BEST HOSPITALS
U.S.News & WORLD REPORT
NATIONAL
EAR, NOSE & THROAT
2019-20

THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER

Department of Otolaryngology – Head and Neck Surgery

Year in Review | FY 2019

THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Our Mission

The Ohio State Department of Otolaryngology — Head and Neck Surgery is guided by a mission to deliver exceptionally safe, high-quality and value-based care. Our team has been recognized by *U.S. News & World Report* as the #3 ENT department in the nation and the best ENT program in the state of Ohio. It is our commitment to quality that has made this possible, as well as our focus on maintaining the highest standards in patient care and research.

The department has created a desirable patient care model that has enabled continued expansion of patient volume. We focus on providing the best patient care in an excellent teaching environment. Our large and diverse patient population also provides a rich environment for medical education and research.

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The Department of Otolaryngology is composed of 10 specialty divisions:

- Allergy and Immunology
- Audiology
- Facial Plastic and Reconstructive Surgery
- General Adult and Pediatric Otolaryngology
- Head and Neck Cancer
- Otology, Neurotology and Cranial Base Surgery
- Sinus Care
- Skull Base Surgery
- Sleep Surgery
- Voice and Swallowing Disorders

Greetings from the Department of Otolaryngology – Head and Neck Surgery at The Ohio State University Wexner Medical Center.

I'm pleased to share that it's been another active and productive year. The medical center was once again named the "Best Hospital" in central Ohio, while our department moved up the rankings to be named #3 in the nation by *U.S. News & World Report*. This recognition, determined in part by the opinions of our colleagues, is a testament to our entire team's dedication to advancing medicine through research, education and patient care.

Recruiting exceptional clinical and research talent to lead this charge continues to be one of our top priorities. To expand our expertise and meet increased clinical volume, Jameson Mattingly, MD, and Nolan Seim, MD, joined our clinical faculty in Otology and Head and Neck Surgery, respectively. Yuanyuan Wang, PhD, also joined our growing Otology research faculty. Consequently, our department faculty has grown to 48 clinicians and scientists, and we expanded our research funding portfolio by an outstanding 65% between FY18 and FY19.

Our residency program also continues to improve in size and reputation, increasing from four to five residents per year. This change went into effect with the National Residency Matching Program's 2019 "Match Day," and makes our five-year accredited residency program among the largest in the nation. Continued clinical and research-driven growth of our department was a prerequisite for this expansion, and I wish to acknowledge Residency Program Director Brad deSilva, MD, for making this happen.

I also thank Minka Schofield, MD, for her tremendous efforts in deploying a Difficult Airway Response Team (DART) throughout the health system this past September. Quality and safety efforts within the medical center remain a high priority for our department, and her work on this initiative will lead to reduced sentinel events and improved patient care.

On the educational front, our department has also been working to provide learning opportunities for the otolaryngology community. In 2019, we partnered with the Naval Medical Research Unit Dayton to host the first annual Vestibular-Oriented Research Meeting in Dayton (under the leadership of Dan Merfeld, PhD). We also hosted an inaugural World Voice Day event, sponsored by the Division of Laryngology. These events will take place again in 2020 and are already set to increase in size and stature. In addition, we've also introduced the Curriculum for Ongoing Anatomy and Surgical Training (COAST)

program, led by Stephen Kang, MD. This program will enhance resident surgical education and team building, and recently kicked off with a pilot rotation within our Head and Neck division; plans to expand to other divisions are forthcoming.

In addition to their clinical responsibilities, our faculty remains committed to embracing new leadership opportunities. Of special note, Dr. Schofield was elected as chief of staff for Ohio State Wexner Medical Center; Amit Agrawal, MD, was elected as chief of staff for The Ohio State University Comprehensive Cancer Center — James Cancer Hospital and Richard J. Solove Research Institute; Ricardo Carrau, MD, was selected as president of the board of directors for the North American Skull Base Society; and Laura Matrka, MD, was inducted into the prestigious Triological Society's Harris P. Mosher Society. We could not be more proud of their achievements and contributions to our field and healthcare system.

The past year has been remarkable and I expect 2020 to be a year of further growth and success. Our department has a number of active clinical and research recruits, we are evaluating space for our vestibular center, and we are laying groundwork for a large-scale effort to improve childhood hearing in Ohio. Further departmental opportunities will arise with the introduction and evolution of several medical center ventures, including the commitment to build a new $155.9 million Interdisciplinary Health Sciences Center; the launch of the Healthy State Alliance with Mercy Health; and an increase in Ohio State College of Medicine research funding by $50 million.

I am honored to serve this department and look forward to guiding us in our advancement of the academic mission. On behalf of all of us, I hope you enjoy our annual report.

Sincerely,

James Rocco, MD, PhD
Professor and Chair, Department of Otolaryngology – Head and Neck Surgery
Interim Dean, The Ohio State University College of Medicine
The Mary E. and John W. Alford Cancer Research Chair in Head and Neck Cancer
Director, Head and Neck Disease Specific Research Group

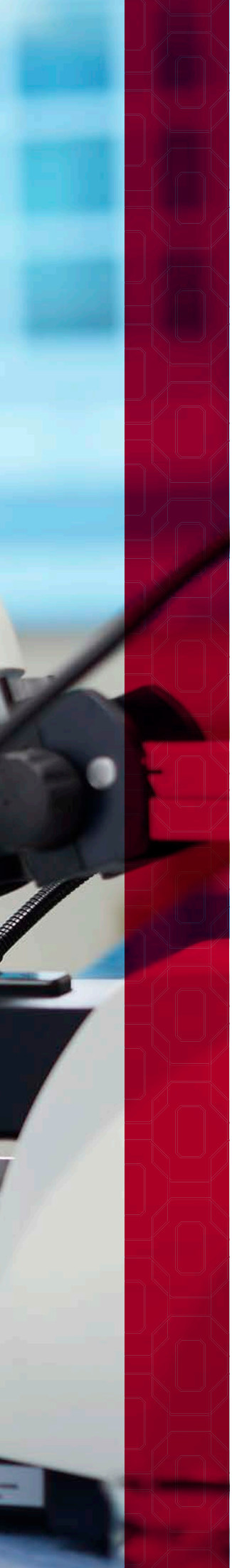

TABLE OF CONTENTS

RESEARCH

FY2019 by the Numbers

Faculty: **21**

Funding: **$4,677,289***

Active grants: **13***

NIH funding: **$3,912,681***

NIH grants: **12*** (includes 5 R01s, 3 R21s, 1 R13, 1 K23, 1 F32, and 1 R01 supplement)

Non-NIH federal grants: **1** Department of Defense

Clinical trials: **20**

Publications: **141**

* The Ohio State University College of Medicine funding only

Inaugural Vestibular Research Meeting a Success

When Dan Merfeld, PhD, overheard a group of researchers talking about the dearth of meeting opportunities for their particular area of focus, he realized that his own area of interest — the vestibular system — also lacked a dedicated, regular meeting.

Dr. Merfeld, professor and vice chair of research in The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery, quickly gathered an informal planning committee. Together, they pooled contact information for vestibular researchers across multiple specialties and drafted a blanket email to gauge interest in attending a meeting focused on vestibular function.

"We reached out to about 100 people not knowing what to expect," Dr. Merfeld says. To his surprise, more than half responded – almost all saying "yes."

"At that point, I was willing to say, 'If we build it, it does sound like they will come.'"

Dr. Merfeld and his committee did build the meeting. The inaugural Vestibular-Oriented Research Meeting was held in Dayton, Ohio, in May 2019. Nearly 150 people attended the Sunday-Wednesday event, which included tours of the Naval Medical Research Unit Dayton, where Dr. Merfeld serves as senior vestibular scientist.

Trainees a Major Meeting Focus

Among the objectives of the Vestibular-Oriented Research Meeting is to support young investigators. Dr. Merfeld and team were awarded an R13 grant from the National Institutes of Health, which provides $40,000 annually for three years in support of meeting facilities and trainee travel expenses.

The meeting agenda included a trainee mentor session, which allowed young investigators to circulate among more senior clinicians and researchers to discuss a variety of topics, including publishing and grant writing.

A poster session allowed trainees to showcase their work, and a lightning-round presentation gave them a few minutes at the podium to present their poster.

A Needed Gathering

At its core, the vestibular system is a sensory system. But, Dr. Merfeld says, it has fundamental contributions to many of our behaviors.

"The vestibular system contributes to movement, balance, perception of self-motion. It also contributes to autonomic responses — things that keep us alive — like making sure blood flows to the brain."

With such wide-reaching impact on the human body, it was important to bring vestibular-associated research and clinical communities together.

"There are meetings that otologists go to. There's a meeting that neurologists might go to. There's a society for neuroscience," Dr. Merfeld says. "Everyone is working in their own cloister with their own perspective."

While it's too soon to tell if the first Vestibular-Oriented Research Meeting spurred any collaborations, it did create an environment for idea sharing, Dr. Merfeld says.

> *"The idea for this meeting was to bring together communities of vestibular researchers in order to share work and perspectives. I think we achieved that, and continuing to meet will only benefit the patients we ultimately seek to help,"*
>
> Dr. Merfeld says.

Plans are already underway for the next Vestibular-Oriented Research Meeting, which will be held in May as a satellite meeting to the American Academy of Neurology meeting in Toronto. For more information about the meeting, visit go.osu.edu/VORmeeting.

Ohio State Launches Novel Study of Children With Cochlear Nerve Deficiency

Researchers Aim to Improve Cochlear Implant Outcomes in This Unique Patient Population

Physicians and scientists from The Ohio State University, Nationwide Children's Hospital and the University of North Carolina at Chapel Hill have joined forces to improve care for pediatric cochlear implant users who have cochlear nerve deficiency (CND).

Supported by a $2.02 million R01 grant from the National Institutes of Health, the team aims to better understand how children with small or absent cochlear nerves encode and process electrical signals generated by cochlear implants. They hope to develop the first set of evidence-based guidelines for programming cochlear implant processors in children with CND.

Cochlear implant users need customized programming

Although cochlear implantation has been used to treat children with CND for nearly 20 years, most of these patients don't meet important speech and language milestones — especially compared to children with normal-size cochlear nerves.

Ordinarily, cochlear implants help restore hearing by capturing sound signals and converting them to electrical impulses. These impulses stimulate the cochlear nerve, which carries auditory information from the inner ear to the brain.

Following cochlear implantation, audiologists program the external speech processor to pick up soft and loud sounds. Over time, patients learn to interpret these sounds and hopefully develop speech and language skills.

"Audiologists typically try their best to fine-tune the settings for many children based on their assertions that they can hear different sounds coming through the device," says Shuman He, MD, PhD, associate professor in Ohio State's Department of Otolaryngology – Head and Neck Surgery and the study's principal investigator. "However, more than half of children with CND have concurrent neurological issues that prevent them from providing reliable behavioral responses. As a result, it's clinically challenging or impossible to optimize programming settings for these patients."

Exploring a link between damaged nerves, auditory processing

Dr. He says there's zero clinical evidence to support the selection of programming parameters, and limited understanding of how deficient cochlear nerves respond to electrical stimulation.

"Without knowing the lowest level these children can hear, or the highest level they can tolerate, we rely on a combined 'one-size-fits-all' and 'try-and-see' approach and hope it works," she says.

Over the next five years, Dr. He and her team plan to enroll 164 pediatric cochlear implant users. Half will have CND, and half will have normal-sized cochlear nerves, as measured by high-resolution MRI.

"Our previous research found that the likelihood of measuring cochlear nerve neural responses in children with CND reduced as the stimulating electrode site moved from the base of the apex to the cochlea," Dr. He says. "This unique response-deterioration pattern isn't observed in children with normal-size cochlear nerves."

First, they'll test how well each child's cochlear nerve responds to the electrical stimulation sent by their cochlear implant at different locations along the cochlea. Then they'll compare both groups to evaluate the differences in how their nerves responded and, subsequently, how that affected auditory processing at the brain level.

"Our previous research found that the likelihood of measuring cochlear nerve neural responses in children with CND reduced as the stimulating electrode site moved from the base of the apex to the cochlea," Dr. He says. "This unique response-deterioration pattern isn't observed in children with normal-size cochlear nerves."

An urgent need to create objective clinical tools

As candidacy criteria continue to evolve, more patients with CND may become eligible for cochlear implantation. Among children with bilateral, severe to profound hearing loss, the prevalence rate of CND is around 5%. But in children with single-side deafness, the prevalence can be up to 50%.

"Although current guidelines limit cochlear implantation to children with profound bilateral hearing loss, we may eventually implant children with hearing loss in just one ear," Dr. He says. "Once we begin putting cochlear implants in children with single-side deafness, we'll face significant challenges in how to program around half of them."

Addressing hearing impairment across the life span

The joint cochlear implant program at Ohio State Wexner Medical Center and Nationwide Children's Hospital is one of the busiest in the country, performing an average of 80 adult and 80 pediatric surgeries annually. This collaboration also fosters innovative research that benefits patients of all ages.

In addition to Dr. He's new study, other scientific projects underway or in the works include:

- **Investigating the underlying neurophysiological mechanisms of speech perception deficits in older cochlear implant users to better understand why users 65 years or older typically show poorer speech perception performance than younger adult users**
- **Developing electrophysiologic technology that evaluates inner ear function and minimizes intracochlear damage, in real time, during pediatric and adult cochlear implant surgeries**
- **Exploring how deafness caused by different genetic mutations affects neurological function and cochlear implant outcomes**

First-of-Its-Kind Study Examines Link Between Visual Habituation, Cognitive Development Among Deaf Infants

Research Team Also Launching Novel Study on Congenital Hearing Loss and Language Development

New data published by researchers from The Ohio State University and partner institutions show hearing loss may impact infants' visual processing abilities and subsequent cognitive development.

Their findings bolster previous research confirming congenital hearing loss affects many non-auditory skills, including working memory and sequence processing. Collectively, such results suggest that early interventions should address the whole child, not just the ear.

A Simple Measure With Significant Meaning

Habituation, or the idea that an organism's response to a stimulus decreases over time, is a basic but fundamental process shared by all living creatures. When human babies interact with their environments, they stare at new visual stimuli until the objects are fully encoded in their cognitive systems — in other words, until the objects become familiar. That's when babies lose interest in these objects and look away.

"Visual habituation has been used for decades to measure how quickly and how well infants process visual information," says Derek Houston, PhD, director of research at Ohio State's Buckeye Center for Hearing and Development and the study's senior investigator. "The premise is that infants who process information more quickly habituate more quickly. And there are correlations between habituation rate during infancy and abilities like nonverbal IQ later in childhood."

Key Conclusions

Aided by funding from the National Institute on Deafness and Other Communication Disorders, Dr. Houston and his team investigated whether deaf and hearing infants show different rates of visual habitation. They tested 23 deaf infants between 7 and 22 months of age who were candidates for cochlear implants, along with 23 age-matched, normal-hearing infants.

The infants were shown a novel, colorful object several times during a testing session. The team recorded how long the infants looked at the object during each presentation to track their "look-away rate" and measure how long it took to habituate.

"Our deaf infants took significantly longer to habituate to visual stimuli and showed a slower rate of habituation," Dr. Houston says. "Because our experiment didn't involve sound or require hearing, it suggests that lack of hearing affects certain aspects of cognitive function very early in life."

Dr. Houston says it's too early to apply their results to clinical practice, however, and they've moved a step forward in understanding deaf infants' holistic development.

"It's speculative, but perhaps visual information is more important for deaf infants than hearing infants," he says. "They may adapt to their hearing loss by processing stimuli more deeply or in more detail, which comes across as 'slower' habituation. Our next phase of research will likely test this hypothesis."

"Our deaf infants took significantly longer to habituate to visual stimuli and showed a slower rate of habituation," Dr. Houston says. "Because our experiment didn't involve sound or require hearing, it suggests that lack of hearing affects certain aspects of cognitive function very early in life."

New NIH Funding May Lead to New Insights Into Language Outcomes

Thanks to a $3.2 million grant from the National Institutes of Health, Dr. Houston and his colleagues are ready to launch another novel study in early 2020 in collaboration with researchers from Indiana University. The team will work to better understand how parent-child interactions influence word learning. This is key to acquiring spoken language skills.

"There's a correlation between language development and a child's ability to learn associations between words and their referents, known as novel word learning," Dr. Houston says. "Successful word learning in typical normal-hearing children depends on the real-time, quantitative and qualitative properties of parent-child social interactions. This includes the synchrony that occurs when parents name objects and their child pays attention to those objects. However, many young children with cochlear implants struggle to learn novel words and, thus, have poorer language outcomes."

To test their idea that the atypical auditory experiences of cochlear implant users influence naming synchrony — which affects word-learning opportunities and language outcomes — the team will collect multiple streams of data from parents and their children as they play with each other, and as parents spontaneously name novel objects. They plan to compare differences in language outcomes among 40 children with cochlear implants; 40 age-matched, normal-hearing children; and 40 language-matched, normal-hearing children.

"We'll investigate the role of congenital deafness and subsequent cochlear implantation on naming synchrony and explore potential mechanisms that may account for differences in outcomes, including micro-level properties of social interactions," Dr. Houston says. "Our insights may lead to new intervention studies involving precise feedback on parent-child coordination."

Integrating Research, Clinical Care

These pioneering studies are just two of many research efforts supported by the Buckeye Center for Hearing and Development. The center launched in 2016 and brought together clinicians and scientists from Ohio State and Nationwide Children's Hospital. Together they're leading scientific projects that may help improve patient outcomes, including:

- **Developing electrophysiologic technology that evaluates inner ear function and minimizes intracochlear damage, in real-time, during pediatric and adult cochlear implant surgeries**
- **Understanding why some adults understand speech better than others following cochlear implantation, to better predict which patients may be at risk for poor outcomes**
- **Developing objective clinical tools for optimizing cochlear implant settings among children with cochlear nerve deficiency**

"Through this partnership, we aim to set new standards for melding research and clinical care," Dr. Houston says. "Ultimately, this will help us better address hearing impairment among people of all ages."

Allergy and Immunology Director to Lead Arm of Global Eosinophilia Study

Before joining The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery, Princess Ogbogu, MD, trained in allergy and immunology at the National Institutes of Health National Institute of Allergy and Infectious Disease (NIAID). There, both as a trainee and clinician-scientist, she studied eosinophilic disorders — a group of disorders characterized by the presence of a higher-than-normal white blood cell count.

A year after joining the Wexner Medical Center team, Dr. Ogbogu published what has become the most-cited study on hypereosinophilic syndrome (HES), a group of symptoms associated with persistent elevated white blood cell counts.

She'll now lead the "eosinophilia of unknown significance" arm of a four-part global study on eosinophilic disorders. For her part, Dr. Ogbogu hopes to learn more about the factors that contribute to a person's transition from a symptom-free elevated white blood cell count to HES.

"This study marks the 10-year follow-up on our earlier work on HES, but it's being expanded to answer a broader set of questions about eosinophilic disorders," Dr. Ogbogu says.

Anchored at the NIH where data will be stored, the global study will also seek to understand more about the use of biologics to treat HES and about gastrointestinal disorders associated with HES. Researchers also hope to understand clinical features of a myeloid variant of HES.

Dr. Ogbogu anticipates the retrospective study will take one year to complete.

"High eosinophil, or white blood cell counts, are worrisome for providers," Dr. Ogbogu says. "Frequently, these patients are sent to allergists, but often allergies aren't to blame. That's why we also look closely at the immune system and consider other immune disorders.

"The challenge is, HES is a diagnosis of exclusion," she says. "The more we can learn about it, the better we become at diagnosing or even predicting it."

Dr. Ogbogu joined the Ohio State Wexner Medical Center in 2008 and was integral in starting the allergy/immunology fellowship training program. In 2013, she was named director of Allergy and Immunology. Her early work on HES has proven invaluable in guiding physicians to best manage and treat patients with HES.

Ohio State Appoints New Research Faculty

Yuanyuan Wang Brings Linguistics Experience to Study of Infant-Directed Speech

In July 2019, three years after joining The Ohio State University as a postdoctoral researcher, Dr. Yuanyuan Wang was appointed to the Department of Otolaryngology – Head and Neck Surgery as a research assistant professor.

Prior to joining Ohio State, Dr. Wang was a PhD candidate at Purdue University's Department of Linguistics. There she received interdisciplinary training in linguistics and speech and hearing science — including opportunities to conduct research on infant speech processing.

That unique combination of knowledge and experience made her an ideal candidate for a postdoctoral position available at Ohio State in 2016. She was hired to support a research project called Infant-Directed Speech and Language Development in Infants with Hearing Loss, funded by the National Institutes of Health.

"That study examines the role of infant-directed speech language development in children with hearing loss," Dr. Wang says. "We're researching an input called infant-directed speech, which occurs when parents speak to their infants directly and frequently. Our goal is to learn how that input impacts word-learning and language development in children with cochlear implants. During my PhD training I examined the properties of infant-directed speech, and that experience aligns well with our study objectives."

In her new role, Dr. Wang will have time to lead her own research projects. She intends to study how children with hearing loss pay attention to speech, and how that ability impacts language development. Previous research has shown that attention to speech, which significantly predicts language outcomes, is reduced among kids with hearing loss, compared to their normal-hearing peers.

"One of my career goals is to understand the different factors that affect language development, including infant-directed speech and speech processing skills," Dr. Wang says. "By comparing how these different factors interact to influence language development, we may better understand language variabilities in children — which could ultimately lead to new, early interventions for children with hearing loss."

FACIAL PLASTICS

Leslie Kim, MD—A Prospective Randomized Double Blind Trial to Assess the Effect of a Single Preoperative Dose of Gabapentin on Postoperative Opioid Consumption in Patients Undergoing Rhinoplasty

GENERAL

Eugene Chio, MD—Adherence and Outcome of Upper Airway Stimulation for Obstructive Sleep Apnea International Registry

HEAD AND NECK

Stephen Kang, MD—A Registry to Evaluate the Flexitouch System and Flexitouch Plus for Treatment of Head and Neck Lymphedema

Matthew Old, MD—Phase II Trial of Adjuvant Cisplatin and Radiation With Pembrolizumab in Resected Head and Neck Squamous Cell Carcinoma

Matthew Old, MD—Nivolumab and BMS986205 in Treating Patients With Stage II-IV Squamous Cell Cancer of the Head and Neck

Enver Ozer, MD—Transoral Robotic Surgery in Treating Patients With Benign or Malignant Tumors of the Head and Neck

James Rocco, MD, PhD—Radiation Therapy With or Without Cisplatin in Treating Patients With Stage III-IVA Squamous Cell Carcinoma of the Head and Neck Who Have Undergone Surgery

James Rocco, MD, PhD—Cetuximab and Nivolumab in Patients With Recurrent/Metastatic Head & Neck Squamous Cell Carcinoma

LARYNGOLOGY

Brad deSilva, MD—Voice Outcomes Following Transcutaneous Steroid Injection for Vocal Fold Nodules Combined With Voice Therapy Compared to Voice Therapy Alone
(Co-investigators – Laura Matrka, MD, and Brandon Kim, MD)

Brad deSilva, MD—Customized Tracheostomy Fistula Plug
(Co-investigators – Laura Matrka, MD, and Brandon Kim, MD)

Active Clinical Trials FY19

The Department of Otolaryngology — Head and Neck Surgery continues to be a national leader in the exploration of otolaryngology and human communication disorders through 20 active clinical trials.

OTOLOGY, NEUROTOLOGY AND CRANIAL BASE SURGERY

Oliver Adunka, MD—A Proposal to Evaluate Revised Indications for Cochlear Implant Candidacy for the Adult CMS Population
(Co-investigators – Ed Dodson, MD, and Aaron Moberly, MD)

Oliver Adunka, MD—Clinical Evaluation of the Cochlear Nucleus® CI532 Cochlear Implant in Adults
(Co-investigators – Ed Dodson, MD, and Aaron Moberly, MD)

Oliver Adunka, MD—Cochlear Implantation during Vestibular Schwannoma Removal or During Labyrinthectomy Surgery for Treatment of Meniere's Disease
(Co-investigators – Ed Dodson, MD, and Aaron Moberly, MD)

Edward Dodson, MD—Regional Anesthesia for Otologic Surgery
(Co-investigators – Aaron Moberly, MD, and Jameson Mattingly, MD)

Aaron Moberly, MD—Aural Rehabilitation for Adults Receiving Cochlear Implants

Aaron Moberly, MD—Randomized Control Trial of Immediate Versus Delayed Cochlear Implantation: Hearing in Older Adults Study
(Co-investigators – Oliver Adunka, MD, and Ed Dodson, MD)

Christin Ray, PhD—Aural Rehabilitation: Contributing Factors and Speech Recognition Changes for Cochlear Implant Users

RHINOLOGY

Alex Farag, MD—Treatment of Post-operative Sinonasal Polyposis With Topical Furosemide

Brad Otto, MD—A Prospective, Non-Randomized Study to Evaluate Treatment Outcome of Nasal Airway Obstruction Using the Aerin Medical Vivaerä Stylus
(Co-investigators – Alex Farag, MD, and Kai Zhao, PhD)

Kai Zhao, PhD—Olfactory Training for Patients With Olfactory Losses

ACTIVE NIH FUNDING

Lauren Bakaletz, PhD, PI 09/30/1999 – 07/31/2020 NIH/NIDCD R01DC003915
Determinants of H. Influenzae Virulence in Otitis Media

Lauren Bakaletz, PhD, PI 07/20/2011 – 08/31/2021 NIH/NIDCD R01DC011818
Novel Immunotherapeutics for the Management of Otitis Media Due to H. Influenzae

Lauren Bakaletz, PhD, PI 08/01/2016 – 07/31/2021 NIH/NIDCD R01DC015688
Otitis Media: Role of Epigenetic Regulation on NTHI Pathogenesis and Optimal Vaccine Design

Lauren Bakaletz, PhD, PI 06/04/2018 – 05/31/2023 NIH/NIDCD R01DC015687
International Symposia on Recent Advances in Otitis Media

Irina Castellanos, PhD, PI 03/01/2017 – 02/28/2020 NIH/NIDCD R13DC017389
Psychosocial Outcomes in Deaf Children With Cochlear Implants

Tendy Chiang, MD, PI 07/14/2017 – 06/30/2022 NIH/NHLBI K08HL138460
Mechanisms of Regeneration in Tissue Engineered Tracheal Grafts

Active Research Funding FY19

The Department of Otolaryngology — Head and Neck Surgery proudly expanded its research funding portfolio by 65% between FY2018 and FY2019.

Shuman He, MD, PhD, PI	04/01/2019 – 03/31/2024	NIH/NIDCD	R01DC017846
Neural Encoding and Auditory Processing of Electrical Stimulation in Pediatric Cochlear Implant Users			
Shuman He, MD, PhD, PI	01/15/2018 – 06/30/2022	NIH/NIDCD	R01DC016038
Neural Encoding and Auditory Perception in Cochlear Implant Users			
Derek Houston, PhD, PI **Oliver Adunka, MD, CI**	08/14/2015 – 06/30/2020	NIH/NIDCD	R01DC008581
Infant-Directed Speech and Language Development in Infants With Hearing Loss			
Daniel Merfeld, PhD, PI **Oliver Adunka, MD, Co-PI**	03/15/2019 – 02/28/2022	NIH/NIDCD	R13DC017921
Vestibular-Oriented Research Meetings			
Daniel Merfeld, PhD, PI	03/01/2016 – 02/28/2019	NIH/NIDCD	R21DC014909
Employing Magnetic Vestibular Stimulation (MVS) During Functional Imaging			
Daniel Merfeld, PhD, PI	07/01/2015 – 06/30/2020	NIH/NIDCD	R01DC014924
Employing Vestibular Thresholds to Improve Patient Diagnosis			

ACTIVE NIH FUNDING *CONT.*

Aaron Moberly, MD, Co-PI 09/21/2018 – 08/31/2020 NIH/NIDCD R21DC016972
Garth Essig, Jr., MD, CI
Auto-Scope Software-Automated Otoscopy to Diagnose Ear Pathology

Aaron Moberly, MD, PI 04/01/2017 – 03/31/2022 NIH/NIDCD K23DC015539
Variability in Speech Recognition for Adults With Cochlear Implants: Bottom-up and Top-down Factors

Claire Monroy, PhD, PI 03/01/2018 – 02/28/2021 NIH/NIDCD F32DC017076
Irina Castellanos, PhD, Co-Mentor
Derek Houston, PhD, Co-Mentor
Action and Interaction in Infants With Hearing Loss, Before and After Cochlear Implantation

Ruili Xie, PhD, PI 09/19/2017 – 08/31/2022 NIH/NIDCD R01DC016037
Cellular Mechanisms of Age Related Hearing Loss

Kai Zhao, PhD, PI 03/01/2019 – 03/01/2021 NIH/NIDCD R21DC017530
Endoscopic Nasal Sinus Surgery Simulator to Optimize Treatment Outcome

Kai Zhao, PhD, PI 12/01/2014 – 11/30/2019 NIH/NIDCD R01DC013626
Objective Evaluation of Conductive Olfactory Losses and Nasal Obstruction Symptoms

ACTIVE NON-NIH RESEARCH FUNDING

Derek Houston, PhD 08/01/2017 – 02/28/2019 OBERKOTTER FOUNDATION
Children's Hearing and Language Development Resource Network [CHLDRN] of Ohio Community Collaborative

Jameson Mattingly, MD, PI 07/01/2019 – 06/30/2020 Hearing Health Foundation
Differentiating Meniere's Disease and Vestibular Migraine Using Audiometry and Vestibular Threshold Measurements

Daniel Merfeld, PhD, PI 04/15/2019 – 04/14/2023 Army Medical Research Acquisition Activity (DOD)
Evaluating a Portable Virtual-Reality (VR) Balance Test as a Vestibular Assessment Screen

Daniel Merfeld, PhD, PI 01/29/2019 – 01/28/2020 NAMRU-D
NAMRU-D Vestibular Research (IPA)

Daniel Merfeld, PhD, PI 10/01/2017 – 02/28/2020 Environmental Tectonics Corporation
Mathematical Model of Spatial Orientation

Aaron Moberly, MD, Co-PI 01/01/2017 – 12/31/2019 Cochlear Corporation
Aural Rehabilitation for Adults With Cochlear Implants

Rekha Raveendran, MD, PI 06/01/2018 – 11/30/2020 NCH
Efficacy of the PS Rocker: A Multi Head Skin Prick Testing Device

Jason Riggs, Aud, PI 07/01/2019 – 06/30/2020 Hearing Health Foundation
Electrophysiological Characteristics in Children With Auditory Neuropathy Spectrum Disorder

James Rocco, MD, PhD 03/28/2019 – 02/28/2025 NCI UG1CA233331
*Scientific Leadership: OSU as a Network Lead Academic Participating Site for the NCI NCT*N

Kara Wada, MD 04/17/2018 – 05/31/2019 OSU Patient Safety and Advancement
Comprehensive Quality Improvement Strategy to Address Penicillin Allergy Documentation and Evaluation – A Pilot Initiative

Kai Zhao, PhD, PI 04/01/2019 – 10/31/2019 Ohio Department of Higher Education
Relieve Nasal Obstruction Symptoms Through Modulation of Airflow Via a Novel Nasal Plug

Highlighted Publications

In FY19, the Department of Otolaryngology – Head and Neck Surgery at The Ohio State University Wexner Medical Center published more than 140 articles. Here are highlights of those publications. For a complete list please visit **wexnermedical.osu.edu/departments/otolaryngology/publications**.

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Moberly AC, Zhang M, Yu L, Gurcan M, Senaras C, Teknos TN, **Elmaraghy CA**, Taj-Schaal N, **Essig GF**. Digital Otoscopy Versus Microscopy: How Correct and Confident Are Ear Experts in Their Diagnoses? J Telemed Telecare. 2018 Aug;24(7):453-459. doi: 10.1177/1357633X17708531. Epub 2017 May 8. PubMed PMID: 28480781.

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CLINICAL PRACTICE

FY2019 by the Numbers

Physicians: **26**

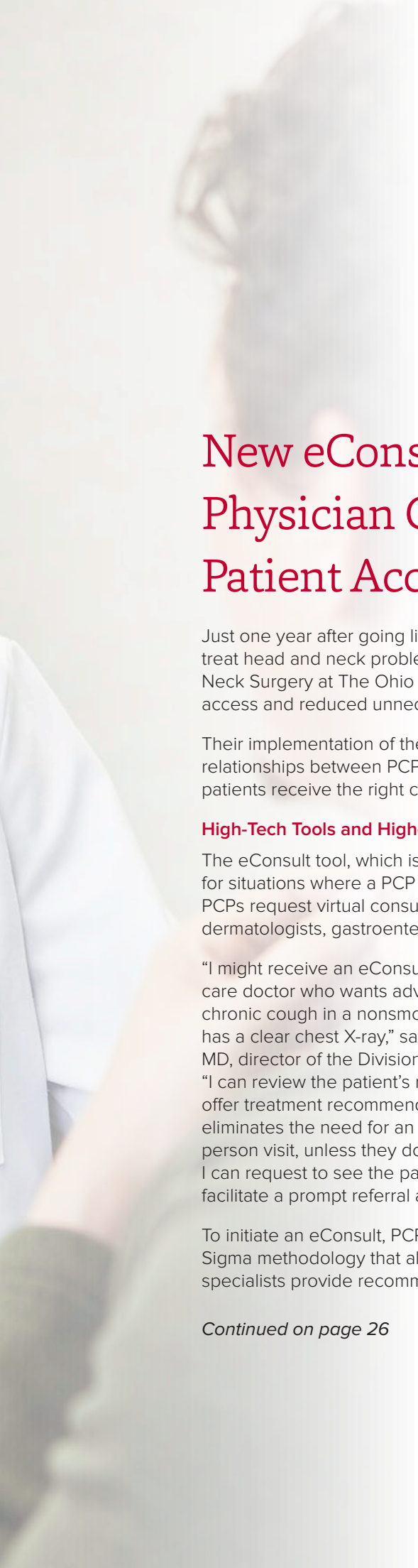
Clinic appointments: **26,312**

Inpatient and outpatient surgeries: **4,551**

wRVUs: **207,572**

Cochlear implants: **109**

Sleep apnea surgical Inspire implants: **72**



New eConsult Service Strengthens Physician Collaboration and Patient Access

Just one year after going live with an eConsult service to help primary care providers (PCPs) treat head and neck problems, physicians in the Department of Otolaryngology – Head and Neck Surgery at The Ohio State University Wexner Medical Center have improved patient access and reduced unnecessary office visits.

Their implementation of the eConsult service is part of a broader effort that's strengthening relationships between PCPs and specialists across the Ohio State system, while ensuring patients receive the right care at the right time.

High-Tech Tools and High-Quality Care

The eConsult tool, which is integrated with Ohio State's electronic medical record, is ideal for situations where a PCP isn't sure whether their patient should see a specialist. It lets PCPs request virtual consultations with otolaryngologists and other specialists, including dermatologists, gastroenterologists and pulmonologists.

"I might receive an eConsult from a primary care doctor who wants advice on treating chronic cough in a nonsmoking patient who has a clear chest X-ray," says Brad deSilva, MD, director of the Division of Laryngology. "I can review the patient's record and offer treatment recommendations, which eliminates the need for an additional in-person visit, unless they don't improve. Or I can request to see the patient and help facilitate a prompt referral and appointment."

> *"Our primary care colleagues can feel confident they're providing the right treatment advice. And as subspecialists, we can expedite in-person consultations for those patients we believe should be seen right away." Brad deSilva, MD*

To initiate an eConsult, PCPs fill out a short, standardized template designed using Six Sigma methodology that allows them to ask a specific clinical question. Then, responding specialists provide recommendations within three business days.

Continued on page 26

Continued from page 25

A Simple, Cost-Effective Way to Optimize Care

This new telehealth opportunity benefits patients and physicians by removing common access challenges.

"Some of our specialty areas are in high demand and the wait time for consultations is less than ideal," says Jay Lawrence, MD, Ohio State's associate chief quality officer for Ambulatory Care and the eConsult program lead. "This is compounded by the fact that a significant number of patients seen by our specialists don't actually need in-person visits."

Dr. Lawrence says that both PCPs and specialists have reported high satisfaction with eConsults.

"Not only is this one of the only inbox activities our physicians get RVU credit for executing, but there's no confusion about who retains accountability for the patient, avoiding unnecessary specialist follow-up and further strain on access," he says. "The eConsult is basically a structured and well-documented curbside consult."

A preliminary data analysis among participating dermatologists found that patients who were converting from an eConsult to an in-office visit tended to get in sooner and their no-show rate was significantly lower.

In addition to chronic cough, Ohio State's otolaryngologists frequently respond to eConsults concerning the following symptoms or conditions:

- **Dizziness**
- **Dysphagia**
- **Dyspnea**
- **Hearing loss**
- **Hoarseness**
- **Nasal obstruction**
- **Neck mass**
- **Sinusitis**

Many Benefits, Few Burdens

Dr. deSilva says that in the otolaryngology department, eConsults have helped augment clinical care without placing too many extra demands on providers. He and three other otolaryngologists —Oliver Adunka, MD, Eugene Chio, MD, and Alexander Farag, MD — volunteered to help with the initial implementation and now collectively manage incoming eConsult requests.

"A year after the rollout, we're averaging about 10 eConsults a month and expect this volume to grow," he says. "But with so many department faculty members interested in helping with these virtual consultations, we can easily scale up to meet demand."

Dr. deSilva says that the program's benefits easily outweigh the added time it takes to manage these new tasks.

"We're making sure patients get the appropriate level of care, and it's a win-win for Ohio State providers," he says. "Our primary care colleagues can feel confident they're providing the right treatment advice. And as subspecialists, we can expedite in-person consultations for those patients we believe should be seen right away."

Dr. Lawrence says that within the next six months, he anticipates the eConsult service will be live across 19 specialty areas — and may eventually become available to referring providers outside of Ohio State.

"There is a lot of interest within the community to be able to access our specialists," he says. "We share their interest and are working on the technical and operational solutions needed to offer this resource more broadly."

Welcome New Physicians

Nolan Seim, MD

Nolan Seim, MD, has been appointed assistant professor in The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery.

A member of the head and neck surgical oncology team at The Ohio State University Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, Dr. Seim treats all cancers of the head and neck, including oral cavity and upper aerodigestive tract tumors, thyroid and parathyroid disease, as well as salivary gland, sinonasal and skin cancers. He's trained in both head and neck surgical oncology and microvascular reconstruction.

Dr. Seim's goal is to make each person he sees feel welcome and well cared for.

"People come to see us during very complicated, serious and significant times in their lives," Dr. Seim says. "I want them to feel like a friend or family member."

Dr. Seim completed his residency training at The Ohio State Wexner Medical Center, serving as chief resident from July 2017 through June 2018. His return to Columbus follows a yearlong fellowship in head and neck cranial base surgery and microvascular reconstruction at Vanderbilt University Medical Center in Nashville, Tennessee.

In spring 2020, Dr. Seim will take over as ENT medical student director. In this role, he'll guide the otolaryngology curriculum and coordinate interaction between medical students at The Ohio State University College of Medicine and the Ohio State Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery.

A central Kansas native, Dr. Seim completed his undergraduate and medical school training at the University of Kansas, spending time on that university's Lawrence and Kansas City campuses.

He's completed five ENT surgical mission trips — most recently to Kenya, where he provided head and neck surgical care through the nonprofit organization More Than Medicine. He looks forward to continuing his work abroad and plans to return in the near future.

Jameson Mattingly, MD

Jameson Mattingly, MD, has been appointed assistant professor in The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery.

Dr. Mattingly specializes in otology, neurotology and cranial-base surgery, providing all aspects of care for the ear as well as tumors within the skull base surrounding the ear.

It was his fascination with the complex anatomy of the head and neck that drew Dr. Mattingly to the specialty of otolaryngology, but it's the chance to make a positive impact on patients that makes his work so satisfying.

"It's rewarding to help people who've had problems with their sensory organs," Dr. Mattingly says. "When I can help them achieve a significant improvement in hearing, speaking, eating or drinking, for example, they can have a better quality of life."

In addition to seeing patients, Dr. Mattingly conducts vestibular research. In the lab of Dan Merfeld, PhD, professor and vice chair of Research for the Department of Otolaryngology – Head and Neck Surgery, Dr. Mattingly is seeking better ways to diagnose vestibular disorders, which can be difficult to differentiate. He's working toward a National Institutes of Health K award, which would offer him the protected time he needs to develop his own research program.

A Kentucky native, Dr. Mattingly earned his medical degree at the University of Louisville and completed residency training in otolaryngology at the University of Colorado. He joined Ohio State Wexner Medical Center in 2017 as a neurotology fellow.

Columbus Zoo Turns to Ohio State Wexner Medical Center for Help

Allergist Rekha Raveendran Tests Bonobo for Food Allergies

When Unga, a 26-year-old bonobo at the Columbus Zoo, experienced hives and facial swelling, the zoo's veterinary team turned to The Ohio State University Wexner Medical Center for help.

Specifically, they sought the help of Rekha Raveendran, MD, allergist and assistant professor in the Ohio State Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery.

"When I saw a message in my email inbox about a bonobo with a suspected food allergy, I immediately assumed it was spam," Dr. Raveendran says. "But the message was so detailed, it actually sounded real. I couldn't help but be intrigued."

"When I saw a message in my email inbox about a bonobo with a suspected food allergy, I immediately assumed it was spam," Dr. Raveendran says. "But the message was so detailed, it actually sounded real. I couldn't help but be intrigued."

The zoo team was concerned that a nutrient-fortified biscuit in Unga's diet was the cause of her symptoms, but they couldn't be sure. The team had done some testing on Unga, but because of the pygmy chimpanzee's close relationship to humans, they wanted a human allergist's perspective.

Dr. Raveendran called the zoo that evening to discuss.

She learned that, in addition to her allergy-like symptoms, Unga was also experiencing gastrointestinal problems, for which the zoo team sought the assistance of another Ohio State Wexner Medical Center physician, Dr. Philip Hart.

In July 2019, Drs. Raveendran and Hart made their way to the Columbus Zoo to conduct a series of tests with Unga — all of which were caught on film by National Geographic for its "Secrets at the Zoo" series.

A Different Kind of Preparation

The zoo's request was a first for Dr. Raveendran, so she wasn't sure what to expect.

"When we do skin testing for allergies in humans, we test the mast cells in the skin against specific allergens. We're able to see the reactions we need to see with small skin pricks on the backs of the arms," Dr. Raveendran says. "Mast cell distribution in bonobos isn't as straightforward."

To account for any differences they might encounter, the team brought along standard human skin-prick tests and intradermal needle test kits. The intradermal needles, though not commonly used for food allergy testing in humans, go under the skin.

"We brought the intradermal tests along in case Unga didn't respond well to standard skin-prick testing," Dr. Raveendran says. "We were glad we had them."

Dr. Raveendran and Ohio State Wexner Medical Center nurse Arnold Gillam did close to 70 intradermal tests on Unga to check for both food and environmental allergies. Because these tests aren't standard for food allergy testing, the team had to develop their own food-allergen injection concentrations.

What they found was that Unga had some reaction to soy and corn. They were also able to re-confirm the zoo's own previous findings that Unga had sensitivity to mold.

The Takeaway

Following the testing by the Ohio State Wexner Medical Center team, the zoo removed the biscuit from Unga's diet. They also made improvements to her living quarters to improve air quality. Despite these changes, Unga's hives continued.

"We weren't expecting to see this," Dr. Raveendran says. "But with this knowledge, the zoo team feels that Unga's problem may be more of an immune regulation or hormonal issue."

Dr. Raveendran remains in touch with the Columbus Zoo team as they work together to help Unga.

She says it's important for the sake of innovation to form these kinds of relationships.

"By keeping an open line of communication, we can talk to one another about things that might be less common and come up with new and innovative ways of doing things," Dr. Raveendran says.

Airway Management Enhancements Initiated

Multiple Efforts Underway to Improve Patient Safety

When it comes to airway management at a large medical center, it takes a multipronged approach to ensure caregivers at all levels have what they need to be successful.

Minka Schofield, MD, associate professor in The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery, has made it her mission to reduce sentinel events related to airway emergencies or difficult airways.

As chair of the ENT Quality Improvement Committee, Dr. Schofield and team identified airway safety as a focus for the group. As a result, medical center policies involving multiple disciplines, including anesthesia, acute care surgery and pulmonology, were developed.

The team's work is standardizing care of tracheostomy patients. It has also established a new protocol for triggering an airway response team, created an "Airway Alert" banner notification in the electronic record and built education via computer-based learning modules. Teams are now working to fully deploy these interventions and measure success.

Tracheostomy Postoperative Care Policy

To standardize the airway management for patients with a tracheostomy tube or total laryngectomy, a medical center-wide Tracheostomy Postoperative Care Policy has been introduced.

The policy outlines specific care standards, provides troubleshooting guidelines and contains clear discharge plans for these patients.

The policy also includes a sign protocol — a visual cue to be placed at the head of the bed of patients with a tracheostomy tube or total laryngectomy. This sign is intended to provide code blue or emergency response teams entering the room with an immediate alert to the type of airway they're dealing with.

The sign protocol portion of the policy is being piloted within The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute and will soon be expanded across the medical center.

Difficult Airway Response Team (DART)

Airway emergencies require quick intervention. A collaborative effort between anesthesia, ENT, acute care surgery, pulmonology and other emergency response team representatives has been developed to speed care to patients with an airway emergency or difficult airway.

Called Difficult Airway Response Team (DART), the collaborative operates similar to a code blue response. When an airway emergency requires swift intervention, a page is sent to the services involved in DART. This page triggers the rapid mobilization of team members who can quickly assist.

"DART was designed to reduce the delay in securing an airway and, ultimately, to reduce the risk of brain injury or death," Dr. Schofield says.

DART was fully deployed in September 2019, and work continues to ensure this intervention is operating efficiently and called upon appropriately.

"All of the interventions that have been put into place — the policy, DART, the Epic banner and education — are designed to work together to prevent care delays and raise awareness among the primary care teams and emergency responders as it pertains to the patient's airway and management," Dr. Schofield says.

Airway Alert Banner

In March 2018, an Airway Alert banner was added to the Epic electronic medical records system. The banner is initiated when a caregiver associates specific medical codes with the patient. If related codes are entered, the alert banner is triggered. All providers working within that patient's chart see the banner and are alerted to a potential airway issue.

The banner allows for direct communication with others on the care team.

"If you've worked with a patient and know they need a specific size tube or fiberoptic scope for intubation, for example, these notes can be added to the banner so others are made aware and time isn't wasted," Dr. Schofield says.

The banner also plays a key role in the policy associated with DART.

"Within the DART policy, only credentialed airway providers should trigger the response," Dr. Schofield says. "But if there is an Airway Alert banner in place for a patient, any provider can trigger a DART. The banner serves as an OK to call in the troops for help."

Needs Assessment and Training

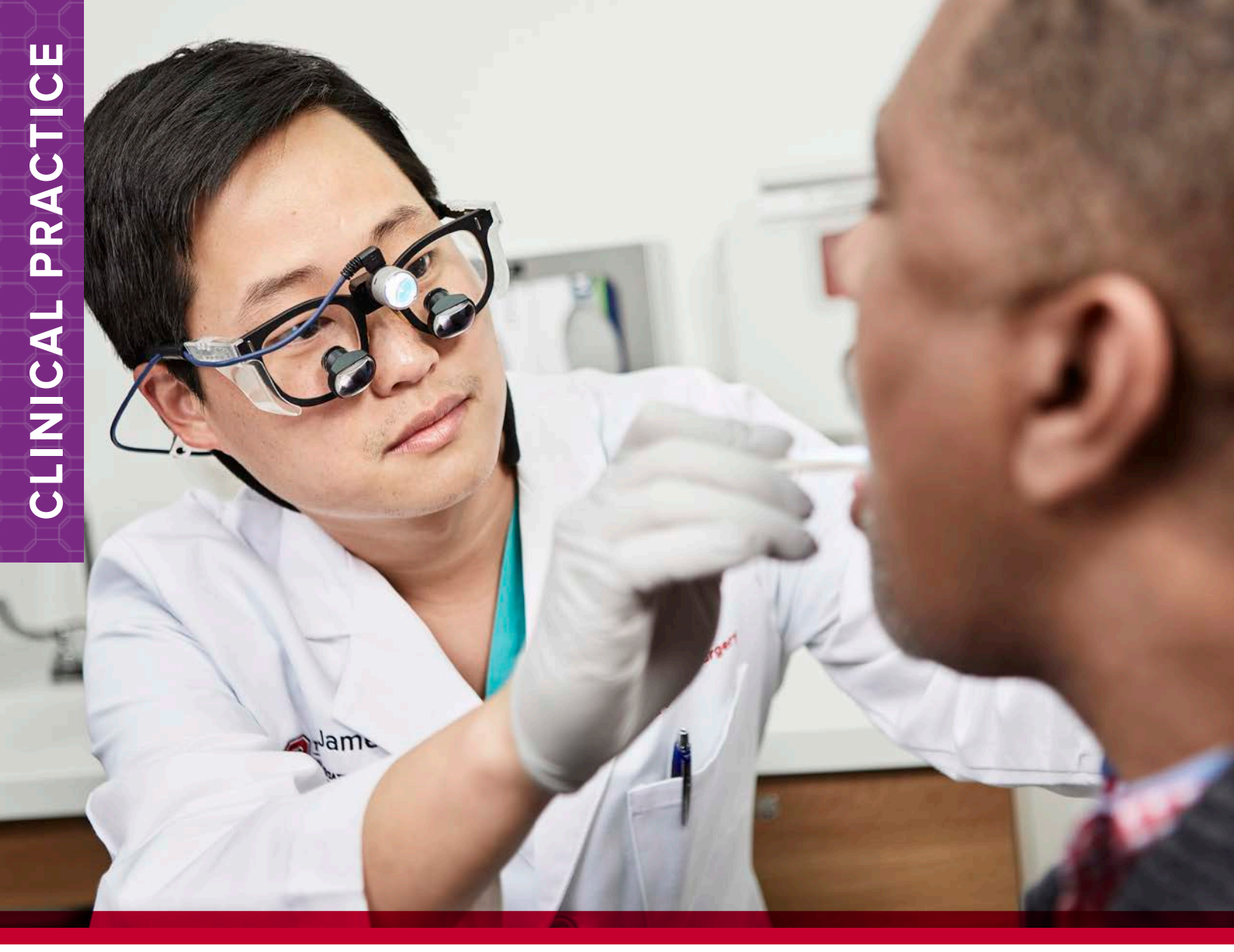
The key to long-term success of the airway interventions put in place across the Ohio State Wexner Medical Center, Dr. Schofield says, is making sure medical staff and providers have the right level of education to manage these patients.

"To understand where things stood, we distributed an educational needs assessment across the medical center," Dr. Schofield says. "The results are now being used to identify targeted areas to improve training or create specialized education."

Dr. Schofield has also developed a three-part tracheostomy computer-based learning module. The training, which will be distributed based on the needs assessment findings and work location, will reinforce the standardized protocols in place for airway management.

"All of the interventions that have been put into place — the policy, DART, the Epic banner and education — are designed to work together to prevent care delays, and raise awareness among the primary care teams and emergency responders as it pertains to the patient's airway and management," Dr. Schofield says.

Patient safety remains a paramount priority across all disciplines at Ohio State Wexner Medical Center – especially with patients experiencing airway emergencies. The multipronged approach to training and educating multidisciplinary teams ensures the necessary steps are in place to positively impact patient safety and outcomes.



Going the Extra Mile

Surgeon Travels to Hong Kong to Learn New Procedure

Cancers of the head and neck can be extremely complex to treat — especially cancers that involve the carotid artery. Completely removing these cancers could damage the artery, which serves as the main supplier of blood to the brain, neck and face.

Looking for a better way to care for patients with these types of cancers, Stephen Kang, MD, made the nearly 8,000-mile trek to Hong Kong in March 2019 to learn a carotid bypass procedure developed and perfected there.

Dr. Kang, associate professor in The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery, was joined on his journey by then-fellows Sidharth Puram, MD, PhD, and Nyall London, MD, PhD.

Why Hong Kong?

Nasopharynx cancer, which occurs close to the carotid artery, is known to be more prevalent in Hong Kong and parts of China, compared to other parts of the world, Dr. Kang says.

"It's our responsibility to bring new techniques to these patients who might have exhausted all other treatment options," Dr. Kang says. "The support we received to go to Hong Kong and learn this procedure is truly a testament of the support and vision of Dr. James Rocco, chair of the Department of Otolaryngology – Head and Neck Surgery."

"Because nasopharynx cancer is in close proximity to the carotid artery, removing the cancer near the artery is often the last obstacle in a patient's treatment plan," Dr. Kang says.

Doctors in Hong Kong developed a procedure whereby they create an arterial graft that is connected below the involved part of the carotid artery. The graft is then used to bypass the involved section of the carotid artery. Once the bypass is complete and blood supply re-routed, the surgeon then removes the bypassed portion of the carotid artery.

Dr. Kang and team observed and learned from two carotid bypass procedures while in Hong Kong. He credits colleague Ricardo Carrau, MD, Lynne Shepard Jones Chair in Head and Neck Oncology and co-director of the Comprehensive Skull Base Surgery Program at The Ohio State University, for connecting him with the Hong Kong team.

What's Next?

Though a carotid bypass case would be performed only on rare occasions, Dr. Kang says the team at Ohio State Wexner Medical Center stands ready.

"Here at Ohio State, we have doctors skilled in all the technical aspects of this procedure," Dr. Kang says. "We're experienced with transplanting and reconnecting arteries and performing the microvascular surgical techniques required."

Due to the possibility of clotting, however, the stakes are much higher with a carotid bypass procedure. Dr. Kang says that the carotid bypass procedure he learned would be a consideration for patients who can't undergo chemotherapy or radiation, or whose cancer didn't respond to those treatments.

"Because the carotid bypass procedure carries a risk of complications, it's important to ensure patients are extremely well suited for this surgery as a last effort to save their life," Dr. Kang says.

Since his visit to Hong Kong, Dr. Kang has formed a "bypass team"—a group of colleagues charged with determining if a patient is a good candidate for the carotid bypass.

"Of the patients who may need this procedure, most have skull base tumors," Dr. Kang says. "At Ohio State, we have the fortune of having one of the leading skull base surgery programs. With its tremendous reputation comes a great deal of volume."

Dr. Kang says that many patients who come to Ohio State Wexner Medical Center skull base program have advanced disease or are seeking second opinions.

"It's our responsibility to bring new techniques to these patients who might have exhausted all other treatment options," Dr. Kang says. "The support we received to go to Hong Kong and learn this procedure is truly a testament of the support and vision of Dr. James Rocco, chair of the Department of Otolaryngology – Head and Neck Surgery."

EDUCATION

By the Numbers

Residents: **21**

76% male; **24%** female

Fellows: **7**

Specialty fellowships: **6**

Ohio State Adds 5th Resident to Otolaryngology Residency Program

More than 80 years after The Ohio State University established its renowned Otolaryngology Residency Program, the Ohio State Department of Otolaryngology – Head and Neck Surgery announced it will now accept five residents per year.

This increase from four to five residents, which went into effect with the National Residency Matching Program's 2019 "Match Day," makes the department's five-year, accredited residency program one of the largest in the nation.

A Comprehensive, Competitive Program

Ohio State's Otolaryngology residency, which started in the 1930s as a two-year training program, has grown several times throughout its history, including a 2007 increase from three to four residents per class.

"Our most recent expansion felt like a natural next step," says Brad deSilva, MD, director of the Otolaryngology Residency Program and the department's vice chair of Education. "The department continues to see growth in patient volume, which gives residents an opportunity to learn and be involved in common and complex cases. And our clinical faculty have diverse backgrounds and expertise."

Dr. deSilva notes that adding an extra position provides greater flexibility for all the residents, because they're not pulled in to help with clinical care during research blocks or other reserved time. They also have more time to travel to conferences, take courses and serve on national committees — all of which provide learning opportunities.

Continued on page 36

Continued from page 35

Pushing the Field Forward

By accepting an extra resident, Ohio State is also helping to meet a growing demand for comprehensive, postgraduate otolaryngology training.

"Every year, we receive hundreds of applications to our residency program," says James Rocco, MD, PhD, department chair and Mary E. and John W. Alford Research Chair in Head and Neck Cancer. "This is due, in large part, to our unique and very strong training program. Going from four to five residents a year allows us to increase the impact that Ohio State has on the field of otolaryngology."

Dr. deSilva agrees, noting that the department received 459 applications to fill its five available spots for the incoming 2020 class.

"Our program is attractive for several reasons," he says. "Our large, diverse patient population exposes residents to the full range of otolaryngology disorders and helps them hone their clinical and surgical skills. The size of our faculty is also an attribute, because residents can learn numerous techniques from physicians who are experts in their subspecialty. And because our research program is robust, applicants can feel confident they'll have ample research training and the resources necessary to complete their own projects."

Dr. deSilva says that, in his eight years as residency program director, 100% of graduates who chose to pursue additional training received fellowships in the fields of their choice.

"Our resident training program is a source of pride for the department, and it'll only get stronger as we grow from 20 to 25 total residents over the next five years," he says. "It's a privilege to help train some of the best and brightest minds, and it's exciting to see how their energy and enthusiasm continue to shape the field of otolaryngology."

Department of Otolaryngology Expands Visiting Professor Program

The once-modest visiting professor program managed by the Department of Otolaryngology – Head and Neck Surgery received a boost in December 2017 when James Rocco, MD, PhD, was named the new department chair.

Recognizing the benefits of bringing renowned and diverse faculty to The Ohio State University from other institutions, Dr. Rocco significantly increased the scale of the program. Now, with up to eight professors invited to visit the Ohio State campus each year, the department's faculty, fellows and residents have opportunities to learn from other experts and strengthen their professional networks.

Supporting Peers and Strengthening Partnerships

Although many academic medical centers occasionally host visiting professors, Ohio State's otolaryngology department has intentionally grown its program. This gives faculty members abundant exposure to many of the nation's top scientists and clinical leaders.

Guest faculty usually attend dinner with a small group of Ohio State clinicians or researchers who have a special interest in the visitor's experience or expertise. Then, guests spend the following day on campus giving lectures, meeting with residents and fellows, and circulating around the department.

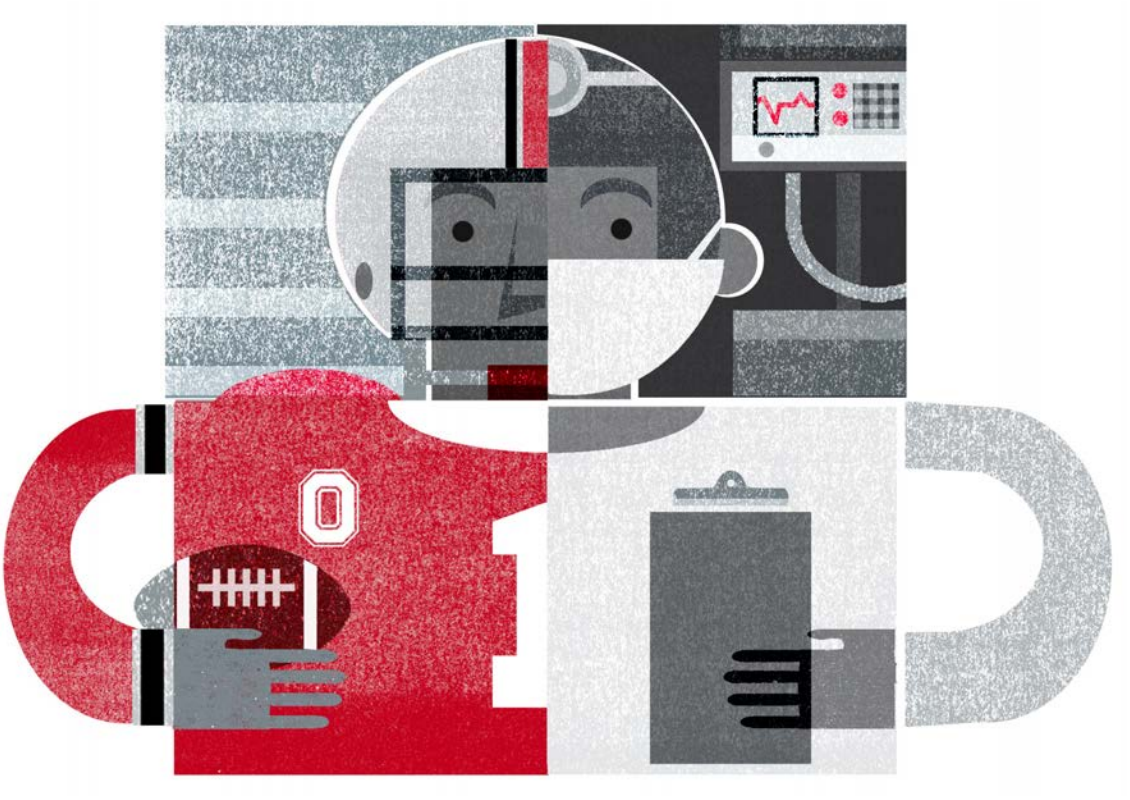
"The program offers our staff the chance to create new relationships and meet potential new mentors," Dr. Rocco says. "Many of my colleagues have noted that since we ramped up the program, they recognize more people at professional meetings and conferences and enjoy engaging with them. These integrations within the professional community offer boundless opportunities, including research collaborations and committee or board appointments."

Raising Awareness

Dr. Rocco says that it's also valuable for guest faculty to gain a better understanding of the clinical and research activities happening at Ohio State.

"Our department is very large and quite successful by any measure, but not everyone is familiar with our capabilities," he says. "When visiting professors learn more about our strong subspecialty programs and our robust research initiatives, they may feel compelled to encourage future residents or fellows to apply to Ohio State, or recommend bright young faculty for open positions in our department."

The Department of Otolaryngology – Head and Neck Surgery welcomes inquiries from academic physicians and scientists interested in sharing their expertise through our visiting professor program. If you're interested in participating, please contact Audrey Agner at Audrey.Agner@osumc.edu.



Unique Internship Drives Ohio State Student-Athletes to Careers in Medicine

A partnership between the Department of Otolaryngology – Head and Neck Surgery at The Ohio State University Wexner Medical Center and the Eugene D. Smith Leadership Institute in The Ohio State University Department of Athletics is helping some of the country's top collegiate athletes pursue careers in clinical care and research.

Through a program called Bucks Go Pro 2.0, Ohio State student-athletes apply for paid summer internships at one of more than 50 corporate partners throughout greater Columbus. In 2020, the Department of Otolaryngology's division of Pediatric Otolaryngology — housed at Nationwide Children's Hospital — will host a group of interns for the third straight year.

A Training Experience Designed Exclusively for Busy Athletes

Tendy Chiang, MD, associate program director of the Pediatric Otolaryngology fellowship at Nationwide Children's Hospital, says Ohio State and Nationwide have a long track record of training and mentorship. He and division chief Charles Elmaraghy, MD, who are both faculty members at The Ohio State University College of Medicine, felt drawn to the Bucks Go Pro 2.0 program.

"We decided to get involved in the program when we learned there is a large population of Ohio State student-athletes who are interested in medical careers," Dr. Chiang says. "We realized we could help support their goals by providing an intense clinical and research experience in an academic medical setting that can be easily organized around their busy athletic schedules."

During the two-month internships, the students spend 20 hours per week shadowing otolaryngologists in the clinic and operating room and participating in basic clinical research projects. Once the formal internship ends, the students may continue meeting regularly with Dr. Chiang and other faculty for help meeting their career goals.

"Two of our 2019 interns spent their summer synthesizing a clinical question, participating in data collection and analysis, and preparing abstracts," Dr. Chiang says. "Their abstracts were accepted for presentation at national ENT meetings taking place later that year. We continued working with them throughout the fall to prepare for and refine their oral presentations."

The partnership is also spurring other networking opportunities. Dozens of students at The Ohio State College of Medicine are former college athletes who understand the challenges of balancing academic and athletic schedules. Many have expressed interest in mentoring undergraduate athletes who want to follow in their footsteps.

Committed Athletes Make Committed Professionals

Maddy McIntyre, director of the Eugene D. Smith Leadership Institute, says the Bucks Go Pro 2.0 interns consistently receive excellent feedback from their supervisors across all types of industries.

"Our corporate partners have reported these interns have outstanding work ethic, discipline, commitment, respect and humility," she says.

Dr. Chiang agrees, noting there's something special about an individual who's been able to reach one of the most elite levels of their chosen sport.

"There are many common ingredients in becoming a successful athlete and a successful clinician or scientist," he says. "We help them harness their work ethic and passion and apply it to something slightly different, whether that's getting into medical or nursing school, or pursuing additional training opportunities at other hospitals or research labs."

To learn how the department structures its two-month internship, contact Dr. Chiang at Tendy.Chiang@nationwidechildrens.org. If you're interested in providing an internship experience for Ohio State student-athletes, contact Maddy McIntyre at mcintyre.153@osu.edu.

Tendy Chiang, MD

Charles Elmaraghy, MD

Ohio State Brings Together Clinicians, Community Members to Celebrate World Voice Day

On April 16, 2019, The Ohio State University Wexner Medical Center observed World Voice Day by hosting an inaugural event to honor the marvels of the human voice and raise awareness of vocal health.

Attendees at this free, half-day event included laryngologists, speech-language pathologists (SLPs), vocal instructors and students, and Ohio State Wexner Medical Center patients. Through a series of engaging presentations, they discussed the importance of the voice and learned how to preserve it.

Honoring One of Our Most Important Abilities

World Voice Day is an annual day of observance established in 1999. Every year on April 16, individuals and organizations around the globe honor the voice by encouraging people to take care of their vocal cords.

"Over the years, we've offered numerous community outreach activities to educate people about the voice, but they were usually targeted to single groups of people like our local opera singers or students at music schools," says otolaryngologist Brad deSilva, MD, director of Ohio State's Division of Laryngology. "For World Voice Day in 2019 we decided to take a different approach. We brought together people from the Greater Columbus area interested in professional or personal perspectives related to voice issues and conditions and encouraged them to learn from and network with each other."

Continued on page 41

Welcome New Fellows

Allergy and Immunology

Monica Kraft, MD
Hometown: Brookfield, Connecticut
Undergraduate: University of Notre Dame
Medical School: University of Connecticut School of Medicine
Residency: Nationwide Children's Hospital/The Ohio State University Wexner Medical Center

Dylan Timberlake, MD
Hometown: Brecksville, Ohio
Undergraduate: University of Akron
Medical School: Northeast Ohio Medical University
Residency: Akron Children's Hospital

Head and Neck Oncologic Surgery

Akina Tamaki, MD
Hometown: Amagasaki, Japan
Undergraduate: Johns Hopkins University
Medical School: University of Maryland School of Medicine
Residency: Case Western Reserve University/University Hospitals Cleveland Medical Center

International Pediatric Otolaryngology

Gustavo Rangel, MD
Hometown: Criciuma, SC, Brazil
Undergraduate: Federal University of Rio de Janeiro, Brazil
Medical School: Federal University of Rio de Janeiro, Brazil
Residency: State University of Rio de Janeiro, Brazil

Pediatric Otolaryngology

Erin Hamersley, DO
Hometown: Key West, Florida
Undergraduate: Bridgewater College
Medical School: Edward Via Virginia College of Osteopathic Medicine
Residency: Naval Medical Center Portsmouth

Skull Base and Ablative Head and Neck Surgery

Abdulaziz Alrasheed, MD
Hometown: Riyadh, Saudi Arabia
Undergraduate: King Saud University
Medical School: McGill University
Residency: McGill University
Fellowship: University of North Carolina – Chapel Hill

Otology, Neurotology and Cranial Base Surgery

Varun Varadarajan, MD
Hometown: Manipal, Karnataka, India
Undergraduate: Washington University, St. Louis
Medical School: Medical College of Wisconsin
Residency: University of Florida College of Medicine

Welcome New Residents

Maxwell Bergman, MD
Hometown: Houston, Ohio
Undergraduate: The Ohio State University
Masters: Georgetown University
Medical School: Georgetown University School of Medicine

Jeremy Godsell, MD
Hometown: Kitimat, Canada
Undergraduate: University of North Carolina Chapel Hill, Gillings School of Public Health
Medical School: Medical College of Georgia at Augusta University

Hannah Kuhar, MD
Hometown: New York, New York
Undergraduate: Dartmouth College
Medical School: Rush Medical College

Joseph Lee, MD
Hometown: Valley Stream, New York
Undergraduate: University of Notre Dame
Masters: Relay Graduate School of Education
Medical School: University of Rochester School of Medicine and Dentistry

Sarah Nyirjesy, MD
Hometown: Philadelphia, Pennsylvania
Undergraduate: Amherst College
Medical School: Drexel University College of Medicine

World Voice Day

Continued from page 40

Presentations included:

- A keynote speech on the topic of voice science and health by Scott McCoy, PhD, director of the Swank Voice Laboratory and the interdisciplinary program in singing health at The Ohio State University School of Music.
- A panel discussion on challenging voice therapy cases, led by local SLPs.
- A panel of patients who discussed their journeys to recovery as they overcome voice loss.
- A presentation on care of the transgender voice. This timely discussion highlighted the need to support the growing population of transgender patients whose voices are an important part of their gender identities.

Building on the Success of the First Event

Encouraged by positive feedback from those who attended the 2019 event, Dr. deSilva and his colleagues are finalizing plans for their second annual World Voice Day event in 2020.

"Our next event will include discussions on approaches to voice care and voice therapy in the pediatric population," Dr. deSilva says. "We're also pleased to announce that Dr. Gaelyn Garrett, a well-known voice disorders expert, is the keynote speaker. Dr. Garrett is currently the senior executive medical director of the Vanderbilt Voice Center."

To learn more about The Ohio State University's 2020 World Voice Day event, contact Dr. deSilva at **Brad.DeSilva@osumc.edu**.

LEADERSHIP AND RECOGNITION

DISTINGUISHED ACHIEVEMENTS

- The World Allergy Organization (WAO) Board of Directors and Centers of Excellence Committee chose The Ohio State University Wexner Medical Center and Nationwide Children's Hospital as a WAO Center for Excellence for the 2019-2022 term. **The Ohio State Allergy and Immunology program** was selected based on the team's national reputation and strong clinical, research and educational focus.

- The following physicians from the Department of Otolaryngology – Head and Neck Surgery were named Castle Connolly Top Doctors for 2019:
Oliver Adunka, MD; Amit Agrawal, MD; Ricardo Carrau, MD; Brad deSilva, MD; Edward Dodson, MD; Garth Essig, MD; L. Arick Forrest, MD; Charity Fox, MD; Princess Ogbogu, MD; Matthew Old, MD; Bradley Otto, MD; Enver Ozer, MD; James Rocco, MD, PhD

- The following physicians from the Department of Otolaryngology – Head and Neck Surgery were named among the top 10% of providers nationally for patient satisfaction in 2019:
Amit Agrawal, MD; Brad deSilva, MD; Edward Dodson, MD; L. Arick Forrest, MD; Stephen Kang, MD; Stephen Nogan, MD; Princess Ogbogu, MD; Matthew Old, MD; Bradley Otto, MD; Enver Ozer, MD; Rekha Raveendran, MD; Kara Wada, MD

- **Terrin Tamati, PhD**, was selected as one of 10 outstanding young researchers for the Ohio State President's Postdoctoral Scholars program. Dr. Tamati, who works with **Aaron Moberly, MD**, and **Derek Houston, PhD**, focuses her research on talker variability effects in adult cochlear implant users.

- **Aaron Moberly, MD**, received a first place award in the Life Science category of the Wisconsin Governor's Business Competition June 4 in Milwaukee. Dr. Moberly was awarded for his "Otologic Technologies," which focused on commercialization efforts for automated image analysis software to improve diagnosis of ear diseases.

Appointments

Otolaryngology Faculty Elected to Chief of Staff Positions

Two physicians from the Department of Otolaryngology – Head and Neck Surgery have been elected to chief of staff positions at The Ohio State University Wexner Medical Center.

Amit Agrawal, MD, a head and neck surgeon, was elected chief of staff for The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute.

Minka Schofield, MD, a general otolaryngologist, was elected chief of staff for The Ohio State University Wexner Medical Center. She'll represent the interests of physicians and advanced practice providers at the medical center's University Hospital, Harding Hospital and East Hospital.

Chief of staff positions at Ohio State Wexner Medical Center and Ohio State Comprehensive Cancer Center -- James Cancer Hospital and Solove Research Institute are peer-elected. Drs. Agrawal and Schofield will each serve two-year terms.

"Clinical quality, safety and patient satisfaction are cornerstones of success in our medical center, and what's best for patient care is the overarching lens of how I view everything I do in my role," Dr. Agrawal says. "Strongly linked to those is the satisfaction of our medical providers, and it's critical that the interests of our medical staff are well-represented in that regard."

Dr. Agrawal's primary goals during his term as chief of staff at OSUCCC -- James are to foster and promote efforts that enhance provider satisfaction — even those small issues which can have dramatic impact on medical staff well-being — while furthering what's best for patients.

As part of her chief of staff platform, Dr. Schofield focuses on improving provider satisfaction through initiatives that decrease burnout, enhance wellness and address day-to-day challenges for medical staff.

"I want to be in the room where key decisions are being made that affect medical staff," Dr. Schofield says. "It's important to me that our interests are represented and heard."

Dr. Schofield's efforts on behalf of providers are guided by data from institutional surveys, direct outreach from the medical staff and information she gathers from her membership on the Faculty Experience Group at The Ohio State University College of Medicine.

Dr. Agrawal is an associate professor in the Department of Otolaryngology – Head and Neck Surgery. He earned his medical degree from Northwestern University. He completed his residency at University of Illinois Chicago and his otolaryngology fellowship at Ohio State Wexner Medical Center. Dr. Agrawal is a member of the Molecular Carcinogenesis and Chemoprevention Research Program.

Dr. Schofield is an associate professor in the Department of Otolaryngology – Head and Neck Surgery. She earned her medical degree at Ohio State University and completed residency training at Ohio State Wexner Medical Center. Dr. Schofield has been part of the Department of Otolaryngology – Head and Neck Surgery faculty since 2008.

Ricardo Carrau Serves as NASBS President During Milestone Year

In February 2019, 30 years after joining the North American Skull Base Society (NASBS), Ricardo L. Carrau, MD, was named the society's next president.

Dr. Carrau is the Lynne Shepard Jones Chair in Head and Neck Oncology and co-director of the comprehensive skull base surgery program at The Ohio State University Wexner Medical Center, as well as a world-renowned pioneer in endoscopic skull base surgery. His appointment as NASBS president is just one of many achievements in his distinguished career — and one that he finds especially fulfilling.

"I was a founding member of the society in 1989 and, today, it's still the only professional medical organization in the U.S. devoted solely to skull base surgery," Dr. Carrau says. "Not only have I remained an active member, my term as president coincides with the society's 30th anniversary. I see this appointment as both an honor and an obligation."

The NASBS comprises medical and surgical specialists who help manage skull base disorders. These include otolaryngologists, neurosurgeons, maxillofacial surgeons, medical oncologists, endocrinologists and neuroradiologists.

"We bring together all these experts who share a common interest and give them a forum to discuss challenges and advances in the field," Dr. Carrau says. "The society also serves as an incubator for new ideas and innovations, as one of our priorities is to pursue and promote scientific research."

Dr. Carrau has spent most of his yearlong-term planning the NASBS annual skull base surgery summer workshop for residents and fellows, and the society's annual member meeting. At the conclusion of the 2020 meeting Feb. 7 to 9 in San Antonio, Dr. Carrau will pass the gavel to the incoming president. He'll then serve as past president on the NASBS board of directors until 2022.

"We bring together all these experts who share a common interest and give them a forum to discuss challenges and advances in the field," Dr. Carrau says. "The society also serves as an incubator for new ideas and innovations, as one of our priorities is to pursue and promote scientific research."

Brandon Kim Named to Board of Trustees for Opera Columbus

Brandon Kim, MD, assistant professor in The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery, has been chosen for a three-year term on the Board of Trustees for Opera Columbus.

A fellowship-trained laryngologist and supporter of the arts, Dr. Kim's clinical and research interests include voice, airway and swallowing disorders. Among Dr. Kim's patients are professional singers for whom he's provided medical and supportive treatments, as well as vocal cord surgery.

"I love working with singers and attending their performances," Dr. Kim says. "As a board member, I get the chance to do even more in support of Opera Columbus and the arts in our city."

Dr. Kim is particularly excited to assist Opera Columbus on education initiatives, which include utilizing the arts to foster discussion about civil rights, inclusivity, and general outreach and exposure to the arts. He also hopes to create more connections between the arts and medical communities — emphasizing that both stand to benefit.

"There are numerous arts-in-medicine studies that suggest the emotional and humanistic enrichment offered by the arts are good for health," Dr. Kim says.

And on the flipside, he says, there's a role for medicine in the arts.

"People don't often think of an opera singer as a high-performance athlete," Dr. Kim says. "But, like other athletes, they have to train, eat right, sleep well and exercise the muscles that allow them to repeatedly perform for hours on end."

Dr. Kim thinks it's important for physicians and surgeons to approach their care of artists as they would athletes — with an understanding that they can face injuries and setbacks and should be supported in a way that brings them back to peak performance.

"I'm honored to serve as a board member for Opera Columbus," Dr. Kim says. "To work with this diverse group of individuals who share a passion for opera and want to improve, help and sustain this important cultural organization in Columbus is gratifying and tremendously rewarding."

"People don't often think of an opera singer as a high-performance athlete," Dr. Kim says. "But, like other athletes, they have to train, eat right, sleep well and exercise the muscles that allow them to repeatedly perform for hours on end."

Rishabh Sethia Selected as AAO-HNS Education Committee Member

Rishabh Sethia, MD, a second-year otolaryngology resident, will represent The Ohio State University as a member of the Simulation Education Committee of the American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS).

The Simulation Education Committee, one of nine volunteer-led education committees within the AAO-HNS, helps create and promote simulation learning opportunities to the academy's nearly 12,000 members. This includes the many simulation scenarios available in the Simulation Showcase — a special area at the academy's annual meeting that highlights new training technology.

"Our simulated opportunities are designed to help otolaryngologists prepare for common situations they may face during their careers, with a focus on emergent scenarios," Dr. Sethia says. "An example is airway foreign body removal, which requires quick, well-coordinated action. Participating in this type of simulated experience helps physicians learn how to respond to or manage certain situations before facing them in real life."

As one of the few residents appointed to the committee for the next one-year term, which ends in September 2020, Dr. Sethia will also have an opportunity to represent other otolaryngologists-in-training.

"Most of the other committee members are academic faculty who have many years of experience," he says. "I can provide a trainee perspective on the value and success of our previous education initiatives and recommend ideas for new simulated trainings."

Dr. Sethia says he's looking forward to the opportunity to network with other specialists in his chosen field, and to expand his horizons beyond clinical responsibilities.

"I'm interested in an academic career, and this experience allows me to build relationships and gain leadership experience," he says. "Both are critical to becoming an effective academic physician in otolaryngology."

"Our simulated opportunities are designed to help otolaryngologists prepare for common situations they may face during their careers, with a focus on emergent scenarios," Dr. Sethia says.

Otolaryngologist Minka Schofield Represents Ohio State at National Level

Minka Schofield, MD, associate professor in the Department of Otolaryngology – Head and Neck Surgery, is representing The Ohio State University Wexner Medical Center on the national level through involvement with the American Academy of Otolaryngology – Head and Neck Surgery (AAO-HNS).

In 2019, Dr. Schofield was appointed to the AAO-HNS search task force, a select group charged with choosing the AAO-HNS's next annual meeting program coordinator.

Because the annual meeting program coordinator serves a three-year term, the task force's selection has a major impact not only on future meetings, but also on the future educational needs of otolaryngologists.

Dr. Schofield was also elected in 2019 as a member-at-large for the Women in Otolaryngology (WIO) section of AAO-HNS. Over a two-year term, Dr. Schofield will serve as a liaison between the WIO governing council and WIO members and other organizations.

"For anyone in academics — or anyone seeking to make an impact — involvement in national organizations is key," Dr. Schofield says. "My own experience has catapulted my leadership presence and it provides the opportunity for me to make a greater impact on the specialty."

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Awards

Laura Matrka Achieves Active Fellowship in Triological Society

Otolaryngologist Dr. Laura Matrka's ongoing commitment to academia and research has been validated by the prestigious Triological Society. She was inducted as an active fellow in the 125-year-old society after her clinical research thesis was reviewed and accepted by a panel of her peers.

Dr. Matrka is an associate professor in the Department of Otolaryngology – Head and Neck Surgery at The Ohio State University Wexner Medical Center. She provides subspecialty care to patients with voice and airway disorders.

Dr. Matrka's thesis described her efforts to create and evaluate an airway safety algorithm for surgical patients at Ohio State. She led a quality initiative to determine whether it's safe to perform jet ventilation on patients if the lead surgeon has jet ventilation training but some operating room (OR) staff don't.

"We followed more than 70 surgeries that utilized jet ventilation," Dr. Matrka says. "We gave everyone involved in those procedures a score related to their communication skills in the OR, and their experience with jet ventilation. We also tracked those patients' outcomes and complication rates. We found that as long as the OR team used the safety protocol and airway algorithm designed for this scenario, performing the same steps the same way every time, it didn't matter whether some team members lacked jet ventilation training."

Not only was Dr. Matrka's thesis accepted by the Triological Society, her scientific manuscript on the same topic was accepted for publication as a supplement in *The Laryngoscope*, one of the society's two scientific journals.

"It's gratifying to know our patient safety initiative played a role in my acceptance into the Triological Society, because the topic is so close to my heart," Dr. Matrka says. "It's an honor to be inducted alongside so many physicians I know and respect, and to have my research results reach a broader audience."

Research on Sinus Implant Materials Takes 1st Place at Triological Society Competition

A team led by Charles Elmaraghy, MD, took first place at the Triological Society poster competition held at the May 2019 Combined Otolaryngology Spring Meeting (COSM) in Austin, Texas.

Dr. Elmaraghy, associate professor in The Ohio State University Wexner Medical Center Department of Otolaryngology – Head and Neck Surgery and chief of the Division of Pediatric Otolaryngology, served as the research group's advisor.

The focus of the winning poster was the team's research on safer sinus implant materials. These materials — used in endoscopic sinus surgery to support postoperative healing — are also known for their susceptibility to bacterial biofilm formation. When bacterial biofilm forms, patients are at risk for negative outcomes.

The team wanted to determine if pre-treating sinus implant materials could limit the formation of bacterial biofilm. They treated several types of sinus implant materials — polyurethane foam, chitosan lactate foam and polyvinyl alcohol sponge — with antibodies directed against a particular DNA-binding protein essential in the formation of bacterial biofilm. The team found that treatment of all three implant material types resulted in reduced bacterial biofilm formation.

"Our findings suggest that there may be value in developing a pre-treated sinus implant material," Dr. Elmaraghy says. "Pediatric sinusitis is a complex process and use of an anti-biofilm implant may be on the horizon."

In addition to winning the poster competition, the team's research was accepted for publication in the journal *Laryngoscope*.

Co-authors of the winning poster include: Lauren Bakaletz, PhD; Rachel Chon, RN; Steven Goodman, PhD; Lauren Martyn; Laura Novotny; and Rishabh Sethia, MD (poster presenter).

Estate Gift Will Fund Innovative Head and Neck Cancer Research

The Department of Otolaryngology – Head and Neck Surgery at The Ohio State University Wexner Medical Center has received a generous estate gift from Art Shepard, a longtime donor and devoted Buckeye.

Shepard, who passed away in 2018 at age 107, has helped fund head and neck cancer research at Ohio State for nearly 20 years. His final gift will continue to support young scientists with bold ideas who may not have the track record to compete for grants from the National Institutes of Health and other funding agencies.

> *"Art Shepard was more than just a philanthropist, he was also a friend of our department and a champion of new ideas."*
> *– James Rocco, MD, PhD*

A Lasting Tribute

Although Shepard's estate gift will be allocated among several programs and services at The Ohio State University, part of it will benefit The Lynne Shepard Jones Endowment Fund for Cancer Research. He established this fund in 2001 in memory of his daughter, who passed away from cancer, and continued supporting it until his own passing.

"Philanthropy plays a critical role in funding some of our department's scientific activities," says James Rocco, MD, PhD, department chair and Mary E. and John W. Alford Research Chair in Head and Neck Cancer. "There's limited government funding to support initial basic science and translational initiatives, especially for early stage investigators whose creativity often serves as the foundation for research efforts that directly impact patient care."

Generosity Fuels Game-Changing Research

Over the years, Shepard helped fund numerous projects that opened new lines of scientific inquiry into predicting the success of head and neck cancer treatment to standard therapies. He also provided funding for the Lynne Shepard Jones Endowed Professorship in Head and Neck Oncology. This position is currently held by Ricardo Carrau, MD, an internationally renowned otolaryngologist who helped pioneer endoscopic skull base surgery techniques that have transformed treatment of skull base tumors.

"Art Shepard was more than just a philanthropist, he was also a friend of our department and a champion of new ideas," Dr. Rocco says. "His estate gift will have a meaningful impact on patient care, because it will help support innovative research proposals that may not be ready for federal funding but have the potential to accelerate the pace of scientific discovery."

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– James Rocco, MD, PhD

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