said.

For more information about Foundation Fighting Blindness, visit: www.FightBlindness.org



Symposium showcases vision research in the Midwest

Researchers, scientists and physicians gathered July 29 in Iowa City for the 4th Annual Midwest Eye Research Symposium. Nearly 90 people attended to discuss scientific ideas and present research projects involving vision disorders. Representatives from institutions in Iowa, Wisconsin, Minnesota, Nebraska, and Texas were on hand.

The annual meeting is a regional forum for scientists in vision-related fields to present their findings and develop professional contacts. For information, visit:

www.eyegroup.org



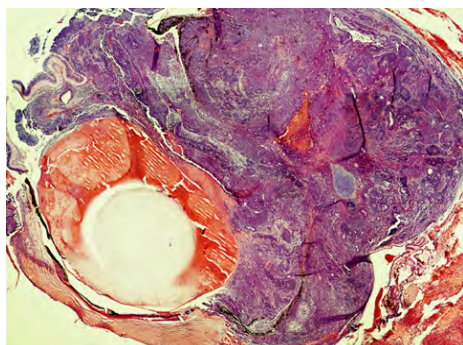
UI research team finds new genetic cause of blinding eye disease

Combining the expertise of several different labs, University of Iowa researchers have found a new genetic cause of the blinding eye disease retinitis pigmentosa (RP) and, in the process, discovered an entirely new version of the message that codes for the affected protein.

The study, which was published online Aug. 8 in the *Proceedings of the National Academy of Sciences* Early Edition, suggests that the mutation may be a significant cause of RP in people of Jewish descent. The findings also lay the groundwork for developing prevention and treatment for this form of RP using a combination of genetic testing, gene therapy and cell replacement approaches.

Using the latest DNA sequencing techniques to analyze the protein-coding regions of a single RP patient's genome, the researchers found a mutation in a gene called MAK (male germ cell associated kinase). This gene had not previously been associated with eye disease in humans. However, examining tissue from donated eyes showed that MAK protein was located in the parts of the retina that are affected by the disease.

The researchers then generated induced pluripotent stem cells (iPSCs) from the patient's own skin cells and coaxed these immature cells to develop into retinal tissue. Analyzing this tissue showed that the gene mutation caused the loss of the MAK protein in the retina.



Formation of a large teratoma at 4 weeks post injection of undifferentiated iPSCs into a mouse eye.

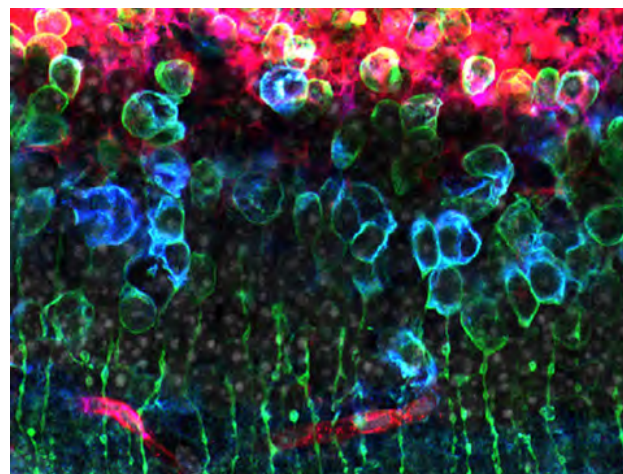
"These new technologies have greatly enhanced our ability to find and validate disease-causing mutations, which is critical to our ability to progress to the next step of actually treating diseases like RP," said **Budd Tucker, PhD**, assistant professor of ophthalmology and visual sciences, and lead study author.

RP is an uncommon, inherited blinding eye disease that affects about 1 in 4,000 people in the United States. It is thought to be caused by mutations in more than 100 different genes, only half of which have been identified.

"Based on the new work, the UI team hopes to explore gene therapy and cell replacement strategies as potential therapies for this form of RP."

Having found the MAK mutation in one patient, UI researchers led by **Edwin Stone, MD, PhD**, a Howard Hughes Medical Institute investigator, and director of the UI Institute for Vision Research, screened the DNA of 1,798 patients with RP and identified 20 additional individuals with the same MAK mutation. This result suggests that the new MAK mutation accounts for about 1.2 percent of RP cases in the general population. Interestingly, all 21 of the RP patients with the MAK mutation were of Jewish descent, suggesting that the mutation may be a significant cause of RP in this population.

Work in the lab of **Robert Mullins, PhD**, associate professor of ophthalmology and visual sciences, showed that MAK protein was produced in the cells most affected



Bipolar cells making connections with newly engrafted iPSCs.

by RP. These findings prompted Tucker and colleagues to make iPSCs from the original patient.

"Induced pluripotent stem cells allow us to generate affected tissue from patients with genetic disorders and analyze how specific genetic mutations cause disease," Tucker said. "It's particularly powerful when we are looking at inaccessible tissues such as the retina and brain which are not usually biopsied in living individuals."

Although the MAK gene was previously thought to have 13 protein-coding segments known as exons, when the UI team cloned and sequenced the MAK gene, they discovered a new version of the gene found only in the retina, which has an extra protein-coding exon.

Based on the new work, the UI team hopes to explore gene therapy and cell replacement strategies as potential therapies for this form of RP.

In addition to Tucker, Stone, and Mullins, the research team included Todd Scheetz, Val Sheffield, Adam DeLuca, Jeremy Hoffman, and Rebecca Johnston of the UI and Samuel Jacobson of the Scheie Eye Institute at the University of Pennsylvania.

The study was funded in part by grants from the National Eye Institute, National Institutes of Health New Innovator Award program and the Foundation Fighting Blindness.

Research to Prevent Blindness awards grants to two UI vision researchers

Vinit B. Mahajan, MD, PhD ('08F), assistant professor of ophthalmology and visual sciences, received a four-year, \$250,000 Career Development Award to identify genes that are involved in inflammatory eye disease. Understanding the genetic basis of inflammation in the eye could lead to improved treatment approaches.

Markus H. Kuehn, PhD, assistant professor of ophthalmology and visual sciences, received the Sybil B. Harrington Special Scholar Award, a one-year grant for \$55,000. Kuehn is investigating the relationship between a cellular stress response and elevated pressure inside the eye, which is associated with glaucoma and other blinding eye diseases.

Research to Prevent Blindness is the leading voluntary organization supporting research into the causes, treatment and prevention of diseases that threaten vision.



UI vision researcher speaks at congressional briefing on visual disorders from traumatic brain injury

The National Alliance for Eye and Vision Research hosted a congressional briefing entitled "Diagnosing Vision Problems Resulting from Traumatic Brain Injury (TBI)" earlier this year. Featured speakers included professor of ophthalmology **Randy Kardon, MD, PhD** ('75BS, '82MD PhD, '87R, '89F), who discussed how his research into diagnosing vision problems resulting from TBI can meet battlefield needs, emphasizing the importance of funding for extramural defense vision research. Kardon is one of 12 vision researchers who have received grant awards from the Department of Defense's Telemedicine and Advanced Technology Research Center.



Abràmoff recognized for imaging technologies

The American Telemedicine Association named associate professor of ophthalmology, **Michael D. Abràmoff, MD, PhD**, as a co-winner of the 2011 President's Award for the Advancement of Telemedicine for Innovation. Dr. Abràmoff was recognized for his innovative approaches in the automated detection of diabetic retinopathy.

The awards, given by the American Telemedicine Association (ATA) recognize individuals and organizations who are leaders in developing remote health care technology. All ATA Annual Awards have an open nomination period each spring; winners are selected by a peer committee of telemedicine leaders from academia and industry.



Dr. Abràmoff formally accepted his award at the ATA 2011 Meeting and Exposition, May 1-3 in Tampa, Florida.

2011 Medical Student Research Day Awards

The Hansjoerg E. Kolder, MD, PhD Research Award in Ophthalmology: **Tyler Risma** – "iPS cell derived Trabecular Meshwork cells may decrease IOP in mouse model of Glaucoma." Mentor: **Markus Kuehn, PhD**

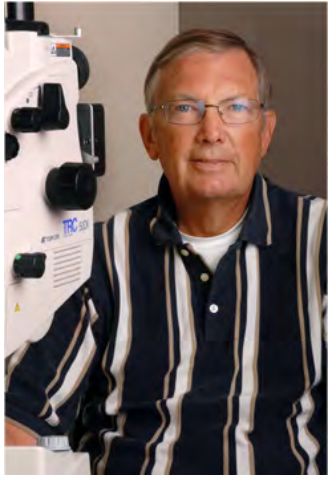
The William E. Scott, MD Research Award in Ophthalmology: **Serena Heinz** – "Molecular Genetic Analysis of TLR4 in Normal Tension Glaucoma Patients." Mentor: **John Fingert, MD, PhD**

The H. Stanley Thompson, MD Research Award in Ophthalmology: **Michael Moriarty** – "Lipoprotein Interactions and Receptors in Choroidal and Retinal Pigment Epithelial Tissue." Mentor: **Robert Mullins, PhD**

The Thomas A. Weingeist, PhD, MD Research Award in Ophthalmology: **Kiley Boone** – "Study of Tractional Retinal Detachment in Patients with Proliferative Diabetic Retinopathy." Mentor: **Elliott Sohn, MD**

FACULTY NOTES

Paul R. Montague, CRA, FOPS, Director of Diagnostic Imaging for the department, passed



away August 13, 2011. Paul joined the department in 1976 and helped keep the department at the leading edge of technology. Among his many contributions over the years, he developed and maintained several image processing and storage solutions that improved clinical

workflow and enhanced patient care. Paul was also an accomplished photographer outside the world of ophthalmology. In addition to photographing beautiful landscapes and portraits, he was a photographer for the Iowa Hawkeye football team.

In recognition of his service and innovative contributions to our department and to the field of ophthalmic photography, the diagnostic imaging suite in our eye clinic is named after him.

Beth R. Kutzbach, MD ('00BA, '05MD), joined the department as assistant professor of ophthalmology and visual sciences. Dr. Kutzbach recently completed her ophthalmology residency training at the Mayo Clinic Department of Ophthalmology. She joins our Comprehensive Ophthalmology and Cataract Surgery Service.



Khadija S. Shahid, OD, FAAO, joined the department as assistant professor of clinical ophthalmology. She joined the department from the The Institute of Ophthalmology and Visual Science at the New Jersey Medical School in Newark, NJ where she most recently served as Director of the Center for Low Vision Rehabilitation and On-Site Medical Director of Telemedicine Outreach Program Services.



Lyse S. Strnad, MD ('86R), of Eye Physicians & Surgeons in Iowa City, was promoted to adjunct clinic assistant professor.

AAO recognizes several Iowa faculty

The American Academy of Ophthalmology awarded 2011 Academy Awards to:
 Senior Achievement Award – **Wallace L.M. Alward, MD**
 Secretariat Awards – **Young H. Kwon, MD, PhD**, and **Keith D. Carter, MD**



Wallace L.M. Alward, MD



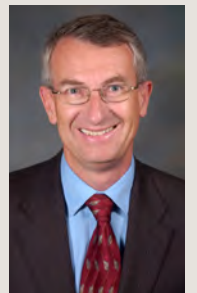
Keith D. Carter, MD



Young H. Kwon, MD, PhD

Sonka recognized for excellence

Milan Sonka, PhD, professor in the department of electrical and computer engineering, was awarded the 2011 Iowa Board of Regents Award for Faculty Excellence. Dr. Sonka holds a joint appointment in ophthalmology and visual sciences and is also director of the Iowa Institute for Biomedical Imaging.



The Contact Lens Manufacturers Association (CLMA) selected **Christine Sindt, OD, FAAO**, associate professor of clinical ophthalmology, as its "GP Practitioner of the Year" for 2011. The award recognizes individuals who demonstrate outstanding professional expertise in fitting gas permeable contact lenses to the benefit of the contact lens industry and corneal health.

Chris Johnson, PhD, professor of ophthalmology and director of the Visual Field Reading Center was recognized as a "Senior Research Scientist" at the 2011 World Glaucoma Congress. The Congress was held this past summer in Paris, France where over 3,000 participants from more than 95 different countries attended.

Welcome our new residents and fellows

First Year Residents (left to right) include:

Angela R. McAllister, MD

BS (Biochemistry), University of Wisconsin
MPH, Tulane University School of Public
Health and Tropical Medicine
MD, University of Wisconsin School of
Medicine and Public Health

Elizabeth H. Gauger, MD

BA (Biochemistry), Washington University
MD, University of Iowa Carver College of
Medicine

Pavlina S. Kemp, MD

BSE (Biomedical Engineering), University of
Iowa
MD, University of Iowa Carver College of
Medicine

Justin M. Risma, MD

BS (Kinesiology), Wheaton College
MD, University of Nebraska College of
Medicine

Matthew C. Weed, MD

BS (Microbiology), Brigham Young University
MD, University of California, San Diego
School of Medicine



New Fellows



Benjamin Bakall, MD, PhD – Medical Retina
PhD (Clinical Genetics), Uppsala University,
Sweden
MD, Uppsala University, Sweden
Postdoctoral Fellowship, Swedish Research Council
Internship, Department of Surgery, University of
Arizona College of Medicine
Ophthalmology Residency, Department of
Ophthalmology and Vision Science, University of
Arizona College of Medicine



Gina Rogers, MD – Corneal & External Disease,
Refractive Surgery
BS (Biology), DePaul University, Chicago
MD, Rush Medical College, Chicago
Ophthalmology Residency, University of Iowa,
Department of Ophthalmology & Visual
Sciences

Matthew A. Cunningham, MD – Retina
BS (Interdisciplinary Studies), University of
Florida
MD, University of Florida College of Medicine
Internal Medicine, Baylor College of Medicine,
Houston
Ophthalmology Residency, Baylor College of
Medicine, Houston



Rachel Sobel, MD – Oculoplastics
BA (History of Science), Harvard University
MD, University of California, San Francisco
School of Medicine
Preliminary Medicine, Lenox Hill Hospital,
New York City
Ophthalmology Residency, Wills Eye Institute,
Philadelphia



Jeffrey T. Lynch, MPH, MD – Pediatric
Ophthalmology
BS (Biology), Loras College, Dubuque, Iowa
MPH, University of Iowa College of Public Health
MD, University of Iowa Carver College of Medicine
Internal Medicine, Loyola University Medical
Center
Ophthalmology Residency, Saint Louis University
School of Medicine



Brian Tienor, MD – Glaucoma
BS (Biochemistry, Chemistry), University of
Minnesota
MD, University of Minnesota Medical School
Ophthalmology Residency, University of
Minnesota Medical School

Alethia H. Pantazis, MD – Neuro-Ophthalmology
BS (Chemistry), Georgia Institute of Technology
MD, Northeastern University College of Medicine,
Boston
Transitional Medicine, Summa Health Systems,
Akron City Hospital
Ophthalmology Residency, John H. Stroger, Jr.
Hospital of Cook County, Chicago

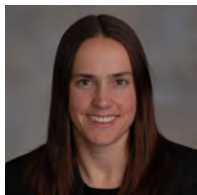


Paul Tluczek, MD – Retina
BA (Biology, Chemistry, Math), St. Olaf
College, Northfield, MN
MD, University of Oklahoma College of
Medicine
Internal Medicine, University of Oklahoma
College of Medicine
Ophthalmology Residency, Dean McGee Eye
Institute, University of Oklahoma College of
Medicine



Congratulations to our graduates

2011 Residents



Emily S. Birkholz, MD enters private practice at Ophthalmology Associates of Mankato in Mankato, Minnesota

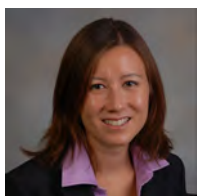
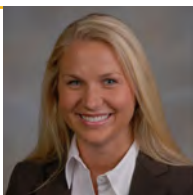


Brian K. Privett, MD joins a local private practice, Iowa Eye Center in Cedar Rapids, Iowa

Jason P. Brinton, MD is pursuing a Cornea Fellowship at Durrie Vision in Overland Park, Kansas



Gina M. Rogers, MD is staying for a Fellowship in Cornea and External Diseases



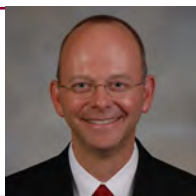
Leslie T.L. Pham, MD joins the Ophthalmology Institute of Orange County in Orange County, California



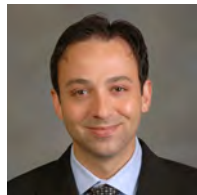
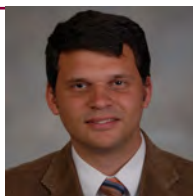
Janet Y.M. Tsui, MD enters private practice at Kaiser Permanente in Santa Clara, California

2011 Fellows

James H. Burden, MD (Glaucoma) resumes his career as Chairman of the Department of Ophthalmology at the Wilford Hall Medical Center at Lackland Air Force Base, Texas



Scott R. Haines, MD (Neuro-ophthalmology) joins the faculty of the Departments of Ophthalmology and Neurology at VCU Health System in Richmond, Virginia



Alex W. Cohen, MD, PhD (Cornea) joins the faculty at the Dean McGee Eye Institute in Oklahoma City, Oklahoma

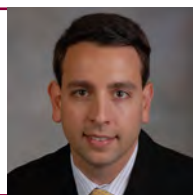


Christine N. Kay, MD (Retina) joins the faculty at the University of Florida Department of Ophthalmology in Gainesville, Florida

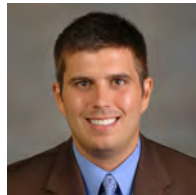
Yanjun 'Judy' Chen, MD (Neuro-Ophthalmology) is pursuing her medical career in St. Louis, Missouri



Ryan M. Tarantola, MD (Retina) joins the faculty at the Saint Louis University Eye Institute in St. Louis, Missouri



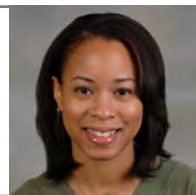
Michael S. Floyd, MD (Pediatric Ophthalmology) joins private practice at HealthPartners Woodbury Eye Clinic in Woodbury, Minnesota



Lucas J.A. Wendel, MD (Cornea) joins Koziol-Thoms Associates, a private practice in Arlington Heights, Illinois

Orthoptics Program

Shemeka Butler, CO joins the Virginia Eye Institute in Richmond, Virginia



Graduation celebration

Graduating residents and fellows gathered with faculty, staff, family and friends to celebrate the completion of their training at the University of Iowa Paul W. Brechler Press Box at Kinnick Stadium.



Residency program director **Tom Oetting, MD**, receives a humorous piece of artwork from the graduating residents.



Beisner celebration of life

Family, friends and colleagues of the late **Donald H. Beisner, MD** ('64MD, '70MS, '70R), gathered this past spring to celebrate Dr. Beisner's life and legacy to the University of Iowa Carver College of Medicine and Department of Ophthalmology and Visual Sciences.



Pictured here (left to right) are **Keith Carter, MD** ('88F); **John Chambers, MD** ('59BA, '63MD, 68R); **Bill Scott, MD** ('70R); **Charlotte Burns, MD** ('67R); **Jim Folk, MD** ('82R); **G. Frank Judisch, MD** ('62MD, '68R); **Bruce Spivey, MD, FACS** ('59MD, '64MS, '64R); **Robert Watzke, MD**, **Larry Wood, MD** ('71MS, '71R); **H. Stanley Thompson, MD** ('66R); and **Robert Baller, MD** ('65R).

Glaucoma specialists from across the country gather in Iowa City

The University of Iowa hosted the 34th Annual Midwest Glaucoma Society Symposium on June 17-18. Held in conjunction with the Iowa Eye Association Annual Meeting, the meeting drew about 100 attendees from across the United States and Canada.



Left to Right: Cheryl L. Khanna, MD, ('97F); John Lee, MD, ('72MD, '78R, '97F); Lesya Shuba, MD, PhD, ('06F); Rick Lewis, MD, ('83F); S. Douglas Owens, MD, ('94F); A. Tim Johnson, MD, PhD, ('91R, '92F); William L. Haynes, MD, ('92R, '93F); J. Kevin McKinney, MD ('93R, '95F); Wallace L.M. Alward, MD; Roger A. Barth, MD, ('91F); Yaffa K. Weaver, MD, ('98F); Dean W. Carlson, MD, ('92F); James H. Burden, MD, ('11F); Thomas A. Graul, MD, ('00F); Edward Sung, MD, ('04F); Robert A. Honkanen, MD, ('99F); Young H. Kwon, MD, PhD; Robert G. Smith, MD, ('88F); John H. Fingert, MD, PhD, ('00 MD PhD, '04R, '06F); Mansi Parikh, MD, ('09F)



Young Kwon, MD, PhD (left) and Joseph Caprioli, MD (center right) pose with Dr. Raya Armaly and Mrs. Aida Armaly (right). Dr. Caprioli provided the Mansour F. Armaly Lecture.



Richard A. Lewis, MD (left) and Paul P. Lee, MD, JD, respectively, were the Charles D. Phelps and Alson E. Braley Lecturers.

Organ, eye, and tissue donors recognized at memorial celebration

Donor and recipient families recently gathered to commemorate those who have transformed lives through organ, eye and tissue donation. Physicians and staff involved in the donation and transplantation process joined the families, Iowa Lions Club members and other guests at the annual spring dedication ceremony which was held in the Iowa Lions Donor Memorial and Healing Garden outside the University of Iowa Hospitals and Clinics.



Kenneth Goins, MD, medical director of the Iowa Lions Eye Bank and cornea surgeon, shares some introductory remarks.



Tony Balik, an artificial cornea recipient, tells his story of regained vision after almost 50 years of being legally blind.

If you are interested in receiving this publication electronically or if you wish to be removed from the mailing list, please send an email specifying your desire to: iowaeyecare@uiowa.edu

Upcoming events

The 2011-2012 Clinical Conference Series

Join us for interesting case discussions and presentations by leaders in the field of ophthalmology and visual sciences. Dates for the upcoming academic year include:

- Nov. 11, 2011 **Cornea and External Disease** – James Chodosh, MD, MPH, Massachusetts Eye and Ear Infirmary
- Dec. 2, 2011 **Retina** – Mark Johnson, MD, Kellogg Eye Center, University of Michigan
- Feb. 3, 2012 **Neuro-Ophthalmology** – Sophia Chung, MD, St. Louis University Eye Institute
- Mar. 2, 2012 **Oculoplastics** – Bitia Esmaeli, MD, FACS, University of Texas MD Anderson Cancer Center
- Apr. 13, 2012 **Pediatric Ophthalmology** – Michael Chiang, MD, Casey Eye Institute, Oregon

- Oct. 21-25, 2011 **AAO, 2011 Annual Meeting**, Orlando
- Oct. 23, 2011 **Iowa Alumni Reception, AAO Annual Meeting**, Orlando
- Nov. 11, 2011 **Ophthalmic Nurse / Technician Conference**, Coralville
- Apr. 19-20, 2012 **Resident and Fellow Research Day**, Iowa City
- May 6-10, 2012 **ARVO 2012 Annual Meeting**, Fort Lauderdale
- June 22-23, 2012 **Iowa Eye Association Annual Meeting**, Iowa City

Check out our website for the latest dates, topics, and event information at <http://webeye.opth.uiowa.edu>



Iowa reception in Orlando

The Iowa Eye Association Alumni Reception at the 2011 AAO meeting will be held on Sunday, October 23 from 6:30pm to 9:30pm at the Peabody Hotel. Join friends and colleagues for an evening of reminiscing and good times.