It is personal
Strengthening research that hits close to home

Physician Adam Schwalje, MD, and audiologist Viral Tejani, AuD, share a passion for patient care and research involving hearing loss. The pair also shares a connection and interest in the condition that is personal.

Schwalje had hearing aids at 3 years old, the cause of his hearing loss likely a congenital one. He relied on a strong support network while growing up, which helped him deal with his hearing loss. Despite his condition, he grew up playing musical instruments, received a doctor in musical arts degree, and even performed and taught music while living abroad in China. His love of teaching and desire to help others led him to medical school, while his personal history of hearing loss initially interested him in otolaryngology as a medical specialty.

“Dealing with my own hearing loss was an important part of my life and made me who I am,” remarks Schwalje, whose research focuses on music and language perception in cochlear implantees.

Tejani has also worn hearing aids since age 3 and is familiar with the effects of hearing loss from firsthand experience. As he grew up, he became aware of the accommodations that can be made for individuals who are deaf or hard of hearing (D/HH). He stresses the roles of support groups and self-advocacy on behalf of D/HH individuals in academic, social, and workplace environments.

“Certainly managing hearing loss from a medical and audiological perspective is important,” Tejani notes. “But it’s not the entire picture. I also tell patients about available social support systems.

“Deaf scientists” continues on page 4
LOU&D CLEAR RESEARCH NEWS & AWARDS

Key funding awarded to startup

The National Institutes of Health (NIH) awarded a Small Business Innovation Research (SBIR) Phase II award to iotaMotion, a medical device startup company co-founded by professor of otolaryngology Marlen Hansen, MD, FACS, and otolaryngology resident physician Chris Kaufmann, MD, MS.

iotaMotion is currently developing a robotic-assisted cochlear implant insertion system, which will provide precise and controlled electrode advancement during hybrid cochlear implant surgeries. Solutions will standardize implant insertion and expand access to cochlear interventions for surgeons and patients with the goal of providing individualized hearing loss treatment.

“We are very pleased to have received this Phase II SBIR grant totaling nearly $1.5 million,” says Kaufmann. “The funds will be used to support our research and development efforts around our next-generation technology, IOTA-Progress. The IOTA-Progress implantable robotic system will provide an unprecedented level of control during and after cochlear implant surgery.”

“Our first goal is to provide a much more controlled, fine insertion of the electrode compared to what is now capable. This should significantly enhance our ability to preserve hearing,” says Hansen. “Then we have what this grant is helping to fund for our company, which is the development of an implantable system that would allow us to adjust the position of the electrode within the cochlea after the original surgery, without further surgical intervention. The goal here is to optimally position the electrode within the cochlea to best match that patient’s hearing, which often changes over time.”

The SBIR program provides early-stage capital to domestic small businesses engaged in research and development with the potential for commercialization. In 2017, the NIH will invest more than $925 million into companies whose work aligns with the institute’s mission of improving health and saving lives. The grant program is highly competitive, with only 15 percent of applications successfully funded.
MORL: Sharing is caring

The Molecular Otolaryngology and Renal Research Laboratories, or MORL, focuses on non-syndromic hearing loss and complement-mediated renal disease. One of the lab’s primary goals is to provide to clinicians caring for patients and families with these conditions the most accurate and comprehensive genetic testing available today. To achieve this goal, the MORL has developed and implemented a multidisciplinary approach that integrates a set of tools to determine the clinical significance of genetic variations.

The lab turned to the internet to share its latest findings and discoveries, and to discuss the molecular genetics of deafness in the era of genomics and precision medicine. A webinar held earlier this spring and viewed around the world was hosted by Hela Azaiez, PhD, research scientist in the MORL. In addition to discussing the latest research, Azaiez showcased case studies, which highlight the genetic and phenotypic complexities of hereditary deafness. Watch online at: labroots.com/webinar/deafness-genomic-era-discoveries-challenges-opportunities

Two informational videos depicting the research and clinical work of the MORL have also been produced and are available online.

For clinicians: MORL: At the Forefront of Precision Medicine for Hearing Impairment
morl.lab.uiowa.edu/deafness

For researchers: MORL: Revolutionizing Genetic and Genomic Research for Hearing Loss
morl.lab.uiowa.edu/deafness-research

“We are in the golden era of genomics. More and more clinicians and patients are turning to genetics to understand the molecular cause of disease and explore treatment options. Open access to genetic research findings is fundamental not only to advancing science and medicine but most importantly to improving patient care.”
– Hela Azaiez, PhD

Research award explores brain activity

Research resident Andrew Liu, MD, PhD received a Flexi Grant from Action on Hearing Loss, a UK-based organization dedicated to helping people with deafness, tinnitus, and hearing loss. This type of grant provides funding for a range of valuable small-scale activities that will strengthen hearing research in new and unexpected ways to benefit people with hearing loss, tinnitus, or other hearing-related conditions.

The project, titled “Neural correlates of speech understanding and listening effort: simultaneous electroencephalography (EEG) and electrocorticography (ECoG) in normal hearing subjects,” explores how the brain deals with difficult or noisy listening environments when perceiving speech, which is often a challenge for hearing-impaired individuals with hearing aids or cochlear implants.

Liu and his collaborators will collect pilot data in normal hearing subjects to compare activity in early sensory processing, such as the auditory cortex, and higher-order language areas, such as the frontal cortex. Results will contribute to a larger effort to better understand the perceptual, cognitive, and brain differences between normal hearing listeners and post-lingually deafened cochlear implant users.

“Ultimately, by understanding how the brain adapts to the changes in the input signal from hearing loss or cochlear implantation, we can better target treatment strategies for these individuals and, ultimately, improve their quality of life,” says Liu.
That feeling that you are not alone dealing with hearing loss is powerful.” Tejani’s academic journey followed a different path than Schwalje’s but led to the same destination at University of Iowa Hospitals and Clinics. He has an undergraduate degree in engineering and considered medical school before pursuing audiology as a medical field. Clinical audiology offers him a chance to help patients, while his research involving cochlear implants allows him to utilize his engineering background.

EXPANDING ACCESS

In addition to treating patients and seeking answers to scientific questions, the two share a desire to increase opportunities in the medical sciences for individuals affected by hearing loss. After attending an Association for Research in Otolaryngology meeting, the two friends became involved in HI-ARO, which is a community of Deaf and Hard of Hearing scientists from academic and research settings who are interested in auditory science and are also D/HH themselves. The group was established in 1992 and seeks to collaborate on scientific questions, strengthen career opportunities, and advocate for more accessibility in research settings.

According to Schwalje, “There can be a lot of accessibility issues for deaf and hard of hearing scientists. Historically, it has been difficult, I think, for the D/HH to make inroads into scientific and medical communities. This group is able to bring people with shared experiences together, to share ideas on how to become more involved as leaders in that community of scientists and medical professionals, and find ways to participate in scientific discussions at meetings.”

Increasing accessibility at meetings and in work settings is a major focus of the group. By removing barriers to participation and collaboration through computer-aided real-time transcription, hearing loop technology, and amplified telephones that work for the D/HH, there are greater chances for success. Social support within the medical and scientific community is important, too.

“A big thing to me is advocacy and making things easier for the D/HH to participate and be integrated,” shares Schwalje. “It can feel like there is no hope, you’re not good enough, or you don’t belong, but the truth is, there is hope, you are good enough, and you do belong.”

Professional networking is another priority of the group, say Schwalje and Tejani. The two have found that mentorship opportunities exist among scientists, but there is a growing need for more. They are pushing to expand the community of D/HH scientists beyond the auditory sciences by including high-school and college level students.

“I would like to expand the mentorship aspect by pairing more mentors and mentees. To me, this is a way of passing forward the experience and benefits I have had from being involved as a clinician-scientist and mentee,” shares Tejani.
Planting the seed

For many young physicians and researchers starting academic careers, funding to help get their research off the ground is often hard to come by. Having seed funds to pursue pilot projects and collect early-stage data is crucial to securing larger grant funding from competitive sources such as the National Institutes of Health.

This challenge was familiar to Linda Gage-White, MD, PhD (’84R), an alumnus who pursued a career in academic medicine after residency training in the Department of Otolaryngology—Head and Neck Surgery. Upon graduating from the University of Iowa, Gage-White went on to join the faculty at LSU Health Shreveport in Louisiana and enjoy a long career in academic medicine and private practice. She recalls feeling well-prepared from residency.

“I realized as a new practitioner that there was very little I hadn’t heard or seen from my training days at Iowa. The depth of training I received really helped me develop my career.”

During the initial years of her academic career Gage-White received a grant for early-stage research through a special fund that had been created from a generous donor. “I know how important it is when just starting out. You need data and seed funding to get the larger NIH grants.”

The idea of seed funding for early-stage research took root and recently blossomed when Gage-White decided to establish the Linda Gage-White, M.D., Ph.D. Faculty Support Fund through a bequest gift. The fund will be used to support junior faculty members early in their career who need financial assistance in their research or clinical projects.

She views her giving as a way of supporting an academic legacy beyond the legacy she leaves behind through those she trained. “I benefited from a similar type of gift when I was getting started in my career. This is simply my way of paying it forward.”

Gage-White also supported the establishment of the Brian F McCabe Distinguished Chair of Otolaryngology – Head and Neck Surgery through philanthropic giving. McCabe played a key role in her pursuing residency and was chairman during her time at the University of Iowa.

“Linda was a great fit and really helped shape my career. I still enjoy the Iowa reunions and seeing the people I’ve gotten to know over the years.”

– Linda Gage-White, MD, PhD (’84R)

Highlighting the impact of giving

The University of Iowa and University of Iowa Hospitals and Clinics celebrated the role philanthropy plays in sustaining academic excellence during Phil’s Day. “Phil” — short for philanthropy — has a direct impact on the patient care, education, and research taking place in the Department of Otolaryngology—Head and Neck Surgery.

Areas of the clinic and department that have been impacted by support from grateful patients, alumni, and other generous donors were decorated with yellow ribbons, posters, and placards. Our “Phil” supports us as a continuous top 10 nationally ranked ENT program. Thank you.

For Iowa. Forever More. Fundraising campaign concludes

The Department of Otolaryngology—Head and Neck Surgery recently completed a successful fundraising campaign that netted $8.7M for research, education, and patient care. Over 980 donors comprised of grateful patients, alumni, former and current faculty members, and other friends of the department contributed during the campaign, which started in 2008. Eleven new endowed funds along with two new professorships were established during the effort.

Thank you for the generous support of our mission!

The University of Iowa Foundation

There are many ways to make a difference through charitable donations. To learn more about how philanthropic support helps advance the important work of the UI Department of Otolaryngology—Head and Neck Surgery, please contact:

Sean Matthys
Associate Director of Development
University of Iowa Foundation
319-467-3649 or 800-648-6973
sean-matthys@uiowa.edu

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, visit the UI Foundation’s secure website at givetolowa.org/OTO.
The 2017 graduates

Residents and fellows who graduated from the University of Iowa this year are off to pursue their next medical career moves.

Graduating residents (pictured left to right):

- **Nathan Schularick, MD**: pursuing private practice position at Ear, Nose, and Throat Specialty Care of Minnesota in Minneapolis
- **Jonathan Fowlkes, MD**: remaining at University of Iowa Hospitals and Clinics for a Head and Neck Surgical Oncology Fellowship
- **Danielle Liudahl, MD**: joining the Iowa Clinic in West Des Moines, Iowa
- **Joshua Tokita, MD**: pursuing public health position at the Alaska Native Medical Center in Anchorage
- **Abraham Sheffield, MD, PhD**: remaining at University of Iowa Hospitals and Clinics for a Pediatric Otolaryngology Fellowship

Fellows:

- **Iram Ahmad, MD**: Pediatric Otolaryngology Fellow: joining faculty at Stanford Medicine in Palo Alto, California
- **Christopher Kandl, MD**: Head and Neck Oncology Fellow: joining faculty at Virginia Commonwealth University in Richmond, Virginia

New colleagues

Residents:

- **Megan Foggia, MD**
  BS, Biology, University of Nevada, Reno
  MD, University of Nevada, Reno School of Medicine

- **Elyse Hanly, MD, PhD**
  BA, Biology, Washington University in St. Louis
  MD, PhD, New York Medical College, Valhalla, New York

- **Amanda Njouajio, MD**
  BS, Microbiology, Michigan State University, East Lansing, Michigan
  MD, Indiana University School of Medicine, Indianapolis, Indiana

- **Kristen Seligman, MD**
  BA, Program of Liberal Studies, University of Notre Dame, Notre Dame, Indiana
  MD, University of Iowa Carver College of Medicine

- **Ryan Smith, MD**
  BS, Pre-medical with biology emphasis, Bob Jones University, Greenville, South Carolina
  MD, University of South Carolina School of Medicine, Columbia, South Carolina

Fellows:

- **Jonathan Fowlkes, MD**
  Head and Neck Surgical Oncology
  MD, Oregon Health & Science University School of Medicine Residency, University of Iowa Hospitals and Clinics

- **Abraham Sheffield, MD, PhD**
  Pediatric Otolaryngology
  MD and PhD (Genetics), University of Iowa Carver College of Medicine
  Residency, University of Iowa Hospitals and Clinics

ALUMN CORNER

Alumni from the University of Iowa were recognized by the American Academy of Otolaryngology—Head and Neck Surgery.

**D. Bradley Welling, MD, PhD (’88R)**, received the 2017 Presidential Citation. Welling is chief of otolaryngology at Massachusetts Eye & Ear Infirmary. The award honors his representation as an ideal academic physician.

Photo courtesy of American Academy of Otolaryngology – Head and Neck Surgery

**Remembrances**

**Raymond Yourd, MD (’53R)**, passed away on Dec. 11, 2016, in Grove City, Pennsylvania

Receive a special award or distinction? Change your contact information lately? Let us know so we can share department news and keep in touch. Send details to iowaoto@uiowa.edu
Residency classmates return to UIHC

A pair of resident alumni have joined the faculty at University of Iowa Hospitals and Clinics. Class of 2016 residents Jarrett E. Walsh, MD, PhD, and Scott R. Owen, MD, have returned to start their academic careers.

After finishing residency training, Walsh completed a fellowship in advanced rhinology and anterior skull base surgery at the University of Miami. Owen pursued a fellowship in facial plastics and reconstructive surgery at Vanderbilt Medical Center in Nashville, Tennessee.

Both physicians will see patients at the main hospital clinic and UI Health Care – Iowa River Landing location.

Faculty departures

Douglas Henstrom, MD, clinical assistant professor of otolaryngology and director of the Facial Nerve Center, has left to pursue a private practice opportunity in Utah.

Michael Karnell, PhD, associate professor of otolaryngology, retired from the University of Iowa. Karnell specialized in speech pathology and treated patients in the Speech and Swallowing Clinic.

Department continues top five ranking

U.S. News & World Report released the 2017-18 rankings for best programs for ear, nose, and throat with UI Hospitals and Clinics remaining among the five best in the nation.

“A providing our patients with the best clinical care possible is always a top priority to our physicians and staff. We are pleased to receive the recognition for our efforts to deliver the best outcomes,” says department chair Bruce Gantz, MD.

Silver and gold anniversaries

The 25th Annual International Conference on the Management of the Tinnitus and Hyperacusis Patient took place this past June. The conference, led by Richard Tyler, PhD, covered the current evaluation and management strategies for the treatment of tinnitus. Attendees ranged from otologists, audiologists, hearing aid specialists, nurses, and other health care professionals to patients and their family members.

Another anniversary in the department was the 50th Head and Neck Cancer Reconstructive Surgery Course held last May. Residents from several otolaryngology training programs joined ENT specialists for a multiday course focused on the treatment of head and neck cancer. Guest speakers included alumnus Mark J. Jameson, MD, PhD (’07F), who is associate professor of otolaryngology at the University of Virginia.

Cycling to beat cancer

Family, friends, and colleagues of Marlan Hansen, MD (circled) joined him for a day of cycling through rural Iowa. The group rode for a good cause by peddling in the 2017 Courage Ride. The annual ride is dedicated to improving the lives of those affected by sarcoma. Proceeds go to the University of Iowa Sarcoma Research Program at the UI Holden Comprehensive Cancer Center. Abraham Sheffield, MD, PhD (’17R, current fellow) and Alex Claussen, MD (R-3 resident) were among the riders that spanned several UI departments.
LOUD&CLEAR EVENTS

Mark your calendars

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<th>Date</th>
<th>Event</th>
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<tr>
<td>Sept. 10-13</td>
<td>AAO-HNSF Annual Meeting &amp; OTO Experience, Chicago</td>
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<tr>
<td>Sept. 10</td>
<td>Iowa Alumni Reception, Swissôtel Chicago</td>
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<td>Oct. 6-7</td>
<td>UI Carver College of Medicine Alumni Reunion, Iowa City</td>
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<td>(Classes of '82,'87, '92, '97, and '07)</td>
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<td>May 18-19</td>
<td>Functional Endoscopic Sinus Course, Iowa City</td>
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<tr>
<td>May 21-25</td>
<td>51st Head and Neck Cancer Reconstructive Surgery Course, Iowa City</td>
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<tr>
<td>June 8-9</td>
<td>UI Carver College of Medicine Alumni Reunion, Iowa City</td>
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<td>(Classes of '48, '53, '58, '63, '68, '73, and '78)</td>
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<td>June 14-15</td>
<td>26th Annual Management of the Tinnitus Patient, Iowa City</td>
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<td>June - TBD</td>
<td>Research Day and Resident/Fellow Graduation, Iowa City</td>
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<tr>
<td>July 2 to August 3 (pending)</td>
<td>Basic Science Course, Iowa City</td>
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Educational meeting information with dates and details can be found at medicine.uiowa.edu/oto/education/conferences-and-events.