

# ENT UPDATE

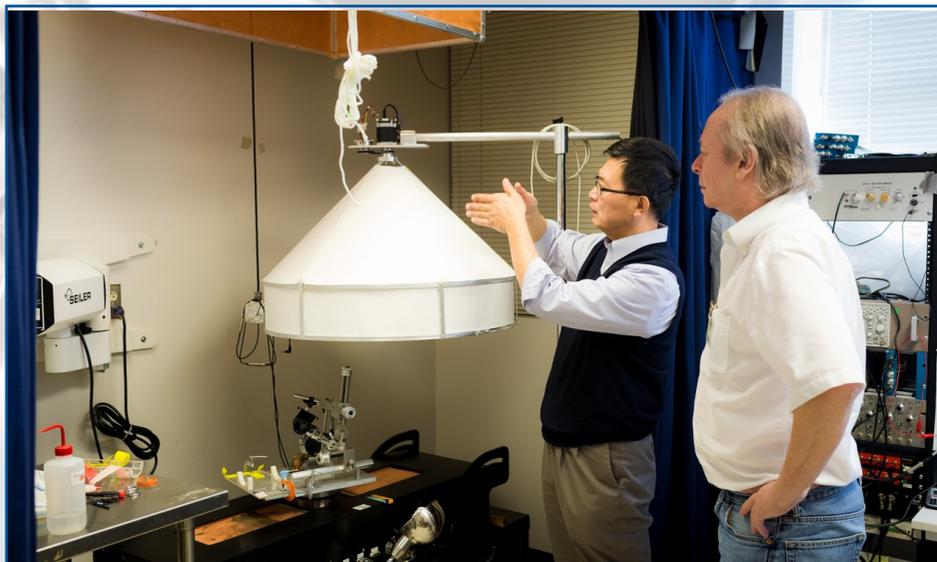
DEPARTMENT OF OTOLARYNGOLOGY & COMMUNICATIVE SCIENCES AT THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

## *Retrospective: An interview with Wu Zhou, Ph.D.*

Research faculty member, Wu Zhou, Ph.D., celebrated two milestones this fall. He reached 25 years of service at UMMC and received the prestigious Platinum Medallion Award for reaching \$5,000,000 in extramural award monies at UMMC. Over his impressive career, Dr. Zhou's research has advanced understanding in the field resulting 48 papers and 105 presentations. His labs have given countless residents and other learners important exposure to standard research protocols and reporting in the areas of balance and eye movement control. He has received grant awards from the NIH, NASA and the American Hearing Research Foundation allowing the department to rank among the top otolaryngology departments for federal funding over the last decade.

As a high school student in China in the 1980s, Dr. Zhou was fascinated by science and math. In 1984, a famous American scientist visited Zhou's hometown as a part of one of the first US-Chinese exchange programs after China began opening itself up to the outside world. Zhou recalls, "He spoke about the potentials of neuroscience, genetics and artificial intelligence. 35 years later, these are still the hottest areas of research. As a high school senior, I was fascinated by the pictures he painted of the future. I decided to study biology with a focus on neuroscience."

Zhou was accepted to a neurosciences Ph.D. program at the University of Rochester following his biology degree from the University of Science and Technology of China.



*Dr. Wu Zhou and analyst, Jerome Allison*

At Rochester, he began working on eye movement control in animals with his mentor, Dr. Mike King, who eventually brought him to UMMC in 1993. He joined the faculty of the Department of Surgery, Division of Otolaryngology, in 1999.

During his tenure at UMMC, Zhou and wife, Hong Zhu, M.D., Ph.D., completed various funded studies on sound activation of the vestibular systems in rodents. Their results improved the clinical VEMP test and led to prestigious collaborations with researchers across UMMC and the country, including at Harvard. The translational implications of studying genetic- and trauma-induced vestibular disorders may lead to improved recognition of the specific and sensitive biomarkers of vestibular disorders important for understanding disease progression and treatment efficacy.

When asked about the importance of research training in otolaryngology residency, Zhou noted the rapid technological advancements requiring physicians to grasp new approaches more quickly. Since new information is presented in the format of research reports and acquired using standard research protocols, physicians with research experiences will have an advantage in understanding the results and incorporating them into their own practices. As Zhou and his team make important discoveries, he also gives future otolaryngologists valuable skills to provide their patients with excellent care. ■

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## Chairman's Message

During this holiday season, we extend our warmest wishes for a wonderful time with your family and friends

and a fulfilling new year. This season of giving and thanks reminds me to recognize the amazing community service provided by our faculty, learners, and staff. Service projects carried out in this year alone include participation in:

MS Food Network

MS Special Olympics Winter/Spring Games

Oral Head and Neck Cancer Screening  
Ronald McDonald House

MS Special Olympics Summer Games

UMMC Employee Hearing Screenings

Back-to-School hearing screenings

Brandon Back-to-School Bash

Jonestown Annual Health Fair

This spirit of giving back to the community is also demonstrated by the outstanding devotion to patient care and teaching that our team exhibits each and every day.

As highlighted in this issue, our residents continue to perform at an outstanding level as evidenced by their regional and national presentations along with the receipt of prestigious fellowship positions. We just heard that our most recent graduates all passed their written boards keeping the residency's 100% board pass rate on track. We also recently learned that we will be the host of the regional resident training bootcamp for all otolaryngology programs in the mid-South area. This is based on the great work that Drs. Gina Jefferson and Andrea Lewis have put into developing our annual simulation course. I also wish to commend two of our research faculty Dr. Wu Zhou and Dr. Brad Walters on the receipt of institutional research awards recognizing their success in obtaining external funding for their work.

I will close with usual reminder to contact me directly 601.941.6169 for any questions, concerns, or suggestions you wish to share. We are proud to have the opportunity to serve you, your patients, and our learners.

Scott P. Stringer, M.D., M.S.  
Professor and Chairman  
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# Department News and Highlights

- Our annual Simulation Bootcamp took place August 18th. Instructors included Drs. Eric Bridges, Claude Harbarger, Lana Jackson, Gina Jefferson, J. Randall Jordan, Christopher Lee and Scott Stringer. Residents Lauren Buck and Erin Smith assisted in this morning-long bootcamp that introduced our PGY1 and PGY2 residents to common ORL procedural consultations and instrumentation.
- Our department participated in the Jonestown Health Fair on Saturday, September 8th. This event featured oral, head and neck cancer screening, hearing screening, eye exams, and blood sugar testing to those who otherwise wouldn't have access.
- Audiology faculty and externs participated in the Annual Mississippi Early Hearing Detection and Intervention Conference on October 17th. This conference provided education and networking opportunities for families of children with hearing loss, health care professionals and early interventionists.
- UMMC's Excellence in Research Awards ceremony was held October 25, 2018. This annual ceremony recognizes faculty members for their achievements in gaining outside funding. Congratulations to Dr. Wu Zhou, recipient of a platinum level award, and Dr. Bradley Walters, recipient of a bronze level award.
- Medical student Drew Morgan has been awarded a funding for the Full Option Medical Student Research Program (MSRP) in Dr. Christopher Spankovich's lab. The requirements for acceptance into the Full Option MSRP are not easy to achieve. We commend Drew and Dr. Spankovich for this award.
- We were honored to welcome Dr. James C. Denny, III, Executive Vice President and CEO of the American Academy of Otolaryngology—Head and Neck Surgery and its Foundation in early December. Dr. Denny presented "How Can Otolaryngology and Quality Help Shape Successor Payment Models?", followed by "Developing a Culture of Research and Quality in Residency: How the AAO-HNS Can Help".
- The Communicative Sciences Divisions received ASHA Approved CE Provider Status. Their first course, "Erasing Learning Barriers: Addressing Hearing Issues in School Settings" took place December 12, 2018.

## ALUMNI SPOTLIGHT



**Dr. Patrick Hass** grew up in Cincinnati, Ohio. He completed his undergraduate studies at Harvard University and spent a year at Oxford University studying Sports Science before starting medical school at the University of Cincinnati. Patrick finished his Otolaryngology residency at UMMC in 2015.

After residency, Patrick joined a private practice ENT group in Northern Kentucky, a suburb of Cincinnati. In the last 3 years, the medical group has expanded to become a multi-specialty practice with Otolaryngologists and Medical Allergists. Dr. Haas enjoys practicing general otolaryngology with a special interest in Allergy, Rhinology, Pediatrics, Skin cancers, and Endocrine surgery.

Patrick enjoys spending time with his wife, Emily, who works as a pediatrician at a Federally Qualified Health Center in inner city Cincinnati. He also enjoys rowing and running and was lucky enough to complete his first marathon this past May. Patrick and Emily have 3 children, Henry (2), MaryEmily (3), and Oliver (8), who is in the second grade, enjoys reading, and misses the warm weather in Mississippi. Dr. Haas notes that he still relies on former co-residents Matt Richardson and Jim Spencer for sage advice in tough clinical scenarios.

## Interesting Case: *Electrical-acoustic Stimulation*

A 9-year-old girl with progressive hearing loss was evaluated for cochlear implant candidacy. She had been a longtime hearing aid user but complained about not being able to understand speech as well. Unaided audiogram showed a sloping, moderate to profound sensory hearing loss (Figure 1).

She underwent left-sided cochlear implant at UMMC using hearing conservation approach, in which steroids and surgical lubricant are used in special techniques to preserve inner ear anatomy. Postoperative hearing thresholds were within 0-20 decibels of preoperative levels and she was fit with a Med-El EAS processor, which combines both electrical and acoustic hearing in one hybrid processor.

She immediately noted dramatic improvement in speech discrimination after initial programming. At the request of her and her mother, the right ear was implanted five months later with similar results. Sentence recognition scores on the left ear went from 40% to 96% after surgery with similar results on the right, along with dramatically improved hearing in noise.

Electrical-acoustic stimulation (EAS) has been a target of research in otology, and currently the Cochlear Nucleus Hybrid and the Med-El EAS are FDA approved in patients over 18 years old. However, while the Nucleus Hybrid uses a shorter array with fewer electrodes, the Med-El system uses the same implants that are approved at 12 months of age and a different external device; therefore, if the EAS processor is not tolerated, a standard electrical processor can be used.

Hearing conservation surgery in cochlear implantation gives options to the patient with regard to electrical hearing, acoustic hearing, or both.

Ongoing research continues to demonstrate better hearing outcomes and patient satisfaction by using both modalities. This procedure has been repeated successfully in 5 patients at the University of Mississippi Medical Center. ■

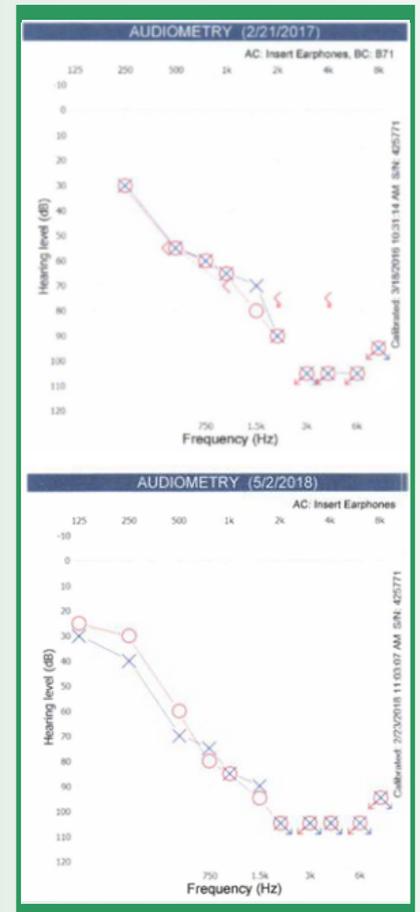


Figure 1. Preoperative pure tone audiogram (fab) compared with postoperative graph (Taffa\_).

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Lauren House, MD (PGY-5) and Jaxon Jordan, MD (PGY-3)  
at our annual Simulation Bootcamp.

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# ACADEMIC HIGHLIGHTS

- Faculty and residents attended the annual MSO meeting June 29-July 1, 2018. This year's event was held in Orange Beach, AL. Resident presentations included "Delayed Cochlear Implant Complications," by Laura House, MD (PGY-5), "Frailty in Head and Neck Cancer Patients," by Kristen Pitts, MD (PGY-5), and "The Role of Intravenous Acetaminophen in Post-Operative Pain Control in Head and Neck Cancer Patients," by Erin Smith, MD (PGY-5). Faculty presentations included "Endoscopic Ear Surgery," by Jeff Carron, MD, "Pedicled Latissimus Dorsi Flap for Head and Neck Reconstruction," by Gina Jefferson, MD, and "Topical Therapies for Recalcitrant Chronic Rhinosinusitis." by Scott Stringer, MD.
- Our department was well represented at the AAO-HNS/F Annual Meeting and Oto Experience held in Atlanta, Georgia in early October. "Juvenile Psammomatoid Ossifying Fibroma of the Maxilla: Case Report" poster was authored by faculty member Gina Jefferson, MD, resident, Kristen Pitts, MD (PGY-5), and medical student, Kelsey Bounds. "Frailty Predicts Outcomes in Head and Neck Cancer Patients" was presented by resident Laura Buck, MD (PGY-4). Co-authors include residents Kristen Pitts, MD (PGY-5) and Alberto Arteaga, MD (PGY-1), with Lana Jackson, MD as the senior author. "Case Matched Comparison of the Ulnar Fasciocutaneous Free Flap to the Radial Fasciocutaneous Free Flap for Reconstruction of Head and Neck Defects" poster was presented by resident Erin Smith, MD (PGY-5). Co-Authors included Issam Eid, MD and Lana Jackson, MD. In addition, department chair, Scott Stringer, MD participated in 3 panels including "Advanced Practice Provider in ENT: Justify, Recruit, and On-Board for Success: Parts I and II" and "Novel Medical and Surgical Interventions for Recalcitrant Sinusitis".
- Dr. Christopher Spankovich presented on "Epidemiology of Hidden Hearing Loss" at the 34th World Congress of Audiology October 28-31st in Cape Town, South Africa.
- Congratulations on the successful fellowship matches for Drs. Laura House and Erin Smith. Dr. House will be completing an Otolaryngology/Neurotology Fellowship at the House Ear Institute in Los Angeles, CA. Dr. Smith will be completing a Facial Plastics and Reconstructive Surgery Fellowship with Dr. Paul Nassif of Nassif MD Plastic Surgery and Dr. Babak Azizzadeh of Center for Advanced Facial Plastic Surgery, in Beverly Hills, CA.

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