As a professional photographer of sports events and concerts, David Sherman spends much of his working hours in loud arenas with blasting music and cheering fans. So when he started experiencing hearing loss in his left ear, he attributed it to his line of work for more than 20 years.

Wearing a hearing aid certainly helped, until Sherman started having trouble hearing even while wearing it. On a couple occasions, Sherman wouldn’t be able to hear at all, so his audiologist adjusted the device. When it happened again, she had a hunch that there was more going on than a faulty hearing aid.

An MRI revealed a benign skull base tumor called a vestibular schwannoma. Also known as an acoustic neuroma, it’s a slow-growing tumor that grows around three nerves that run from the inner ear to the brain. Its presence can cause hearing loss, tinnitus, and dizziness.

The tumor took Sherman by surprise. “Other than hearing loss, I had no other symptoms,” he says. “I could not feel the tumor and I didn’t have any problems with balance.”

His otolaryngologist, Robert Silver, M.D., referred Sherman to the University of Minnesota to consult with specialists who focus on schwannomas. Silver, himself an alumnus of the U’s medical school and residency program, calmed Sherman. He shared information about how schwannomas are usually treated and his regard for the expertise of Meredith Adams, M.D., and Stephen Haines, M.D.

Adams, a neurotologist who specializes in skull base tumors, and Haines, a neurosurgeon, walked Sherman through his options, including doing nothing, having surgery, or treating the tumor with gamma knife radiation therapy. Sherman decided he wanted the pea-size tumor removed before it inflicted additional damage.

During the nine-hour surgery, Haines and Adams gained access to the tumor through the back of Sherman’s head. They removed it along with the involved vestibular and auditory nerves. His hearing in that ear already was significantly compromised, so he was comfortable losing what was left.

Post-surgery, Sherman did need physical therapy to contend with balance issues. But overall, he recovered pretty quickly. After walking as much as possible and regaining strength, Sherman was back at work six weeks after surgery, doing the job he loves.

He can’t say enough about his experience at the U and the medical care provided by Drs. Adams and Haines. They gave Sherman complete confidence in their care. “I never felt like any question was left unanswered. And whether it was Dr. Adams, Dr. Haines, the fellows—no one ever rushed me,” he says. “The care on the floor at the hospital was great and the staff was outstanding.”

Sherman was never more grateful when he got that first clear MRI showing that his tumor was completely gone. He will have follow-up MRIs for the next few years, but odds are extremely high that the schwannoma will not return.

“I’m sorry that I had to be Dr. Adams and Dr. Haines’ patient, but I’m glad I was their patient,” he says. “To think that they drilled a hole in my head and pulled out a tumor the size of a pea and nothing has grown back—I just marvel at that. They enabled me to continue my career and do the things I love to do—working, being with my family, and enjoying my life. I’m just so indebted to them.”
This past academic year has been another year of growth and productivity for the faculty and residents in the department. Two of our graduating residents will be starting practice as general otolaryngologists, and two will enter academic fellowships. Bob Yang will be practicing locally with Allina, and Qi Zhang will be moving to Northern California. Hannah Qualls will be starting a pediatric otolaryngology fellowship at Cincinnati Children’s Medical Center, and Nick Wirtz will be at University of Pittsburgh Medical Center for a Head and Neck Oncologic Surgery Fellowship.

Our neurotology fellow Beth Kelly will be starting academic practice as an assistant professor at Boys Town National Research Hospital in Omaha, NE. Our pediatric otolaryngology fellow Mallory O’Neil is still choosing between multiple options at the time of publication. We wish these special individuals the best in their very promising careers.

We have matched an amazing group of young residents and new fellows, and we will introduce them to you in our next newsletter. I am proud to tell you that our training programs continue to attract the best and the brightest, as our residency and fellowship positions remain highly sought after.

The first phase of the Wilson History Project, which is documenting the over 125-year history of the department, is drawing to a close. I hope that all of you interested in the department’s history will take the time to look at the remarkable timeline and interviews on the webpage, https://www.ent.umn.edu/about/department-history.

We just completed a highly successful CME event in the spring for primary care providers, run by Sofia Lyford-Pike and a great partner in the community, Dan Yoon. Samir Khariwala hosted a successful 9th Midwest Head & Neck Consortium this spring, and Manuela Fina and Meredith Adams will be holding a very large, international endoscopic ear surgery course this fall. We welcome all alumni to our events of course!

Notes From the Chair

Vladimir Tsuprun, PhD

Uncovering the mysteries of the ear

Trained in molecular biology and biophysics, Vladimir Tsuprun applies his expertise and knowledge to discovering the mysteries of human temporal bones and otitis media, or middle ear infections. Tsuprun, Sc.D., Ph.D., has been a research scientist at the University of Minnesota since 1992, when he emigrated from Russia.

First joining the University in the cell biology department as a postdoctoral associate, Tsuprun worked on analyzing the structure of proteins, viruses, and other biological elements. He became a research associate in the Department of Otolaryngology in 1996, eventually joining the Otopathology Lab started by Michael Paparella, M.D.

There, Tsuprun researched how otitis media affects the pathology of the middle and inner ear, as well as hearing loss, inflammation, and the body’s immune defenses. He also studied acoustic trauma and its impact on hair-cell bundles and hearing, abnormal bone growth in the middle ear, and other ear diseases like tympanogenic meningitis.

An assistant professor of Otolaryngology–Head and Neck Surgery since 2006, Tsuprun engages in a broad body of research. He focuses on vaccines to prevent otitis media infections caused by pneumococcus bacteria and the many pathologies that affect human temporal bones. With one of the largest collections of these bones in the country, Tsuprun aims to investigate the anatomy and changes that occur in the middle and inner ears from ear diseases.

Tsuprun specializes in analyzing structures on a cell level, using electron microscopy, computer image analysis, and other technology. He finds it satisfying when his research leads to new strategies for preventing or treating diseases like Meniere’s, otitis media, and congenital sensorineural hearing loss, where hair cells in the inner ear or nerve pathways are damaged.

“I have done research all of my life. I like the process of research and I find research interesting,” says Tsuprun. “Now I’m working on human temporal bones, doing pathological studies of the ear structure. It’s very complicated and the organization is interesting, I like it because it’s related to a lot of diseases in the ear.”

Grow a Legacy in Maroon and Gold

You have deep roots at the University of Minnesota Department of Otolaryngology. You can continue to nurture your area of interest at the U far into the future with a planned gift:

- Naming the department as a beneficiary of retirement assets or life insurance
- Gifts that provide an income to you or others
- Bequest in a will or trust

For more information, contact U of M Foundation development officer Sarah Barsness: 612 625 5976 or sbarsnes@umn.edu

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John Farquhar Fulton, MD, PhD

What’s in a name? The new University Outpatient Clinics and Surgery building is on Fulton St. The records coordinator of the City of Minneapolis confirms that the name honors Dr. John F. Fulton and first appears in the 1885 City Directory and the 1887 Minneapolis Atlas. The street had originally been platted as 1st St SE.

Dr. Fulton was born in York County, Pennsylvania in 1856. He grew up only 30 miles from Gettysburg, where he recalled hearing the guns of the famous Civil War battle. His family was related to the Robert Fulton who invented the steamboat. Dr. Fulton attended the York College Institute and earned his MD degree from the University of Pennsylvania in 1880. He did post graduate studies at the Wills Eye and Ear Hospital in Philadelphia and also earned a PhD. He married Edith Stanley Wheaton and, after visiting Minnesota for a medical meeting, they moved to St. Paul in 1882. He took over the practice of the late Dr. Francis Atwood. A son of the same name attended Yale and Oxford, earned an MD degree, and became well known for his scholarship in neurophysiology, aeromedical science and history of science and medicine.

Dr. Fulton practiced both Ophthalmology and Otology. He was one of the founders of the St. Paul Medical College, was on the faculty of the Minnesota Hospital College, and was elected the first president of the Minnesota Academy of Medicine in 1887. He was behind the transfer of medical charters from Twin Cities medical colleges that formed the University of Minnesota School Of Medicine in 1888. He was on the founding medical faculty of the school and its first professor of Ophthalmology and Otology.

The 1894 University of Minnesota Catalog lists Dr. Fulton as Professor of Ophthalmology, Otology, and Hygiene, which he taught in the college of Medicine and Surgery and also Hygiene in the School of Pharmacy. He was joined by W.S. Laton, MD, Professor of Nose and Throat and Frank Allport, MD, Clinical Professor of Ophthalmology and Otology. Courses were given to 3rd year medical students. There were 186 men and 13 women in the College of Medicine and Surgery. The College of Homeopathy was still in existence at the University and enrolled thirteen men and four women.

The 1899-1900 Catalog now revealed the association with Frank C. Todd, MD, Professor of Ophthalmology and Otology, Dr W.S. Laton, MD, Professor of diseases of the Nose and Throat, and J.E. Schadle, MD, Clinical Professor of Diseases of the Nose and Throat. These positions preceed departmentalization of the Medical School in 1909. The catalog describes the Dr. Fulton’s course in Hygiene: “This course is elective and consists of lectures and recitation upon personal, domestic, and public hygiene. It includes the study of hygienic conditions of the earth, air, and water, and the cause of their contamination. It treats of food stuffs and their adulteration. It deals especially with the relations of the subject to bacteriology.” 2 hrs. per week over 8 weeks, 3rd year (page 234). Didactic lectures were given mostly by Todd and Fulton. Clinical rotations were at the City Hospital, St. Luke’s, St. Joseph’s, and the Free Dispensary in St. Paul, and at the City Hospital, St. Mary’s, St. Barnabas, and Asbury hospitals in Minneapolis. This catalog shows 341 students of which 23 were women.

Dr. Fulton continued to donate his time as a teacher after departmentalization (Dr. Todd was the first Chairman), he had a busy private practice in St. Paul, and was involved in medical organizations (second president of the Minnesota Academy of Ophthalmology and Otolaryngology among many others). He was highly regarded as a teacher and clinician and considered a visionary. He died in 1932.

The author wishes to thank Joua Her for her research helpful to this article.

International Symposium: Endoscopic Ear Surgery and Current Advances in Otology

Date: September 14-15, 2017
Location: DoubleTree, 511 Huron Boulevard, Minneapolis, MN 55414
For more information and registration: http://z.umn.edu/otology

Endoscopic Ear Surgery, Eustachian tube dilation procedures and new imaging modalities are changing the way we treat patients with ear disease. With enriched knowledge and improved surgical access, we are moving to the New Era of “functional ear surgery” with focus on structure preservation and decreased rate of invasive approaches.

The most prominent international experts and researchers in the field of endoscopic ear surgery and contemporary otology are gathering to present, discuss and explore the current dilemmas in treating ear disease through focused lectures, mini-seminars and interactive round table discussions.
Richard Chole, MD: A Full Career

During a nearly 40-year career as an otolaryngologist and research scientist, Richard Chole, M.D., Ph.D., has paired two of his great loves: treating patients with ear diseases and making discoveries about those conditions to help patients even more.

“The opportunity to help patients is really the most rewarding thing. So is the idea that our research might lead to discoveries that could help further,” says Chole, an otolaryngology professor at Washington University in St. Louis. “As a physician you get to help people in the immediate term, correcting things with surgery and treatment; as a scientist your findings might help another generation of doctors help their patients.”

Chole got his start at the University of Minnesota, where he completed his residency in otolaryngology in 1977. He also earned a doctorate in otolaryngology/anatomy and biochemistry, setting himself up to dive into research. Chole returned to his native California to join, and then eventually lead, the University of California–Davis Department of Otolaryngology.

When Washington University came calling in 1998, Chole found it appealing because of its focus on ear diseases and hearing loss. He served as department chair for more than 15 years and still treats patients with varied ear conditions, from chronic ear infections to Meniere’s disease, as well as doing cochlear implants and middle ear reconstructions.

“It’s a very rewarding practice where we can help a lot of people with ear problems,” he says. “Many of my patients have chronic problems and hearing problems for their whole life. I get to know my patients very well and it becomes like a family. I enjoy that part of the practice. I love doing research, surgery, and training residents on how to do ear surgery.”

For his own research, Chole studies cholesteatoma, a middle ear disease that results from ear infections and causes the destruction of the ear drum and hearing bones. He developed an animal model for investigating the condition in 1980 and has been working on the disease ever since. His work discovered how cholesteatoma destroys bone, how infections take root, what bacteria cause the infections (blame pseudomonas), and how they evade antibiotics.

“I love the discovery of research,” says Chole. “It gives you the opportunity of seeing something new and learning something that no one has ever known before.”

At 72, Chole isn’t planning on retiring any time soon, even though he has numerous hobbies that keep him busy. A self-described classic car nut, Chole loves to refurbish vintage cars. He also does woodworking, nature and underwater photography, scuba diving, and loves traveling and visiting his children and grandchildren. “I really enjoy the practice of medicine and treating patients,” he says. “It’s a real privilege to be a doctor and build relationships with patients.”

Seth Janus, MD

Giving back to his training grounds

With his own residency in otolaryngology in the not-too-distant past, Seth Janus, M.D., wanted to give back to the program that trained him so well. Along with a busy practice as an otolaryngologist at Regions Hospital and Health Partners in St. Paul, Janus serves as director of University of Minnesota’s residency program for Otolaryngology–Head and Neck Surgery.

“I had a really positive experience being a resident here,” says Janus, who graduated from the University of Minnesota Medical School in 2002 and completed his residency at the U in 2007. “I feel like I can still relate to what it’s like to be a resident and help advocate for them and make the process less painful.”

Janus first served as assistant director and then took over about seven years ago, keeping the program running smoothly. He helps shape the curriculum and didactic sessions, sets up rotations at the program’s six sites, and ensures that they are educational. Janus aims to help residents through the highs and lows of training while making sure the program prepares them to tackle complicated cases and tough problems when they complete their residencies.

“The training is very hard and difficult, and everybody has bumps in the road. I try to be supportive and help people find the way they are going to learn best,” Janus says. “We have a rigorous program. It puts people in situations where they are going to be pushed to learn and take care of difficult and complex problems so that when they are done they will be ready. But at the same time, we support residents through the challenges of a program like that.”

Janus gravitated toward otolaryngology during a medical school rotation when he interacted with physicians who seemed so happy and enthusiastic about their work. He finds that hallmarks of the University’s residency program are how strongly faculty support residents’ education and how engaged they are in teaching them. It’s something Janus strives to continue fostering in the program.

Having come out the other side to practice medicine, Janus now enjoys putting into action the lessons he learned as a resident. He appreciates the all-encompassing residency he experienced—giving him in-depth experience Continued on next page
Holly Boyer, MD
On a mission to make a difference

Holly Boyer, M.D., is a University of Minnesota lifer. After undergraduate and medical school at the University, she happily matched to the otolaryngology program for her residency and never looked back. Except for a brief stint in private practice, Boyer has spent more than 20 years at the U doing what she loves.

An associate professor, Boyer has a wide-ranging role that spans taking care of patients, doing research, serving as a medical director, and advising medical students. As one of 11 advisors, Boyer guides a group of 12-15 medical students from their first year through to graduation.

“I’m very proud of and engaged in the clinical work I do, and I really enjoy working closely with the residents and medical students,” Boyer says. “I just loving being here, at the medical school and with University of Minnesota Physicians. The people have the same mission I do. I love working with other people in the department who want it to be successful, who pitch in and do what you have to do to make it happen.”

Taking care of patients is the heart of her work, and Boyer specializes in nasal and sinus issues, as well as skull base surgery. She is deeply involved in research, having earned a master’s degree in clinical research after returning to the U in 2007. During her master’s program, Boyer developed a new treatment protocol for people with hereditary nosebleeds called hereditary hemorrhagic telangiectasia, also known as Osler-Weber-Rendu disease.

Boyer wrote a grant and secured funding for a randomized, controlled clinical trial in 2013. Along with colleagues, Boyer safely modified a sclerotherapy treatment for varicose veins to treat the chronic nosebleeds. Physicians inject a solution into the nose to eliminate blood vessels causing the nose bleeds, which drastically reduces their frequency.

“These patients have horrible nose bleeds and their life is very unpredictable because of that,” Boyer says. “It’s been fulfilling for me because patients describe the treatment as life-changing. Others have come from around the country and around the world to learn how to do the procedure.”

Boyer enjoys collaborating with other specialists for the benefit of patients. Currently, she does research and clinical work with others in the pulmonary and microbiology departments on sinus-nasal disorders stemming from cystic fibrosis. They are seeking better treatments that prevent damage from infections.

“I just loving being here, at the medical school and with University of Minnesota Physicians. The people have the same mission I do. I love working with other people in the department who want it to be successful, who pitch in and do what you have to do to make it happen.”

“Clinical work continues to be a good mix-


Mark Your Calendar

**Monday, May 1, 2017**
Paparella Lecture
Howard Francis, MD, MPH, FACS
*Psychosocial Determinants of Cochlear Implant Outcomes in Older Adults*
PWB 8-335

**Saturday, June 3, 2017**
Lions D-Feet Walk
MN Landscape Arboretum
Chaska, MN

**Friday, June 16, 2017**
Department Graduation
Bruce Gantz, MD
Lions Research Building Conference Room
Banquet - North Oaks Golf Club

**Monday, August 14, 2017**
IHF Golf Classic
Crystal Lake Golf Club
Lakeville, MN

**Monday, August 28, 2017**
Adams Lecture
Ashok Shaha, MD, FACS
PWB 8-335

**Monday, September 11, 2017**
Boies Alumni Reception
Location: TBA
Chicago, IL