

# IOWA VISION

## “Indirect Exam”

by Brice Critser,  
CRA, director of  
diagnostic imaging.  
The image received  
1st Place in the  
Clinical Setting Image  
Category at the 2017  
American Academy  
of Ophthalmology  
Annual Meeting.

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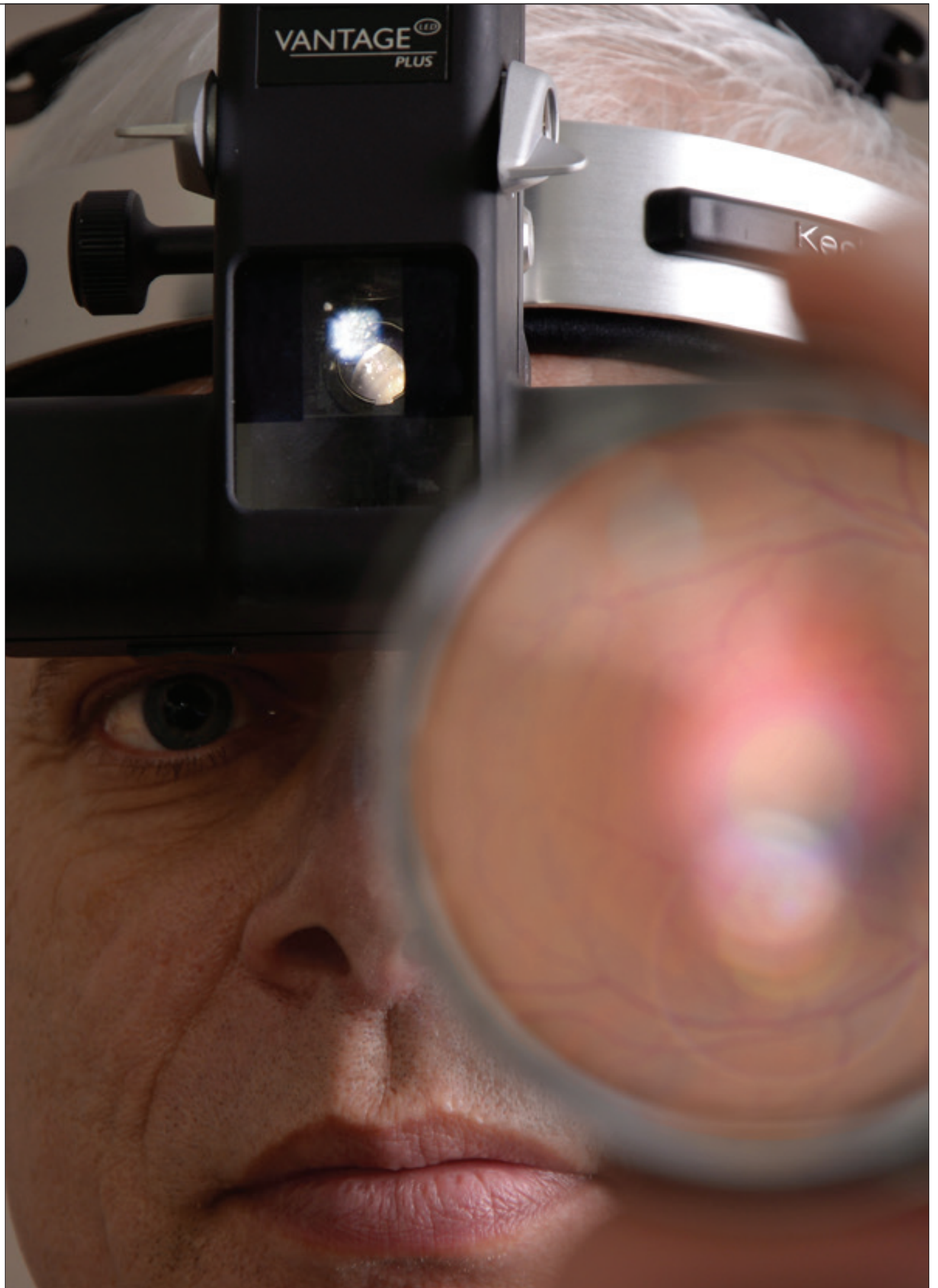
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## IOWAVISION

IOWA VISION is published for alumni, colleagues, and friends of the Department of Ophthalmology and Visual Sciences at the University of Iowa.

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## Department recognized as one of the best

U.S. News & World Report released its 2017-18 rankings for best ophthalmology programs in the United States. The University of Iowa Department of Ophthalmology and Visual Sciences is pleased to remain among the best and listed as No. 6 in this year's ranking. **A complete list of rankings may be found at [usnews.com/besthospitals](http://usnews.com/besthospitals).**

In addition, *Ophthalmology Times*® released its rankings of Best Programs for 2017. Ophthalmology department chairs and residency program directors across the U.S. were surveyed for their views on the best eye programs. The University of Iowa received top marks in all areas of our mission.



## Keeping Hawkeye vision sharp

A group of nearly 100 University of Iowa student-athletes visited the Eye Clinic for vision screening last fall. Golfers, gymnasts, wrestlers, field hockey players, and others were among the Hawkeye athletes who participated. An eye exam was part of the athlete's pre-participation physical examination. Go Hawks!



## DID YOU KNOW?



Ophthalmologists at University of Iowa Hospitals and Clinics performed nearly 11,000 procedures and 4,600 surgeries last year. This includes 1,473 cataract surgeries and 259 corneal transplants.

# At first sight

### PEDIATRIC VISION TEAM SAVES CHILD'S SIGHT FROM CONGENITAL CATARACTS, GLAUCOMA

STORY BY MOLLY ROSSITER

Nathan Marks was born with congenital cataracts, so he and his wife, Jessie, knew their children may be at risk of being born with the same condition.

The Marks' daughter, Penny, was given a clean bill of vision health when she was born. But when doctors couldn't detect son Jack's red reflex—the reddish-orange reflection of light from the eye's retina, observed when using an ophthalmoscope or retinoscope—during a vision screening shortly after his birth in August 2013, Nathan knew what was wrong.

“From the time they said he didn't have that reflection, I knew he had it,” recalls Nathan, of North Liberty, Iowa. “It was just the way they said it, I knew he had cataracts.”

Jessie also could see something was wrong.

“He just wasn't looking at me in the same way Penny did, the way you expect your newborn to look at you,” she says. “I had a really hard time with that.”

Jack's cataract surgeries were done at 5 and 6 weeks old. At 8 weeks old, he started wearing contact lenses. Things went well for the next two months until pressure started building in one of Jack's eyes. Tests confirmed what the doctors suspected: Jack had glaucoma.

“We knew that people who have cataract surgery will have glaucoma at some point in their lifetime,” Jessie says, “but Nathan got it when he was in his 30s. To see Jack with it at 4 months old was scary.”

Jack's parents knew he would need another surgery. **Wallace Alward, MD**, the Frederick C. Blodi Chair in Ophthalmology and director of the glaucoma service, confirmed their fears.

Congenital (present at birth) cataracts aren't common. When very young children, like Jack, have cataract surgery, about half will develop glaucoma. Performing surgery on a young child is more difficult than on an adult, according to Alward.

“There is not room to put a drainage tube in the front of the eye, so we need to remove the vitreous gel and place the tube deep in the eye,” he says. “It takes two surgeons. Dr. [Culver] Boldt removes the vitreous gel and I insert the drainage tube.”

Alward says he and Boldt perform the combined procedure just a few times a year.

“There are not many places in our region that do this—certainly not in Iowa,” Alward says. “We are lucky because Dr. Boldt and I can arrange our schedules to be in the OR together.”

Now a preschooler, Jack wears contacts as well as glasses to help improve his vision. While he may need some minor procedures in the future, Jack's parents don't foresee any significant issues.

“He should be able to drive, and he should be able to play sports. He should be able to do all of those things as he gets older,” Jessie says.

“There are not many places in our region that do this—certainly not in Iowa.”

WALLACE ALWARD, MD



Nathan and Jack Marks

**FDA panel approves gene therapy to treat form of blindness**

A gene therapy proven to improve vision and function for children and adults with a rare inherited blinding eye disease was approved by the U.S. Food and Drug Administration on Dec. 19, making it the first such treatment approved in the United States for an inherited disease and the first in which a new, corrective gene is injected directly into a patient.

University of Iowa professor of ophthalmology **Stephen R. Russell, MD**, worked with Al Maguire, MD, Jean Bennett, MD, PhD, Kathy High, MD, and colleagues from Children’s Hospital of Philadelphia and representatives from Spark Therapeutics in creating the gene therapy that treats certain rare inherited eye disorders that cause blindness. Patients involved in a 2013 clinical trial have maintained improved vision for more than three years.

“All of us in the field of inherited retinal diseases were pleased that the FDA has approved this therapy. While not a cure, the benefits are undeniable and the risks are manageable. We have yet to see a falloff in effect so far,” Russell says.

The therapy, known as Luxturna™ and created by Spark Therapeutics, significantly improves eyesight in patients with a retinal, degenerative disease known as Leber congenital amaurosis, or LCA. LCA is often caused by the mutated gene RPE65. Patients with RPE65 mutations have severe visual impairment from infancy or early childhood that eventually progresses to total blindness in mid-life. About 1,000 to 2,000

people in the United States are affected by the RPE65 genetic mutation of LCA.

The new therapy involves injecting copies of a normal version of the RPE65 gene—the gene responsible for producing a protein that makes light receptors

work—into the patient’s eye. In the final stages of the 2013 clinical trial, patients were directed by arrows through a mobility course in seven different light levels, with the course changing with each change in lighting. The lowest level of light was that of a moonless summer night, and the brightest was that of a well-lit office.

After a year, patients who at first could not maneuver the room were getting through the course with significant improvement, Russell says.

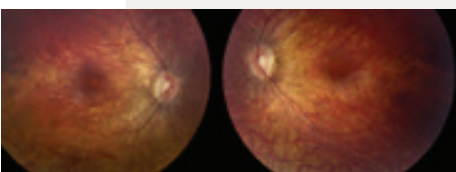


Image from a dilated fundus exam of a patient with Leber congenital amaurosis (LCA), an inherited disorder that progressively leads to blindness.

**UI researchers receive \$18 million grant to study brain disorder**

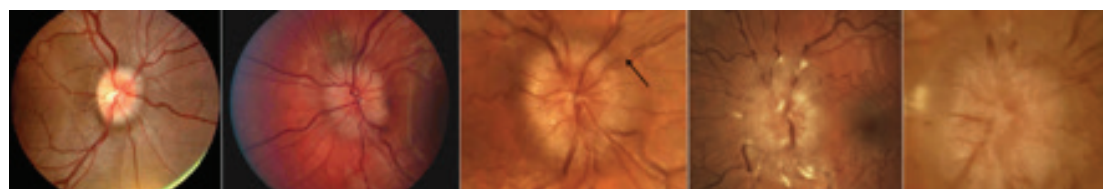
University of Iowa Health Care researchers have received an \$18 million grant to study Idiopathic intracranial hypertension (IIH), a brain disorder that mostly affects young women during their childbearing years.

IIH occurs when the pressure of the fluid that fills the space between the brain and the interior wall of the skull becomes high. Patients with IIH may develop disabling headaches and visual loss that can lead to blindness.

The research trial is called the Surgical Idiopathic Intracranial Hypertension Trial (SIGHT). The study will compare the outcomes of two surgical procedures with maximal medical therapy in IIH patients with moderate to severe visual loss.

The research team includes **Michael Wall, MD**, the study’s principal investigator, **Matthew Thurtell, MBBS, MSc, Keith Carter, MD, Matt Howard, MD, PhD, Randy Kardon, MD, PhD, Jane Bailey, MD**, and **Mona Garvin, PhD**.

Enrollment is scheduled to begin in April of 2018. The grant will run for five years.



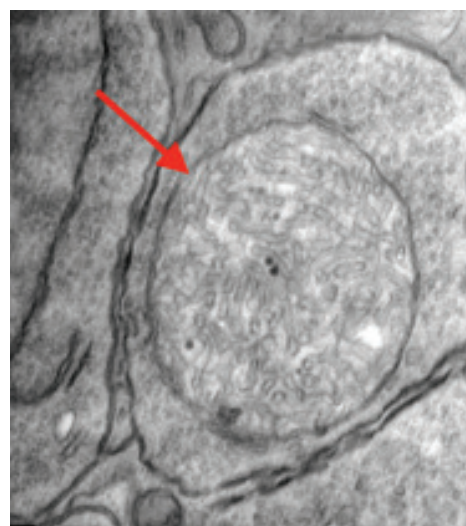
In IIH, papilledema is present in the retinal fundus. These five images represent the five grades of papilledema. Grade I, C-shaped halo with a temporal gap; Grade II, the halo is circumferential; Grade III, loss of major vessels as they leave the disc (arrow); Grade IV, loss of major vessels on the disc; Grade V, partial or total obscuration of all vessels of the disc.

**Researcher notes**

**John Fingert, MD, PhD**, professor of ophthalmology and Hadley-Carver Chair in Glaucoma was awarded a grant from The Glaucoma Foundation to study glaucoma caused by exfoliation syndrome.

The \$60,000 award funds a project to study mitochondrial function (energy production) in cells collected from glaucoma patients. Previous research suggests that abnormalities in mitochondria may contribute to eye disease in exfoliation syndrome. In this project Fingert will examine mitochondria in tiny skin biopsies from clinic patients. Electron microscopy will also be used to investigate mitochondrial structure in exfoliation syndrome.

University of Iowa collaborators on this project include **Lee Alward, MD, Young Kwon, MD, PhD**, and **Robert Mullins, PhD**.



The round organelle filled with membranous structures (cristae) indicated with an arrow in the micrograph is an example of a mitochondrion.

UI researchers use CRISPR engineering to prevent certain glaucoma in mice

STORY BY MOLLY ROSSITER

A University of Iowa-led team of researchers has used the gene editing method called CRISPR-Cas9 to disrupt a mutant gene that is responsible for some forms of glaucoma, one of the most common causes of irreversible blindness.

The study involves the elimination of the mutated myocilin protein from a mouse model of human glaucoma and cultured human cells through the use of CRISPR-Cas9, which can alter DNA sequences and gene function. Mutations in myocilin are implicated in juvenile- and adult-onset primary open-angle glaucoma. In their experiments, researchers found that removing the mutated protein by disrupting the mutant myocilin results in lowered intraocular pressure, which in turn prevents glaucomatous damage to the eye.

“As scientists we don’t want to just discover a diseased gene, we want to understand what the gene does and, in this case, have a better understanding of glaucoma so that it can be more effectively treated,” says **Val Sheffield, MD, PhD**, Carver Chair of Molecular Genetics at the University of Iowa and senior author of the study. “No one knows what this gene does, except that its mutant form causes glaucoma.”

The research is published online in the Oct. 2 issue of *Proceedings of the National Academy of Science (PNAS)*. It is the result of 24 years of collaboration between scientists at the University of Iowa and the North Texas Eye Research Institute at the UNT Health Science Center. Scientists from the McGovern Institute for Brain Research at the Massachusetts Institute of Technology also contributed to the study.

Glaucoma is a common vision and neurodegenerative disorder affecting 3 to 5 percent of people over the age of 40. An early precursor to the most common form of this disease known as primary open-angle glaucoma is high intraocular pressure—fluid pressure inside the eye—that damages retinal ganglion axons at the optic nerve and leads to death of retinal ganglion cells that carry the visual signals to the brain, which can cause blindness.

Myocilin is a protein found in the trabecular meshwork—a part of the eye that regulates intraocular pressure. A mutation in the myocilin gene can cause high intraocular pressure. Scientists found that genome editing using CRISPR-Cas9 to disrupt the mutant myocilin gene prevented production of the mutant protein, which in turn prevented elevated intraocular pressure in mouse eyes, thus totally preventing this human form of glaucoma in mice. In addition, this same genome editing technology eliminated myocilin expression in perfusion-cultured human eyes.

Other UI researchers involved in the study include lead author **Ankur Jain, PhD**, postdoctoral research scholar; **Tasneem Sharma, PhD**, postdoctoral research scholar; **Kevin Bugge**, research technician; **Charles Searby**, research specialist; and **John Fingert, MD, PhD**, professor of ophthalmology and visual sciences. This study also was the culmination of a close research collaboration with investigators at the North Texas Eye Research Institute (NTERI) at the University of North Texas Health Science Center in Fort Worth, including Gulab Zode, assistant professor, and Abe Clark, Regents Professor and Executive Director of NTERI.



**Graduation 2017**



**Graduating residents pictured left to right:**

- Jaclyn Haugsdal, MD** – Iowa Eye Center, Cedar Rapids, Iowa
- Luke Lenci, MD** – Vision Surgery PC, Wichita, Kan.
- Will Flanary, MD** – Eye Health Northwest, Oregon City, Ore.
- Prashant Parekh, MD, MBA** – Retina Fellowship, Cincinnati Eye Institute, Cincinnati
- Steve Christiansen, MD** – Retina Fellowship, Cincinnati Eye Institute, Cincinnati



**Graduating fellows pictured left to right:**

- Harinderpal Chahal, MD** – Fresno Oculofacial Surgery, Fresno, Calif.
- Christine Clavell, MD** – DaVita Medical Group, Albuquerque, N.M.
- Maria Foley, MD** – Pathology Residency, University of Iowa Hospitals and Clinics
- Michelle Boyce, MD** – Midwest Eye Care, Omaha, Neb.
- Johanna Beebe, MD** – Park Nicollet Hospitals, Maple Grove, Minn.
- Jessica Watson, MD** – Maine Eye Center, Portland, Maine
- Jason Kam, MD** – Kaiser Permanente Eye Care, Seattle
- Elaine Binkley, MD** – Retina Clinical and Molecular Research Fellowship, University of Iowa Hospitals and Clinics
- Orwa Nasser, MD, MPH** – Cornea and Cataract Surgery Fellowship, UT Southwestern Medical Center, Dallas
- Shira Simon, MD, MBA** – Visiting Faculty, University of Iowa Hospitals and Clinics (left)



**Orthoptic program graduate**

**Laura Vrablec, CO** – Lurie Children’s Hospital in Chicago

**Scruggs and Beebe selected for research awards**



The P.J. Leinfelder Award for 2017 was given to Johanna Dikstral Beebe, MD (left), and Brittnei Scruggs, MD, PhD, for best fellow and best resident research projects.

**Teaching awards**

Each year medical students and residents select the best teachers. 2017 awardees include:

**Medical Student Teaching Awards:**

- Luke Lenci, MD (Resident)
- Harinderpal Chahal, MD (Fellow)
- Erin Shriver, MD (Faculty)

**Resident Teaching Awards:**

- Jason Kam, MD (Fellow)
- Kenneth Goins, MD (Faculty)



Graduating resident physician **Jaclyn Haugsdal, MD**, was awarded the Stacy Thompson Resident Leadership Award by residency program director Tom Oetting, MD at the 2017 graduation ceremony.

**Class of 2020 first-year residents**



**Pictured left to right:**

**Benjamin Janson, MD**  
BS, Iowa State University, Ames, Iowa  
MD, Johns Hopkins University, Baltimore

**Matthew Benage, MD**

BS, College of the Ozarks, Point Lookout, Mo.  
MD, University of Missouri School of Medicine, Columbia, Mo.

**Austin Fox, MD**

BS, Spring Hill College, Mobile, Ala.  
MHS (in progress), Duke University School of Medicine, Durham, N.C.  
MD, University of South Alabama College of Medicine, Mobile, Ala.

**Anthony Chung, MD**

BS, University of Iowa  
MD, University of Iowa Carver College of Medicine

**Heather Stiff, MD**

BA, Hope College, Holland, Mich.  
MD, The Ohio State University College of Medicine, Columbus, Ohio

**New fellows**



**Sam Abassi, MD – Surgical Retina**

MD, Rush Medical College, Chicago  
Residency, University of California Davis Medical Center, Sacramento, Calif.



**Jane Bailey, MD (’96R) – Neuro-Ophthalmology**

MD, University of Minnesota, Minneapolis, Minn.  
Residency, University of Iowa Hospitals and Clinics



**Christy Cunningham, MD – Medical Retina**

MD, Chicago Medical School, Rosalind Franklin University, Chicago  
Residency, Cook County Hospital, Chicago



**Daniel Feiler, MD – Surgical Retina**

MD, University of Rochester School of Medicine, Rochester, N.Y.  
Residency, Cole Eye Institute/Cleveland Clinic, Cleveland, Ohio



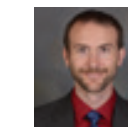
**Tara Wright McGehee, MD – Cornea, External Disease and Refractive Surgery**

MD, Virginia Commonwealth University, Richmond, Va.  
Residency, University of North Carolina School of Medicine, Chapel Hill, N.C.



**Bryce Radmall, MD – Oculoplastics**

MD, University of Utah School of Medicine, Salt Lake City, Utah  
Residency, Casey Eye Institute, Oregon Health & Science University, Portland, Ore.



**Lael Stander, MD – Neuro-Ophthalmology**

MD, University of Iowa Carver College of Medicine  
Neurology Residency, University of Iowa Hospitals and Clinics



**Ze Zhang, MD – Glaucoma**

MD, Yale University School of Medicine, New Haven, Conn.  
Residency, Tulane Medical Center, New Orleans, La.



**Francisca Zuazo, MD – Ocular Pathology**

MD, Facultad de Medicina at Universidad de los Andes, Santiago, Chile  
Residency, Fundación Oftalmológica Los Andes  
Oculoplastics Fellowship, Instituto de Oftamología F.A.P. Conde de Valenciana, Cuauhtemoc, CDMX, Mexico

**Fostering the next generation**

Medical students in the Carver College of Medicine occasionally have an opportunity to collaborate with faculty on various research projects. For second-year medical student **Andrew Goldstein** the mentoring and collaboration with assistant professor of ophthalmology **Mark Greiner, MD**, yielded nice results.

Goldstein received the award for Best Paper of Session at the Cornea and Eye Banking Forum during the American Academy of Ophthalmology annual meeting for his presentation titled “Assessing the Effects of Ripasudil, a Novel Rho Kinase Inhibitor, on Human Corneal Endothelial Cell Health.”

**Danielle Pellack** received the 2017 *John & Anita LaSpina Summer Student Fellowship* from Fight for Sight, a leading vision research organization that provides crucial funding to promising new researchers. Pellack works in the Mouse Glaucoma Genetics Laboratory under the mentorship of **Michael Anderson, PhD**.

**Retina Society recognition**



Surgical retina fellow **Sun Young Lee, MD, PhD**, received the Retina Society Fellowship Research Award in 2017.

## ALUMNI CORNER

### Academy recognition

Congratulations to the following alumni, faculty, and Iowa ophthalmologists for their recognition by the American Academy of Ophthalmology (AAO)!

#### LIFE ACHIEVEMENT AWARD

- **Dennis P. Han, MD** ('86R)
- **Robert C. Kersten, MD** ('78M, '83R, '84F)
- **Marian S. Macsai-Kaplan, MD** ('89F)

#### SENIOR ACHIEVEMENT AWARD

- **Kenneth M. Goins, MD** (current faculty)
- **Alan Kimura, MD, MPH** ('89F, former faculty)
- **Vinay A. Shah, MD** ('06F)
- **Robert W. Weisenthal, MD** ('87F)

#### ACHIEVEMENT AWARD

- **Felix Y. Chau, MD** ('04MD)
- **John J. Chen, MD, PhD** ('13R, '14F)
- **Mina Chung, MD** ('00F)
- **Elise Heon, MD** ('95F)
- **Mansi B. Parikh, MD** ('09F)
- **Rachel K. Sobel, MD** ('13F)

Plus, the AAO Leadership Development Program XX, Class of 2018 includes:

- **Scott A. Larson, MD** ('02R, '03F, current faculty)
- **Jill S. Melicher, MD** ('09F), Bloomington, MN

#### RETINA HALL OF FAME

Several alumni, faculty, and former faculty were recognized in 2017 for their significant achievements in ophthalmology and retina subspecialty. Each is a Charter Inductee of the Retina Hall of Fame.

- **Gary Abrams, MD** ('78F)
- **Christopher Blodi, MD** ('84F, former faculty)
- **Michael Bloome, MD FACS** ('72F)
- **Jerald Bovino, MD** ('78F)
- **David Brown, MD, FACS** ('93R, '95F)
- **Thomas Burton, MD** ('69F, former faculty)
- **James Diamond, MD** ('75F, former faculty)
- **Nicholas Douvas, MD** ('51R, deceased)
- **James Folk, MD** ('82F, faculty)
- **Dennis Han, MD** ('86R)
- **Sohan Hayreh, MD, PhD, DSc** (emeritus faculty)
- **Michael Howcroft, MD** ('82F)
- **Alan Kimura, MD, MPH** ('89F, former faculty)
- **Louis Lobes, MD** ('77F)
- **Andrew Packer, MD** (former faculty)
- **Peter Pavan, MD** ('81F)
- **Robert Watzke, MD** (former faculty)
- **Thomas Weingeist, PhD, MD** ('72MD, '75R, '76F, emeritus chair)

### Other Alumni Notes

- **Marian Macsai-Kaplan, MD** ('89F), is serving as president of the Cornea Society.
- **Brian Privett, MD** ('11R), was elected as secretary/treasurer of the Iowa Medical Society.
- **Jane Redmond, MD** ('90F), was chosen as the first department chair of the newly launched Department of Ophthalmology at Dell Medical School. She is also the inaugural director of the Mitchel and Shannon Wong Eye Institute in Austin, Texas.
- **Erin O. Schotthoeffer, MD** ('06R), became president of Charlotte Eye, Ear, Nose & Throat Associates, P.A., a large multi-specialty group with over 100 providers.
- **William Whitson, MD, FACS** ('87F), of Whitson Vision was recognized as a 2017 Top Doctor in Indianapolis, Ind.

**Congratulations to our alumni and colleagues for their accomplishments and dedication on behalf of the field of ophthalmology. If you receive a special award or distinction, let us know. Email us at [iowaeyecare@uiowa.edu](mailto:iowaeyecare@uiowa.edu)**

### Remembrances

- **Brian E. Conner, MD** ('77R), died on Oct. 27, 2016, in Salina, Kan.
- **Gunter Von Noorden, MD** ('60R, Former Faculty), died on Feb. 19, 2017, in Houston Tex.
- **Richard A. McKay, MD** ('56MD, '63R), passed away in Davenport, Iowa on Feb. 22, 2017.
- **Aditya V. Mishra, MD** ('93F), died on Aug. 4, 2017, in Halifax, Nova Scotia.
- **Bernard J. Mansheim, MD** ('43MD, '53R), passed away on Aug. 10, 2017, in LaCrosse, Wis.
- **Bruce E. Golden, MD, FACS** ('70R, Former Faculty), died on Sep. 25, 2017, in Chicago



### Iowa Eye Annual Meeting and Alumni Reunion

Thank you to all who joined us for the 2017 Iowa Eye Annual Meeting and Alumni Reunion! Attendees had a great time connecting with colleagues and friends.

**Additional photos from the meeting and reunion activities may be found at [iowaeyalumni.shutterfly.com](http://iowaeyalumni.shutterfly.com).**

Mark your calendars for the next Iowa Eye Annual Meeting & Alumni Reunion on June 8-9, 2018. We are preparing an outstanding educational program and social event for comprehensive ophthalmologists and subspecialists alike. Distinguished speakers include:

- **David T. Tse, MD** ('82F), Bascom Palmer Eye Institute, Miami, Fla. (Alson E. Braley Lecture)
- **Kathleen Digre, MD** ('87F), Moran Eye Center, Salt Lake City, Utah (Women in Ophthalmology Lecture)
- **Tamara Fountain, MD**, Ophthalmology Partners, Deerfield, Ill. (Wolken Ethics Lecture)

Complete event and registration information will be posted on our website.



### AAO reception a hit!

Thanks to the all who joined us in New Orleans at our Iowa Eye Alumni Reception! We enjoyed a fabulous evening catching up with alumni and friends at the National WWII Museum. **Images from the reception and previous events are posted online at [iowaeyalumni.shutterfly.com](http://iowaeyalumni.shutterfly.com).**

Thank you to the alumni and area ophthalmologists who continue to support the Iowa Eye Association! Dues provide vital support of the training program and the educational resources we make available to future ophthalmologists and broader ophthalmology community.

If you have yet to make a dues contribution and would like us to send you another dues notice, please let us know. Alternatively, you may use our secure online option for dues payment at [iowaeye.org](http://iowaeye.org).

Contact Joe Schmidt at 319-384-8529 or [joe-schmidt@uiowa.edu](mailto:joe-schmidt@uiowa.edu).

# Investing in quality people

STORY BY BEN FROTSCHER

For much of his life, Robert Brightfelt, of Lake Forest, Illinois, has dealt with some form of vision loss. A routine visit to his optometrist, though, brought him some frustrating news.

“My local eye doctor told me that I had an issue related to my cornea, but he also said I didn’t qualify for a tissue transplant,” says Robert. “I was too young, and the condition wasn’t serious enough.”

As the years passed and Robert’s eyesight continued to diminish, he struggled to find a solution. After talking with his neighbor, **Jim Whiteley** (’62BSME, ’64MS), Robert decided to join him for an eye appointment at University of Iowa Hospitals and Clinics. “I ended up meeting with Dr. Mark Greiner and his team,” says Robert. “They looked me over, diagnosed my vision problem, and told me they could fix it.”

Robert had Fuchs’ dystrophy, an eye disease in which cells lining the inner surface of the cornea slowly start to die off. Because of Robert’s significant vision loss—his eyesight had slipped to

20/700—he needed two corneal transplants. Four months and two transplants later, Robert’s vision has been completely restored.

“It’s been a life-changing experience,” says Robert, who, prior to the surgeries, struggled to watch TV or enjoy sports such as golf. “When your eyesight slowly gets worse, you forget what sight looks like. Now it’s nearly perfect—20/20 in the left eye and 20/25 in the right eye.”

“Throughout my entire experience at Iowa, I’ve found that Dr. Greiner is not only a good surgeon, but the entire department—from top to bottom—is a well-run machine. Medical environments aren’t always well-run machines, but it’s a uniquely different experience at Iowa.”

Because of the vision-saving care he received from UI Hospitals and Clinics, Robert and his wife, Joell, have made a \$1 million gift to establish the *Robert and Joell Brightfelt Professorship in Cornea*. The Brightfelts’ professorship will support a faculty member who is focused on cornea research, education, clinical care, and surgery.

“As I saw Dr. Greiner work and learned more about the things they might be able to accomplish in the future, I knew this was a perfect match for what my wife and I wanted to support. Dr. Greiner and his team are doing great things at Iowa, and I’m very grateful for, and appreciative of, how Iowa has helped me.”



Robert and Joell Brightfelt posed for a photograph with cornea specialist Mark Greiner, MD.



Robert visited the Eye Clinic for a follow-up examination following two corneal transplants that restored his vision.

## Funding excellence in vitreoretinal training

The history of the Retina and Vitreous Service in the Department of Ophthalmology and Visual Sciences is rooted in excellence. In 1962, the department grew with the addition of the Retina Fellowship program, which has trained over 100 fellows so far.

Alumni are critical partners in continuing the work of the service. **Amin Kherani, MD** (’00F), has made a financial commitment to the Retina Fellowship Fund and is offering to match gifts made to that fund by other former fellows, up to \$25,000. By supporting the retina fellowship program with generous acts of philanthropy, our alumni can advance the learning and futures of each retina fellow at the University of Iowa.

“It is a passion to aid and advance the surgical training for vitreoretinal fellows at the University of Iowa,” says Kherani.

Retina fellowship program director **Elliott Sohn, MD**, believes this fund will provide critical resources for each retina fellow’s training. In the past this fund has exposed our fellows to things like surgical wet labs and surgical education videos. According to Sohn, “Additional support will benefit each retina fellow’s surgical training, travel costs associated with continuing education, tools, and techniques for improved patient care. A fully supported fund will create an abundance of resources and time that will allow our fellows to exhaust all opportunities to become the best retina physicians in the world.”

To learn more about supporting the Retina Fellowship Fund, contact **Sara Volz** at [sara.volz@foriowa.org](mailto:sara.volz@foriowa.org) or 319-467-3761.



Ronald W. Pelton, MD, PhD, FACS (left), delivered the inaugural Wolken Ethics Lecture during the 2017 Iowa Eye Annual Meeting. The lecture series was created through the generosity of Stephen and Sue Wolken (center) and their son and daughter-in-law, Mark Wolken and Jennifer Huber. Steve and Mark both completed their residencies in Ophthalmology at the University of Iowa.

To learn more about how philanthropic support helps advance the work of the University of Iowa Department of Ophthalmology and Visual Sciences and Institute for Vision Research, please contact:

SARA VOLZ [sara.volz@foriowa.org](mailto:sara.volz@foriowa.org)

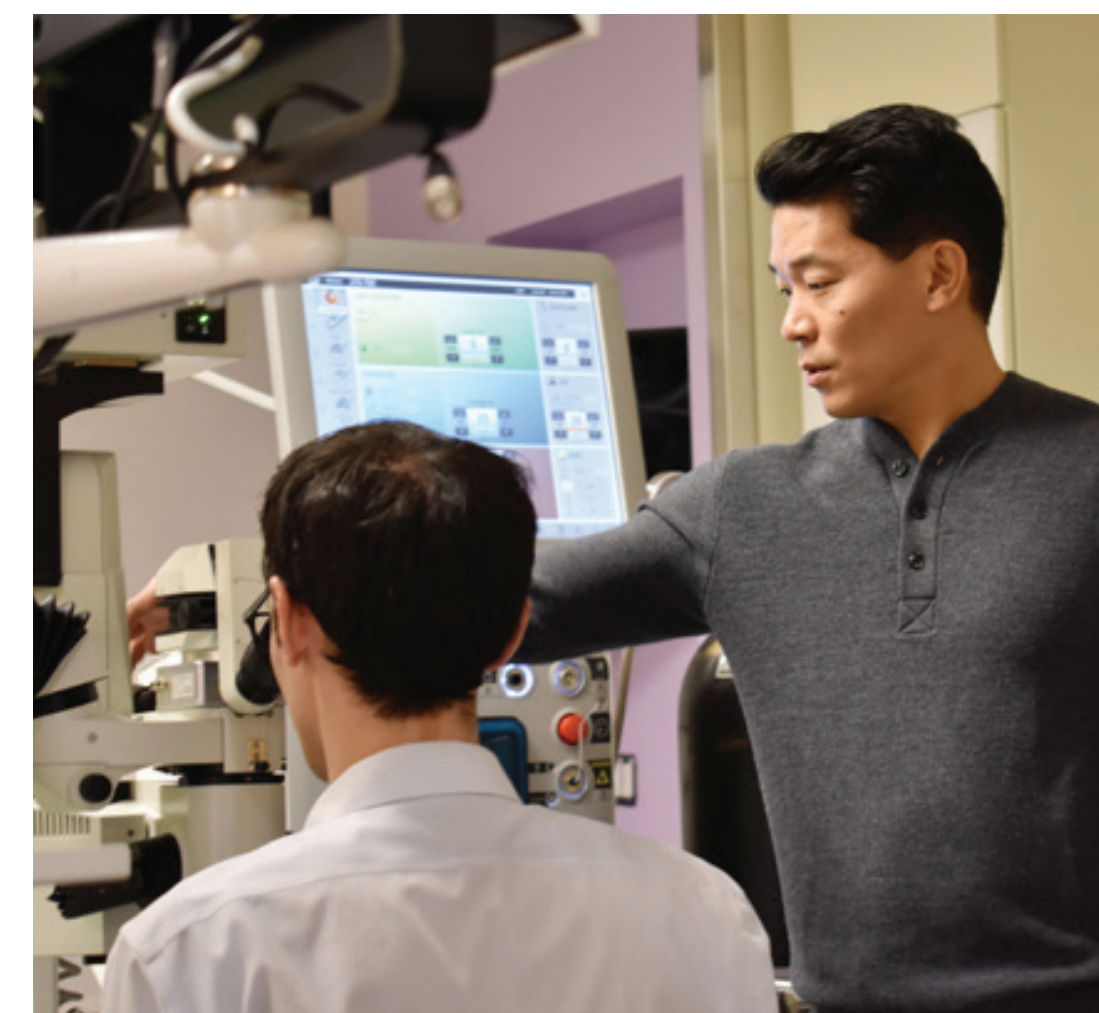
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The UI acknowledges the University of Iowa Center for Advancement as the preferred channel for private contributions that benefit all areas of the university. For more information or to make a donation in support of the eye program, visit the secure website at [givetoiowa.org/eye](http://givetoiowa.org/eye).

If you do not want University of Iowa Health Care to contact you for fundraising efforts based on your status as a patient, please contact the University of Iowa Hospitals and Clinics Privacy Officer at 1-800-777-8442.





**Carter takes the helm at AAO**

Department chair **Keith Carter, MD, FACS**, was received as incoming President of the American Academy of Ophthalmology (AAO) during the Academy's annual meeting.

The AAO is the world's largest association of eye physicians and surgeons representing a community of 32,000 medical doctors.

Images courtesy of American Academy of Ophthalmology



Dr. Boldt accepts the award from former Vice President of Medical Affairs Jean Robillard, MD (left).

**Boldt recognized as Clinician of the Year**

University of Iowa Physicians presented their 2017 *Clinician of the Year Award* to **H. Culver Boldt, MD**, professor of ophthalmology and director of the Ocular Echography service. The award is given to a clinician who most embodies those aspects of a truly great patient service provider, including technical skill, humanism to patients and families, collaboration with colleagues, and advocacy.

"All those who work at UI Hospitals and Clinics realize we have many outstanding clinicians in this institution. There are some really outstanding clinicians who have received this award in the past, and I am truly honored to even be mentioned in the same breath as these other fine clinicians," remarks Boldt.

To learn more about Dr. Boldt's approach to patient care, visit UI Health Care's YouTube page at [youtube.com/user/uihealthcare](https://www.youtube.com/user/uihealthcare) and search on the term "Boldt".

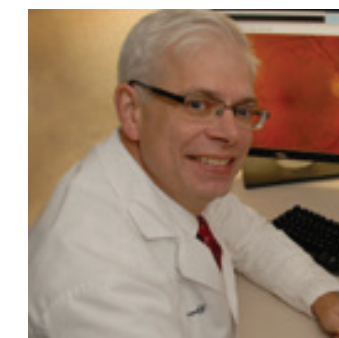
**Faculty additions**



**Nathaniel Sears, MD**, joins the Glaucoma Service as a clinical assistant professor of ophthalmology. Sears comes to UI Hospitals and Clinics after completing a Glaucoma Fellowship at the UCLA Stein Eye Institute. He received his medical degree from Case Western Reserve University School of Medicine in Cleveland and completed residency training at the Cole Eye Institute-Cleveland Clinic.



Also joining our faculty is **Audrey Ko, MD**, clinical assistant professor of ophthalmology in the Oculoplastics, Orbit and Reconstructive Surgery Service. She returns to Iowa City where she completed her medical degree at the University of Iowa Carver College of Medicine. Ko completed residency training at the University of Miami Health System Bascom Palmer Eye Institute and an Ophthalmic Plastic and Reconstructive Surgery Fellowship at University of California San Diego, Shiley Eye Institute.



**Physician-scientist briefs Congress**

**Michael D. Abramoff, MD, PhD**, the Robert C. Watzke, MD, Professor of Retina Research, participated in two Congressional briefings last October to discuss how research spurs the economy.

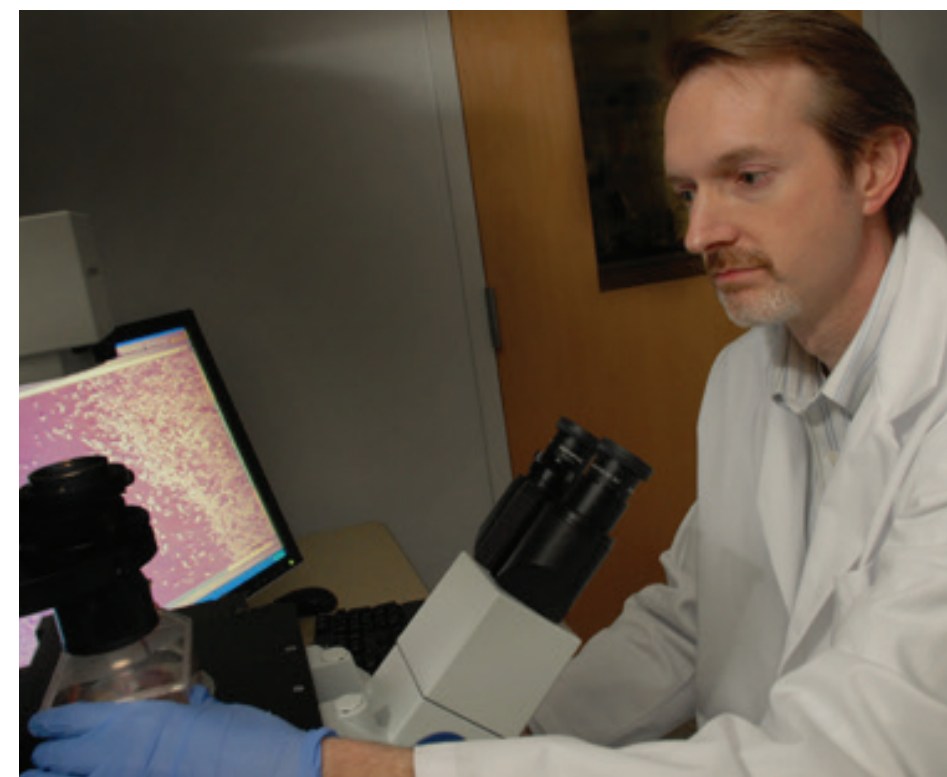
Abramoff and his Iowa City-based company, IDx, an early stage medical diagnostics company that uses artificial intelligence (AI), joined a panel of companies that were spun out of U.S. research universities. He discussed new technology that he and collaborators developed that enhances the detection of eye disease in people affected by diabetes.

**Research to Prevent Blindness supports research and researchers**

The Department of Ophthalmology and Visual Sciences has received an unrestricted grant from Research to Prevent Blindness (RPB) in the amount of \$115,000 per year for five years. The funding was awarded based on a thorough review of criteria, including the department's research activities, laboratory environment, and clinical and scientific staff.

"Discretionary funds for innovative research projects are essential to our understanding of the causes of eye diseases and development of new treatments. RPB's support allows us to expand our vision research and leverage our success in future efforts," states **Keith Carter, MD**, department chair.

RPB also awarded the inaugural *RPB David F. Weeks Award for Outstanding AMD Research* to **Robert F. Mullins, MS, PhD** (right), Martin and Ruth Carver Chair in Ocular Cell Biology and director of the Chorioretinal Degenerations Laboratory. Mullins presented a talk at the Association of University Professors of Ophthalmology Annual Meeting entitled "Recent Insights into the Immune System in Age-Related Macular Degeneration."



"The Gene Doctors," a video special on PBS, follows the lives of families impacted by hereditary diseases and doctors seeking new treatments through genetic medicine. The program features research taking place at the University of Iowa under the direction of Dr. Edwin Stone.

Watch online or check your local listings for viewing. [pbs.org/the-gene-doctors/home/](https://www.pbs.org/the-gene-doctors/home/)

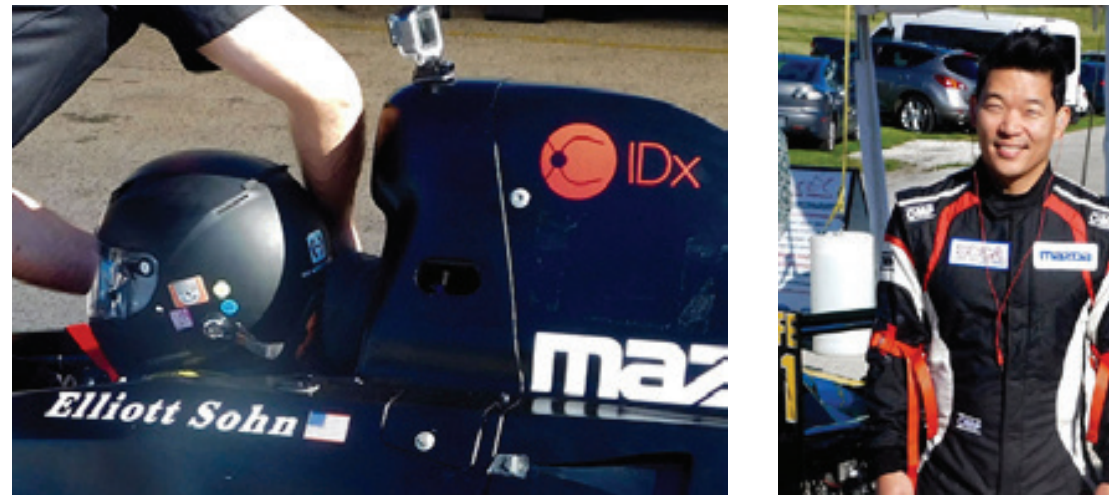


Dr. Sohan Singh Hayreh enjoyed a surprise piece of birthday cake with Dr. Ed Stone (center), Dr. Randy Kardon (right), and others. He turned 90 years old and remains active in the clinic and department's academic mission.

# SPOTLIGHT: Elliott Sohn, MD, an eye for fast cars

**Elliott Sohn, MD**, enjoys taking a break from being an ophthalmologist and helping to help raise awareness of vision research in a unique way: race car driving.

Intertwining his two worlds—vision research and racing—is what Sohn loves. His race car is decorated with Hawkeye symbols and promotes the University of Iowa Institute for Vision Research. When he travels to races, Sohn meets people from around the country, and he talks to them about the UI and the research the institute is doing.



Elliott Sohn, MD, raced last October at the Indianapolis Motor Speedway. He competed in the 2017 Sports Car Club National Championship Runoffs in the Formula Enterprise class. Through his racing efforts, Sohn is able to raise awareness of the research that the UI Institute for Vision Research is conducting.



### What do you do here at the hospital?

“I do a mix of things, but my appointment is in ophthalmology as a retina specialist. I also teach and lead the fellowship training programs in medical and surgical retina. The rest of the time I’m in the lab doing research on various retinal conditions, from common diseases like diabetes and age-related macular degeneration to rare, inherited retinal diseases. With a world class team at the Institute for Vision Research, I work with mouse models and perform pig surgeries to evaluate gene and stem cell treatments to cure these inherited disorders. We plan to bring treatments that we’re testing in these animals to humans because we are just starting to be able to correct people’s genetic mutations in the eye.”

### What about racing cars.

“It was another UI physician who told me I should come out to the track with him one day with my street car, three years ago, so I went out there and it was really interesting, and very scary, because, you know, you’re trying to learn something that’s inherently dangerous—but I really enjoyed it. After completing a three-day race school, I’m now racing against people who’ve been doing this for decades; I’ve done six or seven races now and made it to the podium in three. I qualified to do the national championship winner-take-all race at the Indianapolis Motor Speedway, which is one of, if not the, most famous tracks in the world, so I’m really excited for that.

“There’s an element of risk to it, but at this point it’s like learning an instrument, a sport, or eye surgery. You’re constantly taking in information and tweaking things, and it’s a skill you’re continuously trying to improve—and to me that’s what’s fun. So even though I enjoy it, it’s still just a hobby.

“The thing that really makes me happy is that I got permission from the UI to put the Hawkeye on the car, the quintessential University of Iowa symbol, and I have vision research as a label on the car. Every race people ask me about the research that we do and what’s going on at Iowa, and it’s great to be able to share our work with them and how it can impact them now and in the future. People come from all over the country to these races and some of them are broadcast on TV and/or streamed on the internet, so it’s really cool to bring something I do every day at work to my hobby.”

### What are the benefits of that kind of exposure?

“Now with social media, when I can put up a picture of my car and have the people around me with our custom race shirts on, they get to see vision research and the Hawkeye logo, which draws new people in and generates interest to Iowa and our research that wasn’t necessarily there before.”

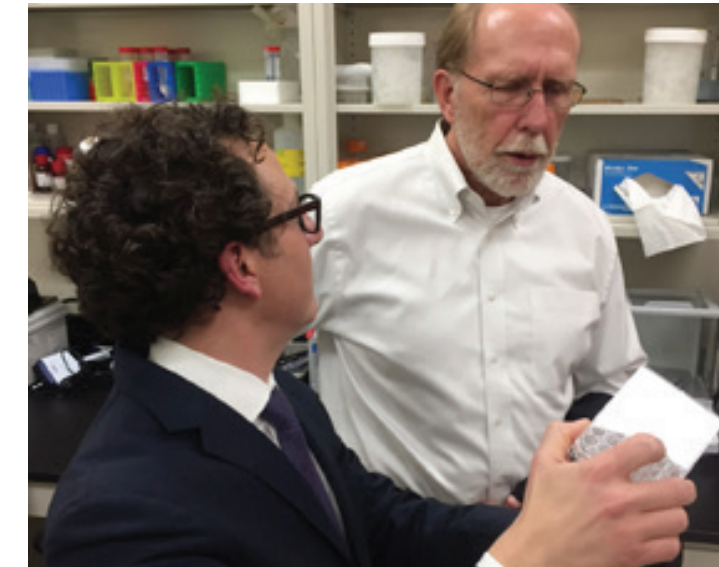
### How did you get interested in racing cars?

“I had zero interest in racing cars as a kid. I always liked doing things fast though, like riding my bike, as I never liked walking; I just had to get places fast. I had interacted with Buddy Lazier, a former Indy racer, and the only race he does every year is the Indy 500 because he’s older now. I’d say a big part of getting into racing was just interacting with him

and having him encourage me to stop using my normal street car and buy a race car because it’s much safer and cheaper. I don’t really watch racing that much due to time constraints, so it’s just about getting out there and being able to do it. It wasn’t

something that I dreamed of doing when I was little or anything, but I’m still young so am taking advantage of that.”

Follow Dr. Sohn’s high speed pursuits at [Facebook.com/SohnRacing](https://www.facebook.com/SohnRacing).



### Congressman visits Iowa Lions Eye Bank

U.S. Rep. Dave Loebsack (D, Iowa Second District) stopped by the Iowa Lions Eye Bank to learn more about corneal transplantation and research. Associate medical director Dr. Mark Greiner explained how the Eye Bank preserves and restores sight through cornea tissue transplantation. He also highlighted important research that explores the safety and efficacy of diabetic corneal tissue.



### The view from Iowa

The sky was partly cloudy last Aug. 21 but many individuals still took a few moments to view the solar eclipse. While not in the path of totality, Iowa City did experience a slight darkening of the sky and dip in temperature. Specially designed glasses were offered to Eye Clinic staff and patients to promote eye safety, of course.



### Sharing vision research with Veterans

Vision researchers from the VA Center for the Prevention and Treatment of Visual Loss and the University of Iowa were on hand to meet with veterans at the National Disabled Veterans TEE Tournament held in Iowa City last September.

**Michael Anderson, PhD** (right), investigator of the VA Center and professor of ophthalmology, discussed his research involving intraocular pressure and the molecular genetics of glaucoma.



## CONTACT US

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800-777-8442

### UI Consult for referring providers:

800-322-8442

### Department news, events, and information:



[medicine.uiowa.edu/eye](http://medicine.uiowa.edu/eye)



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Department of Ophthalmology  
and Visual Sciences

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## UPCOMING EVENTS



Join alumni and colleagues for our  
**Iowa Eye Annual Meeting  
and Alumni Reunion.**

This year's event is scheduled for  
**Friday and Saturday,  
June 8–9, 2018.**

See page 9 for more information.

### OPHTHALMOLOGY CLINICAL CONFERENCES

- |                      |  |
|----------------------|--|
| <b>March 2, 2018</b> | <b>Cataract / Comprehensive (Wolfe Foundation Lecture)</b><br>– Susan MacDonald, MD, Tufts University School of Medicine |
| <b>April 6, 2018</b> | <b>Oculoplastics</b> – Don Kikkawa, MD, FACS, UC San Diego Shiley Eye Institute  |
| <b>Sep. 14, 2018</b> | <b>Neuro-Ophthalmology</b> – Speaker pending   |
| <b>Oct. 12, 2018</b> | <b>Cornea and External Disease</b> – Mark Mannis, MD, UC Davis Eye Center  |
| <b>Nov. 9, 2018</b>  | <b>Glaucoma (Armaly Lecture)</b> – Claude Burgoyne, MD, Devers Eye Institute   |

### OTHER EVENTS

- |                             |  |
|-----------------------------|--|
| <b>April 27–28, 2018</b>    | <b>UI Carver College of Medicine Alumni Reunion Weekend</b><br>(Classes of '48, '53, '58, '63, '68, '73, and '78), Iowa City |
| <b>April 29–May 3, 2018</b> | <b>ARVO Annual Meeting, Honolulu</b>   |
| <b>May 11, 2018</b>         | <b>Resident and Fellow Research Day</b> , Iowa City  |
| <b>May 25, 2018</b>         | <b>20th Annual Iowa Optometric Conference</b> , Iowa City  |
| <b>June 8–9, 2018</b>       | <b>Iowa Eye Annual Meeting and Alumni Reunion</b> , Iowa City  |
| <b>June 28, 2018</b>        | <b>Resident and Fellow Graduation</b> , Hancher Auditorium, Iowa City  |
| <b>Aug. TBD, 2018</b>       | <b>11th Annual Midwest Eye Research Symposium</b> , Iowa City  |
| <b>Oct. 20, 2018</b>        | <b>UI Carver College of Medicine Alumni Homecoming Tailgate</b> , Iowa City  |
| <b>Oct. 27–30, 2018</b>     | <b>AAO 2018 Annual Meeting and Iowa Eye Alumni Reception</b> , Chicago   |