U-M Otolaryngology Residency Program Ranked #1 Among U.S. Large Public Hospitals, #2 Nationwide

Doctors nationwide ranked the University of Michigan Department of Otolaryngology-Head and Neck Surgery as the best place for young otolaryngologists to train at large U.S. public hospitals and second in the country overall, according to a new ranking released Jan. 13.

The ranking was compiled by the physician network Doximity. The rankings derive from board-certified physicians’ answers to a survey about the best residency programs in their specialty. Nearly 3,700 residency programs were mentioned in more than 50,000 physician nominations, and U-M’s consistently rose to the top.

The release of the rankings comes as this year’s fourth year medical school students begin to create their rank order list of residency programs where they wish to train.

The U-M Department of Otolaryngology-Head and Neck Surgery interviewed 55 applicants in December. The program looks forward to welcoming a new class of interns in July 2015.

A Tradition of Excellence

The department has a long history of training the next generation of physicians and scientists in the field. The U-M otolaryngology residency program was established in 1906 by department chair Roy B. Canfield, M.D. He organized a plan of graduate education for three trainees per year, which included a first-year internship, a second year of subspecialty training and a third year as an instructor. This format was subsequently adopted by every U-M clinical service. In 1925, the number of trainees accepted per year increased from three to four under department chair Albert Furstenberg, M.D. Today the program continues to train four residents per graduating class and boasts more than 400 alumni.

Shared Success

The otolaryngology residency program is proud to be among the ranks of several top-tier training programs at U-M. Doximity named U-M named to the Top 10 Most Awarded Medical & Surgical Residency Institutions, with U-M listed at #6.

UMHS has the fourth-largest residency program in the U.S., according to Modern Healthcare, based on Medicare data. Training opportunities go well beyond the 20 specialties ranked by Doximity. UMHS offers physicians clinical training in 105 accredited specialties, from primary care to highly advanced subspecialties. Currently, more than 1,199 residents are training in their specialty while helping to care for patients at U-M’s Hospitals and Health Centers, under the supervision of U-M Medical School faculty physicians.

“These results are confirmation of the significant effects of our educational efforts in otolaryngology. They also speak to the quality of our faculty, nurses, allied health care workers and support staff, as well as our trainees and the institution as a whole.”

Mark E. Prince, M.D.
Residency Program Director

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FROM THE CHAIR

Dear Colleagues,

Happy New Year! I hope you enjoyed a wonderful holiday season filled with family, friends and relaxation.

Let me first begin by extending a huge thank you to the many alumni and friends who joined us here in Ann Arbor for the 2014 Michigan Work Society (MWS) Meeting. We were thrilled to double our attendance from 2012, making this the most successful MWS event in history! Held Oct. 9-11, the bulk of the weekend’s events took place at the Big House, where we took in the sites and sounds of Michigan football. The weekend was highlighted by a special visit from former head football coach Lloyd Carr. A true class act, he brought a smile to each of our faces. Many of us offered our support for Lloyd’s family by wearing #ChadTough bracelets. There wasn’t a dry eye in the room when Lloyd extended his gratitude for this kind display.

Thank you to everyone who presented at the various academic lectures, including Malcolm D. Graham, M.D., FACS and John Niparko, M.D. Also, this weekend would not have been possible without the hard work of both Michael LaRouere, M.D., and Steven A. Telian, M.D. You put together a spectacular weekend. You can read more about the MWS Meeting later in this publication.

It has been an exciting year for us here at the University of Michigan Department of Otolaryngology-Head and Neck Surgery. We have welcomed three new faculty members to our department: laryngologist Robbi A. Kupfer, M.D.; head and neck oncology surgeon Andrew G. Shuman, M.D.; and new director of our Kresge Hearing Research Institute, Gabriel Corfas, Ph.D. We are so proud to welcome these talented individuals to our team. You can read more about them later in this newsletter.

Although we’re half way through the academic year, I want to take the opportunity to congratulate those trainees who completed their residencies and fellowships in June, as well as welcome our newest class of residents and fellows. We continue to train the best of the best, which is evidenced by our residency program’s high ranking, as determined by U.S. News & World Report and Doximity. Thanks to those of you who voted to put us at the top of the list. We know we have the best alumni in the country.

As always, it is a joy and an honor to work in this special field in this remarkable place. Thank you for your continued support.

Best regards,

Carol R. Bradford, M.D., FACS

Charles J. Krause, M.D., Collegiate Professor of Otolaryngology and Chair, Department of Otolaryngology-Head and Neck Surgery
3D Printing Revolutionizes Medical Devices

When Robert Morrison, M.D., and Kyle VanKoevering, M.D., began their otolaryngology residency at the University of Michigan, neither of them had any idea the role that 3D printing would have in their training. In fact, neither knew much at all about 3D printing. But today, Drs. Morrison and VanKoevering are resident experts in 3D printing, due to their involvement in the department’s emerging 3D printing research endeavors.

Originally used in the automobile and aerospace industries, 3D printers have been used for rapid prototyping for many years. Researchers at the University of Michigan Department of Otolaryngology-Head and Neck Surgery are exploring the clinical implications for 3D printing and how it can improve the lives of our patients.

3D-Printed Airway Splint

Working with Glenn E. Green, M.D.; and Scott Hollister, Ph.D.; Drs. Morrison and VanKoevering are using 3D printing to investigate a treatment for severe cases of tracheobronchomalacia. Tracheobronchomalacia is a rare condition in babies characterized by a floppy, underdeveloped windpipe, which causes the baby’s airway to frequently collapse. Severe cases, although rare, have high morbidity and mortality.

As an answer to this rare condition, the research team developed a biodegradable device, which is designed using computer-aided design based on the patient’s imaging and manufactured using a laser-based 3D printing system. The patient-specific tracheobronchial splint is sewn around the patient’s floppy airway to expand the affected area and provide support and protection during airway growth. Over about three years, the splint is resorbed by the body. To date, this technology has been used to save the lives of three babies. Today the team is in the final stages of FDA approval to begin a randomized controlled trial to look at the effectiveness of the device.

For Dr. Morrison, this experience has been incredibly varied and dynamic. “My role has encompassed everything from pre-operative evaluation of patients, to designing and manufacturing the actual splint, to assisting in the operating room when the splint is placed,” says Dr. Morrison. “I have also traveled to the U.S. Food and Drug Administration to discuss regulation of 3D printed medical devices such as ours, and I currently sit on the 3D printing committee for the Society of Manufacturing Engineering.”

3D-Printed CPAP Masks for Obstructive Sleep Apnea

Obstructive sleep apnea—the most common form of sleep apnea—is a condition in which breathing repeatedly starts and stops during sleep. If untreated, sleep apnea can cause daytime sleepiness, lack of energy, fatigue and tiredness, and may raise risk for serious health conditions, including high blood pressure, stroke and heart attack.

The standard treatment for sleep apnea is Continuous Positive Airway Pressure (CPAP), which requires the patient to wear a mask while sleeping. The mask fits against the face and supplies a constant air pressure, keeping the airway open and preventing obstruction. Although CPAP therapy is highly effective, it requires an adequate seal of the mask against the face. This proves difficult for children with structural facial anomalies who are unable to wear a standard CPAP mask.

Working with Drs. Green and Hollister, Drs. Morrison and VanKoevering are using 3D printing to customize CPAP masks for these children. Using 3D photography or a CT scan, a virtual, three-dimensional model of the patient’s face is created. This model is then used to determine the patient’s direct facial contour, which allows for the virtual modeling and 3D printing of a customized mask insert. The 3D-printed insert is filled with soft silicone and placed into a standard Respironics™ mask. The result is a custom CPAP mask, tailored to the specific anatomy of the patient. Outcomes to date have been positive, with the first patient achieving an 80% reduction in mask leak and a 25% reduction in residual Apnea Hypopnea Index. The team is currently in the midst of a pilot clinical trial to treat five children with craniofacial disorders and sleep apnea.

“This project has allowed me to contribute to unique and exciting research that keeps me engaged and challenges different facets of my education and brain,” says Dr. VanKoevering. “It has shown me what a career in combined research and clinical projects can look like and the impact translational medicine can have on patients.”

The image-based design and 3D biomaterial printing process can be adapted to build and reconstruct a number of tissue structures. The research team is also working to utilize the process for cartilage tissue engineering specifically related to craniofacial and aerodigestive constructs.
Welcome Gabriel Corfas, Ph.D., as New Kresge Hearing Research Institute Director

For more than 50 years, scientists at the U-M Kresge Hearing Research Institute (KHRI) have worked to obtain new knowledge about the basic biology of the human ear and the conditions that affect it. Now, a new director will bring the institute into a new era.

Gabriel Corfas, Ph.D., comes to U-M from Harvard Medical School, where he was a professor in neurology and otolaryngology and a leading researcher in the interface between the brain and the ear. He also served as director of basic research in otolaryngology at Children’s Hospital in Boston.

A native of Argentina and a graduate of the Weizmann Institute of Science in Israel, Dr. Corfas trained at the Washington University School of Medicine and Harvard Medical School before joining the Harvard faculty in 1992. His research focuses on the molecular mechanisms involved in the development, function and maintenance of the nervous system and in using this knowledge to understand nervous system disorders and develop new therapies to treat them.

“It is with great enthusiasm that we announce the recruitment of Gabriel Corfas to our faculty and Kresge, which will immediately elevate Michigan’s standing in hearing research worldwide,” says Carol R. Bradford, M.D., FACS. “The new director's vision is to build the internationally-renowned Institute into a groundbreaking center of regenerative medicine in which scientists and physicians collaborate to uncover and solve the problems posed by hearing impairment.”

The KHRI’s research efforts focus on the basic biology of all aspects of the human ear and sense of hearing, including deafness, tinnitus and head and neck cancer. Its research programs include multi-disciplinary projects in behavior, morphology, physiology, molecular biology and genetics, bioengineering, pharmacology and biochemistry.

Established by the Regents in 1960 and opened in 1962, KHRI has had just three directors since its founding: Merle Lawrence, Ph.D.; Josef Miller, Ph.D.; and Jochen Schacht, Ph.D. After 14 years as director, Schacht will continue his research as director of the Auditory Biochemistry and Molecular Biology Lab at the KHRI.

Integral to Kresge’s efforts are its many training programs for up-and-coming scientists, including a summer program for deaf and hard-of-hearing undergraduate students, and the Hearing, Balance, and Chemical Senses Program for graduate students and postdoctoral fellows. It also offers weekly scientific seminars.

Trainee Projects A Look at a Few of Our Trainees’ Research Endeavors

**Neurotrophic Factor Impact on Axonal Regrowth in the Deaf Mouse Cochlea**

Hair cells in the inner ear convert sound waves into electric signals that the brain can interpret. Loss of these hair cells results in the degeneration of the neuron processes that formerly connected to the cells. These processes are important for efficient functioning of cochlear implants. Megan Nelson is studying how neurotrophic factors—proteins important for neuron development and survival—can affect neuron process regrowth using a novel transgenic mouse with a hair cell-specific deafness model. She is also evaluating the specificity and effectiveness of this mouse model.

**Longitudinal Study of Sinusitis**

Sarah Novis, M.D., with Melissa A. Pynnonen, M.D., and her lab, is working to build a detailed institutional database of patients diagnosed with sinusitis in the primary care setting at U-M. This database follows patients longitudinally over seven years to evaluate patient and physician factors affecting treatment, resource utilization, and patient outcomes.

**Recurrent Respiratory Papillomatosis (RRP) and Human Papillomavirus (HPV)**

Aaron Thatcher, M.D., is studying RRP. He is evaluating for high risk HPV types in adult biopsies to determine if it is a...
Research Training Programs

Research and didactic training is a primary mission of the department. We offer a variety of research training opportunities for medical students, residents, graduate students, fellows and visiting scientists.

**Advanced Research Training in Otolaryngology Program (ARTOP)**

Since 1986, ARTOP has provided research training in otolaryngology related disciplines for medical students, resident physicians and post-residency fellows to develop the next generation of clinician-scientists. Research mentors consist of both basic and clinical U-M researchers in a variety of disciplines. Several mentors are accomplished clinician-scientists who are in demand as research mentors. ARTOP program tracks include the Pre-Doctoral Program, Residency Program and Post-Residency Program.

**Head and Neck Cancer Research**

The department offers undergraduate, graduate and post-graduate training opportunities in head and neck cancer research. Faculty-lead training experiences are available through the department in coordination with the University of Michigan Medical School. The department also trains cancer biology graduate students through the UMMS Program in Biomedical Sciences. This program spans many disciplines, including cell biology, genetics, biochemistry, microbiology, pharmacology, pathology, epidemiology, bioinformatics and immunology. It represents a unique set of training and educational activities that, taken collectively, expose the student to the full breadth of cancer biology while allowing immersion in a specific dissertation topic of the student’s choice.

**Kresge Hearing Research Institute**

**Hearing, Balance and Chemical Senses (HBCS) Program**

The HBCS program provides mentorship and training for students who are interested in becoming leading research scientists in the fields of hearing, balance and the chemical senses. The program aims to train these scientists to obtain academic positions, compete for research funding and effectively manage research laboratories.

In particular, the HBCS program seeks to attract individuals from under-represented populations into the fields of science and medicine. Each year, the program offers stipends for four pre-doctoral and three post-doctoral trainees. Trainees attend weekly seminars, by internationally-renowned research scientists in a variety of fields, to receive mentorship regarding careers in research. Further, trainees are educated in research standards and ethics through classroom and computer-based training programs.

**Summer Program for the Deaf and Hard-of-Hearing**

For deaf and hard-of-hearing undergraduates, the KHRI offers a summer experience, supported by the National Institute of Health, in biomedical sciences and computing. Each year, the program accepts up to five students. Students are paid and offered free room and board. Students gain hands-on laboratory experience, research mentoring and education in computing.

**Research Rotations**

The department offers a wide range of ongoing basic science, clinical and translational research opportunities, as well as opportunities to develop individual projects under the guidance of a faculty mentor. Trainees are encouraged to develop projects that are aligned with their interests. In addition, department faculty members provide training to enhance manuscript and grant writing skills.

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[Image of Brittny Tillman, M.D., with J. Chad Brenner, Ph.D., and Matthew Spector, M.D.]  

**Fibroblast Growth Factor Family (FGF) Mutations**

Brittny Tillman, M.D., with J. Chad Brenner, Ph.D., and Matthew Spector, M.D., is investigating the role of FGF mutations in head and neck cancer. Through analysis of The Cancer Genome Atlas, they have found that over 35% of head and neck tumors genetically sequenced possess FGF family mutations. Utilizing this data to further investigate our U-M patient population, they hope to find new treatment targets and in turn improve survival rates in patients with head and neck cancer.

[Image of Calvin Wu, Ph.D.]  

**Somatosensory Influences on Sound Localization Coding in the Cochlear Nucleus**

An important feature of a sound is its frequency content, which provides cues for sound localization. The cochlear nucleus in the brainstem detects sound localization cues via a complex neural circuit. Calvin Wu, Ph.D., is investigating the property of the cochlear nucleus circuitry and examines its interaction with inputs from other sensory systems. His findings suggest that the somatosensory system can control sound localization and may be harnessed in designing better hearing prosthetics.
FACIAL PLASTIC, RECONSTRUCTIVE AND CRANIAL BASE SURGERY

- Nancy Rogers, BSN, R.N., received a DAISY Award in recognition of her extraordinary work, ongoing clinical skill and demonstrated compassion for patients at the bedside.

HEAD AND NECK ONCOLOGY

- Carol R. Bradford, M.D., FACS, was elected to the Institute of Medicine (see article). She was also elected to Director-at-Large (Academic) for the 2014 AAO-HNS Election.

- Douglas B. Chepeha, M.D., MScPH, left the Division of Head and Neck Oncology after 19 years of service to pursue a career opportunity at the University of Toronto. He will remain on faculty at U-M as an adjunct professor to continue his important research contributions.

- Mark E. Prince, M.D., was appointed to serve as co-director of the Head and Neck Oncology Program within the U-M Comprehensive Cancer Center, as successor to Dr. Bradford, who served in this capacity since 1998. Dr. Prince will serve with Thomas E. Carey, Ph.D., who will continue to serve as co-director.

- Andrew G. Shuman, M.D., was appointed as chair of the UMHS Ethics Committee. We are certain the committee and the growth of clinical ethics at UMHS will flourish under his careful guidance.

KHRI AND CANCER RESEARCH

- The KHRI held a special event on Dec. 16, “KHRI Leadership: A Tradition of Excellence” to thank Jochen Schacht, Ph.D., for his 14 years of service as the KHRI director and welcome Gabriel Corfias, Ph.D., as the new Institute director. It was a wonderful evening. Photos from the event are available on the department Facebook page. To learn more about Dr. Corfias, see the article in this newsletter.

- Thomas E. Carey, Ph.D., was inducted into The League of Research Excellence, an honorary University of Michigan Medical School Society established in 2011 to recognize faculty who have made significant contributions to the U-M research enterprise.

LARYNGOLOGY, RHINOLOGY AND GENERAL OTOLARYNGOLOGY (LaRGO)

- Robbi A. Kupfer, M.D., joined the division in September. See her profile for more information.

- Nancy Wallace, BSN, R.N., received the Society of Otorhinolaryngology and Head-Neck Nurses (SOHN) Clinical Excellence Award. The award recognizes nurses who have demonstrated excellence in the delivery of skilled, compassionate care.

NEUROTOLOGY/OTOLOGY

- Margot Beckerman, Au.D., CCC-A, was elected to the American Speech-Language-Hearing Association (ASHA) Board of Directors as Audiology Advisory Council Chair.

- Bruce Edwards, Au.D., was recognized as an Academy Scholar by the American Academy of Audiology for his level of continuing education for January 2012-December 2013.

- William M. King, Ph.D., was appointed to the Editorial Board of the Journal of Neurophysiology for a three-year term.

- Teresa Zwolan, Ph.D., CCC-A, was appointed to the Michigan Board of Audiology for a four-year term.

PEDIATRIC OTOLARYNGOLOGY

- Jaynee Handelsman, Ph.D., CCC-A, was elected to president-elect of ASHA for 2015. She will serve as president in 2016.

- Rori Stienstra, BSN, R.N., received a DAISY Award in recognition of her extraordinary work, ongoing clinical skill and demonstrated compassion for patients at the bedside.

RESIDENCY PROGRAM

- The U-M Otolaryngology-Head and Neck Surgery Residency Program was ranked the #1 otolaryngology residency program among U.S. large public hospitals and #2 overall by U.S. News & World Report and Doximity.

- Rebecca Harvey, M.D., was selected to serve as one of the AAMC Organization of Residency Representatives (ORR) from otolaryngology.
Carol R. Bradford, M.D., FACS, Elected Into Institute of Medicine

"I am truly humbled and blessed by the extraordinary honor of being elected to serve on the Institute of Medicine. I feel fortunate to have been blessed with extraordinary teachers, mentors, colleagues, trainees, friends, patients and family members throughout my career. I very much look forward to serving to the best of my ability."

Carol R. Bradford, M.D., FACS, was elected to the prestigious Institute of Medicine of the National Academies (IOM), one of the highest honors in the fields of health and medicine. Dr. Bradford is one of six University of Michigan elected to the IOM this year. Her fellow honorees include Gonçalo Abecasis, D.Phil.; Eva Feldman, M.D.; A. Mark Fendrick, M.D.; Susan Murphy, Sc.D., OTR; and Kathleen Potempa, Ph.D., R.N. These individuals were elected to the IOM in recognition of their major contributions to the advancement of the medical sciences, health care and public health. With their election, the U-M now has 59 past and present members of the IOM.

Dr. Bradford, chair of the Department of Otolaryngology-Head and Neck Surgery at the Medical School and the Charles J. Krause, M.D., Collegiate Professor of Otolaryngology, is an otolaryngologist and an internationally recognized leader in the treatment of head and neck cancer.

Dr. Bradford specializes in head and neck cancer surgery and reconstruction, as well as cutaneous oncology and sentinel lymph node biopsy. Her research focuses on identifying and evaluating biomarkers that can predict outcomes in head and neck cancer patients, and developing therapies to combat certain types of head and neck cancer that are resistant to traditional forms of treatment. She has published more than 200 peer-reviewed articles.

During her 16-year tenure as co-director of the Head and Neck Oncology Program at the U-M Comprehensive Cancer Center, Dr. Bradford helped to advance it from a small program with a few members to one with 30 members from 10 departments and five schools. She continues to play an active role within the program.

Dr. Bradford is the honored recipient of several awards, including the Jeanne Cady Solis Award for American Medical Women’s Association Mentorship and the 2009 Physician of the Year Award from Castle Connolly. She is also the past president of the American Head and Neck Society.

Robbi A. Kupfer, M.D.

Assistant Professor, Department of Otolaryngology-Head and Neck Surgery, University of Michigan Medical School

Dr. Kupfer, a former U-M trainee, returns to our department from the University of Washington, where she completed her fellowship in laryngology. Her clinical expertise includes diagnosis and treatment of all voice, swallowing and upper airway disorders, with special interests in vocal fold paralysis, dysphagia and care of the professional voice. Dr. Kupfer uses a multidisciplinary team approach with experienced speech pathologists to facilitate comprehensive and integrated patient care. In addition to open and endoscopic laryngeal surgery, she offers awake in-office procedures, including laser treatment of recurrent respiratory papillomas and other benign laryngeal lesions, injection augmentation for vocal fold paralysis, botulinum toxin injections for spasmodic dysphonia and transnasal esophagoscopy.

Clinical Interests: voice, airway and swallowing disorders; endoscopic laser surgery; recurrent respiratory papillomatosis and awake, in-office laser treatment of papillomas; vocal fold paralysis; subglottic stenosis; care of the professional voice; transnasal esophagoscopy

Research Interests: vocal fold paralysis, voice-related quality of life, recurrent respiratory papillomatosis

Medical School: University of Michigan Medical School (2008)

Residency: University of Michigan Medical School (2013)

Fellowship: Laryngology, University of Washington (2014)

Certification: American Board of Otolaryngology
Clinical Training Programs

The Department of Otolaryngology-Head and Neck Surgery is committed to training the next generation of leaders in the field. Our training programs offer a wide range of experiences and follow a multidisciplinary teaching approach. Our faculty are leaders in their specialties, with an enthusiasm to share their knowledge.

MEDICAL STUDENT EDUCATION

The department provides medical students with a comprehensive clinical elective experience tailored to each student’s career choice. Students are exposed to the diagnosis and management of ear, nose and throat problems from participation in outpatient clinics, inpatient rounds and operative procedures. For those looking for a more in-depth otolaryngology experience to prepare for residency, the department offers a sub-internship for both U-M and visiting medical students. This rotation offers the opportunity to concentrate in a particular subspecialty for the entire rotation, allowing for a richer experience than our clinical elective currently offers.

RESIDENCY PROGRAM

The department provides exceptional residency training in otolaryngology-head and neck surgery. Under the guidance of dedicated faculty, residents receive in-depth instruction in all facets of otolaryngology and develop skills that equip them to exceed the highest standards of patient care and research. Throughout the program, small-group and departmental teaching conferences are held. Didactic teachings include weekly lectures, grand rounds and laboratory sessions. Special courses are given in temporal bone surgery, head and neck oncology, facial plastic and reconstructive surgery, microsurgery, nasal endoscopy and research techniques. Residents also enjoy 6-18 months of dedicated research time.

FELLOWSHIP PROGRAMS

The department offers several fellowship training opportunities, all of which are directed by top-tier faculty. Fellows are actively involved in resident instruction, including clinical, surgical and didactics. Fellows also participate in research.

Facial Plastic and Reconstructive Surgery

The Fellowship in Facial Plastic and Reconstructive Surgery provides hands-on exposure to a variety of facial plastic and reconstructive surgical procedures. If desired, there is also opportunity to observe a diversity of microsurgical procedures. The fellow has two clinics per month at the University Hospital to generate personal surgical cases, serves as first assistant for procedures performed by faculty and as primary surgeon on procedures performed at the V.A. Ann Arbor.

Facial Plastic and Reconstructive Surgery/Cranial Base Surgery

The Fellowship in Facial Plastic and Reconstructive Surgery/Cranial Base Surgery provides hands-on experience in a variety of cases involving maxillofacial trauma, antero-lateral skull base tumors and post-traumatic reconstruction; Mohs reconstruction, cosmetic surgery and emphases in craniomaxillofacial and anterior cranial base surgery. The fellow has four clinics per month to generate personal surgical cases, participates in our weekly cranial base program clinic and serves as the attending at the Ann Arbor V.A. MOHs clinic. The fellow also spends one day per week in the O.R. gaining exposure to cosmetic surgery and broad training in facial cosmetic and Mohs reconstructive surgery.

Head and Neck Oncologic Surgery

The Fellowship in Head and Neck Oncologic Surgery provides advanced training in head and neck surgical oncology and microvascular reconstruction. The fellow participates in weekly conferences, tumor board meetings and grand rounds; monthly morbidity and mortality conferences and the multidisciplinary Head and Neck Cancer Clinic. In addition, the fellow gains direct experience in a variety of surgical cases for which the fellow serves as first assistant or primary surgeon.

If desired, the department offers a two-year research fellowship, such that a second year is devoted to development of an adequate proposal for review by the Research Committee, prior to approval and funding. Research spans study design, quality of life measures and clinical research. There is also opportunity for basic science research including molecular biology of tumors, predictive makers, animal models and free-flap physiology studies.

Otology, Neurotology and Skull Base Surgery

The Fellowship in Otology, Neurotology and Skull Base Surgery allows fellows to work with a dynamic team to detect, diagnose and rehabilitate hearing loss and related disorders. The first year of the two-year appointment is clinically-oriented, with time also spent designing a research project for presentation to the department Research Committee, while the second year is spent pursuing that project as well as in active...
Courses and Lectures

COURSES

Dissection Courses
Every year, residents and fellows participate in two Anatomic Dissection Courses, as well as the Temporal Bone Dissection Course. These courses provide trainees with hands-on experience and the opportunity to hear from distinguished lecturers from around the country and world.

ORL Essentials Boot Camp
Residents encounter difficult and emergent airway situations throughout their training. Our ORL Essentials Boot Camp, offered through our Simulation Program, gives residents the opportunity to learn and practice new skills and procedures in nearly real situations without risk of injury to a patient. Skills learned and practiced include airway management from intubation to tracheostomy, drainage of peritonsillar abscess, myringotomy with tube insertion, adenoidectomy and basic sinus surgery skills. Participants also assess on-call readiness and management of common ORL emergency scenarios through hands-on experience using high-technology manikins. With emphasis on experience and practice rather than lectures and formal didactics, learners leave with increased comfort and confidence as they embark on their early careers.

Charles J. Krause, M.D., Lectureship
The Charles J. Krause, M.D., Lectureship was established in 1992 by Dr. and Mrs. Charles Krause. Dr. Krause was a former chair of the department. The lectureship aims to further the understanding of research advances in otolaryngology, involving both basic science issues and clinical medicine. Residents present updates on their research projects, which cover a variety of topics and specialties. The day is punctuated by presentations by a guest lecturer. Department faculty and alumni as well as regional community otolaryngologists are invited to attend.

Hearing, Balance and Chemical Senses Seminar Series
Every month, the KHRI sponsors a seminar as part of its Hearing, Balance and Chemical Senses Seminar Series. The seminars feature guest speakers from both U-M and other academic institutions.

Lawrence-Hawkins Symposium
Established in 2004 by the KHRI, the Lawrence-Hawkins Symposium honors the research legacy of KHRI founding faculty members, Drs. Merle Lawrence and Joseph Hawkins. The one-day event is devoted to basic science and clinical research presentations by students, fellows and residents of the department and highlighted by a morning presentation by a distinguished alumnus. Department faculty, trainees and alumni are invited to attend.
## Congratulations Class of 2014, U-M Department of Otolaryngology-Head and Neck Surgery

### Residents

**Steven B. Chinn, M.D.**, joined our residency program following completion of his medical degree at the Keck School of Medicine of the University of Southern California. Today Dr. Chinn is pursuing a head and neck surgical oncology fellowship at the M.D. Anderson Cancer Center.

**Steven Kang, M.D.**, joined our residency program after completing his medical degree here at the University of Michigan Medical School. Today Dr. Kang is pursuing a head and neck oncology fellowship at The Ohio State University Wexner Medical Center.

**Andrew D. Kroeker, M.D.**, joined our residency program following completion of his medical degree at the Oregon Health & Science University School of Medicine. Today Dr. Kroeker is pursuing a skull base fellowship here at the University of Michigan.

**Cedric V. Pritchett, M.D.**, joined our residency program after completing his medical degree at The Ohio State University College of Medicine. Today Dr. Pritchett is pursuing a pediatric otolaryngology fellowship at the Ann & Robert H. Lurie Children’s Hospital of Chicago.

**David A. Zopf, M.D.**, joined our residency program after completing his medical degree at the Indiana University School of Medicine. Today Dr. Zopf is pursuing a pediatric otolaryngology fellowship at the University of Washington Seattle Children’s Hospital.

### Fellows

**Jennifer Veraldi Brinkmeier, M.D.**, completed our Advanced Research Training in Otolaryngology Program. She is practicing pediatric otolaryngology at the St. Louis University School of Medicine.

**Cameron L. Budenz, M.D.**, completed our otology, neurotology and skull base surgery fellowship. She is practicing at the ENT Faculty Practice, LLP in Westchester County, New York.

**Daniel R. Jensen, M.D.**, completed our pediatric otolaryngology fellowship. He is practicing at the Children’s Mercy Hospital in Kansas City, Missouri.

**Chaz L. Stucken, M.D.**, completed his head and neck oncology fellowship. He is completing a facial plastic and reconstructive surgery fellowship at The Ohio State University.

**Justin M. Wudel, M.D.**, completed his facial plastic and reconstructive surgery fellowship. He is practicing at Edine Facial Plastic Surgery in Minneapolis, Minnesota.

### Graduate Reflections

"The University of Michigan provided not just superior clinical training but also the opportunity to explore the dynamics of healthcare delivery in our present societal state."

-Dr. Cedric Pritchett, 2014 Residency Graduate

"My advice to current and future trainees? Learn as much as you can, not only from the excellent faculty, but the outstanding ancillary staff, each other and most importantly, the patients."

-Dr. David Zopf, 2014 Residency Graduate
2014-2015 INTERNS

Ashley Bauer, M.D., completed her B.S. in biology at the University of Nebraska at Omaha. While in college, Dr. Bauer was honored to win the Miss Nebraska 2007 title and competed in the Miss America competition. This title afforded her the opportunity to travel and participate in speaking engagements during the subsequent year, which taught her the art of advocacy. Following college, Dr. Bauer went on to complete her medical degree at the University of Minnesota Medical School, where she was a Junior Inductee of the Alpha Omega Alpha Medical Honors Society (AOA) and held a Regents’ scholarship. She continued her commitment to advocacy with considerable community service activities. Dr. Bauer’s interests include horseback riding, singing and playing the piano.

John E. Hanks, M.D., received his B.A. in chemistry from Carleton College in Minnesota, where he played varsity football and basketball and threw javelin for track and field. In 2009, he received the Carleton College Mel Taube Award for “outstanding male athlete with exceptional loyalty, dedication and achievement in varsity athletics.” Dr. Hanks graduated from the University of Minnesota Medical School, where he conducted several research projects within the Department of Otolaryngology. He is a member and scholarship recipient of the Minnesota Medical Foundation. In his spare time, Dr. Hanks enjoys attending Minnesota Twins baseball games, brewing beer and traveling.

Kevin J. Kovatch, M.D., earned his B.S. in molecular biology and biochemistry from the University of Pittsburgh, where he was a member of the Honors College. Presidential Scholarship Recipient and winner of the Outstanding Research Award and Scholarship Grant from the Magee Women’s Research Institute. Dr. Kovatch completed his medical degree at the University of Pennsylvania, where he was inducted into AOA and received the 2013 Eastern Society for Pediatric Research Student Travel Award. During medical school, Dr. Kovatch pursued several research opportunities; his efforts have resulted in manuscripts on which he is co-author or first author. Dr. Kovatch’s interests include long distance running, triathlons and fishing.

2014-2015 FELLOWS

Sameer Ahmed, M.D., joins the department as our otology, neurotology and skull base surgery fellow. Dr. Ahmed completed both medical school and residency at the David Geffen School of Medicine at UCLA. During residency, Dr. Ahmed received the Shirley Baron Resident Research Award from the Triological Society, Western Section (2013). His research interests include single-sided deafness and vestibular disorders. When he’s not working, Dr. Ahmed enjoys spending time with family, exploring Michigan and playing basketball.

Nathan J. Gonik, M.D., is our pediatric otolaryngology fellow. He completed medical school at the Wayne State University School of Medicine and residency at the Albert Einstein College of Medicine. Dr. Gonik also has a MHSA in health management and policy from the University of Michigan School of Public Health. Outside of work, Dr. Gonik enjoys golfing, running and spending time with his family.

Andrew D. Kroeker, M.D., is our skull base surgery fellow. Dr. Kroeker completed medical school at Oregon Health and Science University and his residency here at U-M. As a senior resident, Dr. Kroeker organized the department’s anatomical dissection courses for the benefit of his fellow trainees. Outside of work, Dr. Kroeker enjoys biking, running, swimming and spending time with his family and friends.

Jesse T. Ryan, M.D., joins us as our head and neck oncology fellow. He completed medical school at the Mount Sinai School of Medicine and residency at the National Capital Consortium. Dr. Ryan has been published as first author on multiple publications. In his free time, Dr. Ryan enjoys running and spending time with family.

Taylor R. Manton, M.D., received her B.S. in molecular and cellular biology from Sonoma State University in California, where she played varsity volleyball and received the All-California Collegiate Athletic Association Academic Award (2004-2008). Dr. Manton graduated from the University of Southern California Keck School of Medicine, where she received a Keck Summer Research Fellowship and was a Sonoma County Medical Association & Alliance Health Careers Scholar. She is also co-founder of the Agape Global Health Missions, which brings together volunteers from the Keck School of Medicine and University of the Pacific Arthur A. Dugoni School of Dentistry to provide primary medical-dental services, education and evangelism to underserved populations. In her free time, Dr. Manton enjoys playing volleyball, indoor rock climbing, yoga and cooking.

James Y.A. Owusu, M.D., is our facial plastic and reconstructive surgery fellow. Dr. Owusu completed medical school at the Wake Forest University School of Medicine, his internship at the Hennepin County Medical Center and his residency at the University of Minnesota. During his residency, Dr. Owusu received several awards, including the Resident Leadership Grant Award from the American Academy of Otolaryngology (2012). Outside of work, Dr. Owusu enjoys spending time with family, running and playing tennis.

Dr. Ryan was a Sonoma County Medical Association & Alliance Health Careers Scholar. She is also co-founder of the Agape Global Health Missions, which brings together volunteers from the Keck School of Medicine and University of the Pacific Arthur A. Dugoni School of Dentistry to provide primary medical-dental services, education and evangelism to underserved populations. In her free time, Dr. Manton enjoys playing volleyball, indoor rock climbing, yoga and cooking.

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For more than 20 years, the University of Michigan has fostered the development and growth of its Ghana-Michigan Platform of Engagement. Through this program, U-M faculty members partner with Ghanaian colleagues to identify opportunities for collaboration that can serve both institutions and yield results greater than what could be achieved separately.

The U-M Department of Otolaryngology-Head and Neck Surgery is part of this Ghana-Michigan Platform. It is working with partners at the Komfo Anokye Teaching Hospital (KATH) in Kumasi, Ghana, to establish an otology program that will expand both training and clinical practice around chronic ear surgeries. KATH is the second-largest hospital in Ghana and the largest and busiest otolaryngology department in the country. It also serves as the country’s training hub for otolaryngologists.

The U-M otolaryngology department first sent Mark E. Prince, M.D.; Jeff S. Moyer, M.D., FACS; and David J. Brown, M.D.; to visit Ghana in October 2013. They met with key otolaryngology leadership to conduct a needs assessment, which identified the following priority areas for collaboration:

- A lack of otologic surgery capacity to manage acute and chronic surgical ear disease in central to northern Ghana
- No capacity for minimal exposure surgery to the sinuses and skull base, as all sinus procedures are performed with open techniques
- A lack of laryngeal microsurgery techniques, particularly minimally invasive laryngeal surgery

The root causes of these priorities boil down to a lack of equipment and infrastructure. Without the technology necessary to practice these surgical techniques, KATH’s otolaryngologists are unable to maintain these surgical skills. In turn, the surgeons do not train their residents or fellows in these techniques, further extending the gap.

Although the needs assessment identified gaps in otologic surgery, sinus and skull base surgery and laryngeal microsurgery, the group elected to focus first on otology. Chronic ear infections are common in the Ghana population, which leads to hearing loss, deafness and even fatalities, if the infections go untreated. By providing KATH surgeons with focused training in otologic surgery, the collaboration hopes to improve outcomes and morbidity and mortality.

The aim is to establish an otology program at KATH that will be self-sufficient in 36 months as defined by the faculty members’ capacity to both perform the broad range of chronic ear surgeries and train their residents and fellows. Over the next three years, U-M faculty members will spend 5-6 days per quarter at KATH, training KATH’s faculty. U-M trainees will also join on occasion. This program will be enhanced by the creation of a KATH temporal bone lab that will allow for the development and maintenance of acquired otologic skill sets.

“It’s about teaching them to fish,” says Dr. Moyer. “We want to help KATH build a program that has longevity. They’re incredibly smart and skilled – they just need the equipment and training. That’s where U-M can help.”

To date, the team has purchased equipment for the KATH temporal bone lab and operating room, which they were able to use during their October 2014 trip. This hasn’t been without sacrifice; the team had to divert funds from travel to equipment in order to offset capital costs. As a result, their October travel expenses were entirely out-of-pocket.

But it’s worth it. As is often the case in collaborative relationships, this one is mutually beneficial. “We work in a resource-rich healthcare environment here in the U.S.,” says Dr. Moyer. “As a result, we become very reliant on technology. But at KATH, in the absence of high-tech imaging and instruments, physicians use more traditional methods, making them excellent diagnosticians and clinicians. I think we’ll learn more from them than they will from us.”

The U-M team is set to return to Ghana in March 2015, with several more trips planned throughout the year.

If you would like to make a donation to support our work in Ghana, please contact Amanda Thatcher at athatche@med.umich.edu or 734-936-8003.
Merle Lawrence, Ph.D., Collegiate Professorship in Otolaryngology

An eminent physiologist with a scientific career spanning more than 40 years, Dr. Merle Lawrence, Ph.D., played a central and leading role in the establishment and growth of research in otolaryngology.

Among his fellow scientists, Dr. Lawrence is intimately associated with inner ear physiology where, among other accomplishments, his research provided the first physiologic evidence that the origin of auditory distortion lies in the inner ear, not the middle ear. He also pioneered the study of cochlear vascular physiology and the regulation of blood flow at the level of the capillaries. His insights into the underlying physiology and his contacts with eminent clinicians of his time influenced the great advances in middle ear functional restoration and reconstruction, including the tympanoplasty and stapedectomy procedures.

A Beloved Mentor and Teacher

In addition to his remarkable achievements as a researcher, Dr. Lawrence was also a dedicated and beloved teacher. He trained graduate students and fellows and was a mentor and esteemed colleague to otolaryngology residents and faculty. Many of his trainees went on to become leaders in their fields.

Founding Director of the Kresge Hearing Research Institute

In 1960, the Regents of the University of Michigan formally established the Kresge Hearing Research Institute with Dr. Lawrence as its first director. Under his leadership, the Institute grew to become one of the largest and most influential centers for research on hearing and deafness worldwide.

Honoring His Legacy

To honor Dr. Lawrence, the department is working to establish the Merle Lawrence, Ph.D., Collegiate Professorship in Otolaryngology. This professorship will fund a distinguished scholar who embodies the highest precepts of academic excellence and who will direct a research training program for medical students, graduate students and residents. The professorship will develop the innovative hearing research programs, which will attract the brightest and most promising faculty and students.

Make a Donation

If Dr. Lawrence touched your life through his innovative research, teaching or friendship, please consider making a donation to help us complete this lasting tribute.

Be a Victor for Michigan

Philanthropy is a vital resource that allows the Department of Otolaryngology-Head and Neck Surgery to do more teaching and learning and to transfer ground-breaking research into life-saving clinical applications. We rely on private support to help us with this vital work. If you would like to make a gift online or learn about the many opportunities for giving, please visit www.med.umich.edu/oto/giving/.

You may also contact:

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Thank you for your confidence in us and for supporting our work. There is no more gratifying gift than one that improves the health and health care of our patients.
Alumni Reconnect at the Big House During 2014 Michigan Work Society Meeting

More than 150 alumni and guests converged on Ann Arbor from near and far to enjoy the 2014 Michigan Work Society Meeting Oct. 9-11. Meeting festivities included three days of social activities, academic lectures, clinic and hospital tours, the U-M football game and time to reminisce with friends old and new. This year’s event was particularly exciting, as both the academic meeting and the gala took place at the Michigan stadium.

Michigan Work Society Academic Meeting

This year’s academic meeting was centered on the theme of otology and neurotology and featured the 2014 Walter P. Work Lecturer, Malcolm D. Graham, M.D., FACS, of Emory Healthcare. Dr. Graham presented a brilliant overview of the history of otology and neurotology at the University of Michigan from 1978 until 1986. His presentation was both elegant and entertaining, and Dr. Graham was thanked with applause and handshakes by many.

Michigan Work Society Gala

Another highlight of the weekend was the gala, which included tours of the U-M football locker room and field and a special appearance by former head football coach Lloyd Carr. More than a few alums were seen trying to kick a field goal or two on the field.

Lawrence-Hawkins Symposium

A unique addition to this year’s festivities was the Lawrence-Hawkins Symposium. This one-day event is devoted to basic science and clinical presentations by students, fellows and residents of the department and highlighted by a keynote presentation by a distinguished alumnus. This year we were honored to have John K. Niparko, M.D., chair of the University of Southern California, as our guest speaker.

Special Thanks

This meeting wouldn’t have been possible without the leadership of past president Michael J. LaRouere, M.D., and academic meeting faculty planner Steven A. Telian, M.D. Together they developed an excellent academic program and social events schedule. Also special thanks to Amanda Thatcher, communications manager, for her event coordination efforts. The meeting hosted the highest attendance record in society history; we hope to top it in 2016!

More Event Pictures Online

To see more pictures from the event, please visit our department Facebook page.

facebook.com/MichiganOtolaryngology

Thank you to everyone who made the trip to Ann Arbor for this fantastic weekend of events. We truly enjoyed having you back in town and hope you had a great time. We’ll be sure to announce the date for the next meeting as soon as it is available.

About the Michigan Work Society

The Michigan Work Society, formerly known as the Walter P. Work Society, was established in 1978 by alumni members in order to express their gratitude for Dr. Work’s teachings, guidance and leadership. Today the group is open to former and current department trainees and faculty. The society holds a bi-annual meeting, during which members come together to learn about the department’s progress, share scientific presentations and enjoy each other’s company through a variety of social events.

2014-2016 Michigan Work Society Officers

President
Laurence Ho, M.D.

Secretary-Treasurer
Carol R. Bradford, M.D., FACS

President-Elect
David Evans, M.D.

Past President
Michael J. LaRouere, M.D.
Ken Anderson, M.D., performed the 100th robotic hair restoration procedure in Georgia in September. His practice remains the first and only practice in Georgia to offer this procedure. Dr. Anderson's practice was also voted #1 Hair Restoration Practice in Atlanta by the readers of Best Self Magazine.

Reginald F. Baugh, M.D., received a 2014 President Citation award at the 2014 AAO-HNSF Annual Meeting & OTO EXPO. Dr. Baugh was honored for his contributions to the advancement of patient safety and quality improvement in the field.

Brian B. Burkey, M.D., M.Ed., FACS, completed his Master of Science degree in education-adult learning and development in August 2014 from Cleveland State University. This unique program was a collaborative effort between CSU and the Cleveland Clinic Foundation, and its emphasis was on health professions education.

Edward H. Farrior, M.D., FACS, served as president of the American Academy of Facial Plastic and Reconstructive Surgery. Dr. Farrior was also appointed to the American Board of Otolaryngology.

Garrett R. Griffin, M.D., was named a 2014 Top Doctor by Minnesota Monthly magazine for facial plastic and reconstructive surgery. Dr. Griffin, with his wife, Clara, also welcomed a new baby girl, Evelyn Rose.

Tim Guilford, M.D., presented at the American Academy of Environmental Medicine meeting. The presentation reviewed his research on the role of glutathione depletion in a number of chronic conditions, including infections. Dr. Guilford's research on this topic has been published in Toxins 2014 and the Journal of Interferon & Cytokine Research, and he expects additional publications in the future. Comments welcome.

Michael M. Johns III, M.D., is the 2015 American Laryngological Association Program Committee Chair for the association’s annual meeting. Dr. Johns was also elected chair of the Advisory Board for the Voice Foundation.
University of Michigan Department of Otolaryngology-Head and Neck Surgery Faculty

Carol R. Bradford, M.D., FACS, Department Chair

FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY/Cranial Base Surgery
Shan R. Baker, M.D., FACS
Michael J. Brenner, M.D., FACS
Jennifer C. Kim, M.D.
Lawrence J. Marentette, M.D., FACS
Erin L. McKean, M.D., MBA, FACS
Jeffrey S. Moyer, M.D., FACS

HEAD AND NECK ONCOLOGY
Carol R. Bradford, M.D., FACS
Kelly M. Malloy, M.D., FACS
Scott A. McLean, M.D., Ph.D., FACS
Mark E. Prince, M.D.
Andrew G. Shuman, M.D.
Matthew E. Spector, M.D.

LARYNGOLOGY, RHINOLOGY AND GENERAL OTOLARYNGOLOGY (LaRGO)
Norman D. Hogikyan, M.D., FACS
Robbi A. Kuper, M.D.
Melissa A. Pynnonen, M.D.
Jeffrey J. Stanley, M.D.
Jeffrey E. Terrell, M.D.
Mark A. Zacharek, M.D., FACS

OTOLOGY/NEUROTOLOGY
H. Alexander Arts, M.D., FACS
Gregory J. Basura, M.D., Ph.D.
Hussam K. El-Kashlan, M.D., FACS
Katherine D. Heidenreich, M.D.
Paul R. Kileny, Ph.D.
William M. King, Ph.D.
Kara Leyzac, Au.D., Ph.D.
Steven A. Teilan, M.D.
Teresa A. Zwolan, Ph.D.

PEDIATRIC OTOLARYNGOLOGY
David J. Brown, M.D.
Susan L. Garetz, M.D.
Glenn E. Green, M.D.
Jaynee H. Handelsman, Ph.D.
Charles F. Koopmann, Jr., M.D., MHSA, FACS
Marci M. Lesperance, M.D., M.S., FACS
Peter P. Passamani, M.D., FACS
Marc C. Thorne, M.D., MPH

HEAD AND NECK ONCOLOGY RESEARCH PROGRAM
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Thomas E. Carey, Ph.D.
Silvana M. Papagerakis, Ph.D.
Gregory T. Wolf, M.D., FACS*

KRESGE HEARING RESEARCH INSTITUTE
Gabriel Corfas, Ph.D., Director
Richard A. Altschuler, Ph.D.
Gregory J. Basura, M.D., Ph.D.
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Michael J. Brenner, M.D., FACS
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