CONNECTIONS

MARCH 2019

Global Leader in Promoting Healthier Connections with the World

Inside Head and Neck Surgery & Communication Sciences
As we prepare to admit our newest class of residents in the spring, and recruit new faculty for our growing clinical and research teams, we reflect on our accomplishments of the past year, highlight ongoing and new efforts, and address staying true to our mission. The changing healthcare landscape requires that we continue to make a deliberate commitment to bringing out the best in our clinical and research teams. Our emphasis on shared leadership training and mutual accountability provides a solid foundation for self-reflection and courage within our learning community. This promotes a culture that is inclusive of diverse ideas, experiences and backgrounds which, in turn enriches the creativity, strength and impact of our division. This past summer we were pleased to welcome 5 new residents and 2 new faculty members who are already contributing in significant ways to this mission.

We are also engaging in a strategic planning process guided by the aspiration to be “where today’s patients and tomorrow’s leaders come for head and neck surgery and communication sciences discovery and care.” These efforts are already yielding programmatic synergies within the division and across the health system, including an enhanced and comprehensive pediatric hearing health program that includes cochlear implantation; greater multi-disciplinary coordination of head and neck and endocrine tumor care in the Duke Cancer Institute; and enhanced coordination of skull base tumor care. By leveraging the talent and infrastructure within a world class university and the robust spirit of collaboration at Duke, these programs hold great promise for sustained impact across populations and time. We look forward to sharing these developments with you in this and future publications.

The goal of our inter-professional partnerships is to exceed the expectations...
of our patients while also challenging current standards of care to improve patient outcomes. Indeed, we all learn as we push the envelope of human ingenuity, continuously advancing knowledge and improving our culture of inquiry and service. We invite you to enjoy this latest snapshot of our progress, and we hope that you will choose to participate with us on this journey—as a patient, referring physician, or learner—or through your financial contributions to research and education funds that fuel our work.

Sincerely,
Howard W. Francis, MD, MBA, FACS

<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Duke Hearing Center</td>
<td>4</td>
</tr>
<tr>
<td>Duke Voice Care Center</td>
<td>10</td>
</tr>
<tr>
<td>Duke Cancer Institute Head and Neck Oncology</td>
<td>14</td>
</tr>
<tr>
<td>Rhinology and Endoscopic Skull Base Surgery Program</td>
<td>16</td>
</tr>
<tr>
<td>Advanced Practice Providers</td>
<td>18</td>
</tr>
<tr>
<td>Pediatric Otolaryngology</td>
<td>19</td>
</tr>
<tr>
<td>Speech-Language Pathology</td>
<td>20</td>
</tr>
<tr>
<td>Allergy Immunotherapy</td>
<td>22</td>
</tr>
<tr>
<td>Nurses, Coordinators, and Managers</td>
<td>24</td>
</tr>
<tr>
<td>In Memoriam of Daphne Logue</td>
<td>25</td>
</tr>
<tr>
<td>Friends of HNSCS</td>
<td>26</td>
</tr>
<tr>
<td>HNSCS Education</td>
<td>28</td>
</tr>
<tr>
<td>Durham VA Center</td>
<td>31</td>
</tr>
<tr>
<td>Community Outreach</td>
<td>32</td>
</tr>
<tr>
<td>Publications</td>
<td>34</td>
</tr>
</tbody>
</table>

OUR MISSION

To Be a Global Leader in Promoting Healthier Connections with the World through:

Compassionate care for our patients, their loved ones, and each other
Advancing and sharing knowledge in the field
Promoting virtuous professional development, collaboration, and leadership

surgery.duke.edu/HNSCS  @DukeHealth  @Duke_Oto
Groundbreaking Pediatric Hearing Initiative to Provide a Continuum of Services

Children who are deaf or have significant hearing loss need specialized services, but in North Carolina, as in much of the U.S., most don’t have access to these resources locally. Children who receive proper care—in the form of hearing aids or a cochlear implant (CI) and subsequent aural rehabilitation services, for example—are the ones who live near a major hearing center or whose families have the means to travel to and from one.

A major goal of the Duke Hearing Center for Children and Families is to provide comprehensive, patient- and family-centered hearing healthcare regardless of where the child and family live. Under the direction of Howard Francis, MD, MBA, Chief of the Division of Head and Neck Surgery & Communication Sciences, the team has taken a “deep dive” into issues that impact care, so that we can provide the best possible services for our patients.

As part of this examination of program structure and services, Francis reached out to Joni Alberg, PhD, former director of the North Carolina nonprofit BEGINNINGS for Parents of Children who are Deaf or Hard of Hearing, for help in designing family-centered services.

Beginning in August 2017, Alberg set out to explore this issue with the Duke team. She aimed to answer two questions: What factors prevent successful outcomes for children who receive cochlear implants in North Carolina? And what can Duke do to mitigate those factors?

Alberg was tasked by Francis to collaborate with the Duke team and stakeholders to develop a strategic plan for building a pediatric cochlear implant program at Duke. Her findings have revealed a significant opportunity for Duke to offer a comprehensive network of services and support for deaf and hearing-impaired children across the state.

REMOVING BARRIERS TO CONTINUED CARE

For children with hearing loss, early intervention is critical. Problems with hearing may affect a child’s speech and language skills, social development, and educational performance. In accordance with North Carolina law, all newborns in the state are screened for hearing loss—that’s hundreds of thousands of children evaluated since the law was enacted in 2000.

Of the approximately 120,000 children born in the state every year, one per 1,000 will be identified with hearing loss. Of this group of children, about 27 percent (about 97 children) may be eligible for a cochlear implant. Although many appropriate candidates receive cochlear implants, others who could benefit from this technology do not. Socioeconomics and geography are often at play, as poor children living far from otology services have less access to care than their wealthier urban and suburban counterparts.

Alberg’s approach began with looking at the different people who interact with a child who has hearing loss, including Duke audiologists, speech pathologists, and ear surgeons. She mapped out the child’s journey, from diagnosis to rehabilitation after implant surgery. Additionally, she conducted focus groups and individual interviews with early intervention teachers, LSL therapists, BEGINNINGS parent educators, other providers, and parents from across North Carolina to identify potential barriers to services.

Alberg uncovered myriad obstacles to care. A family living far away from a CI center may make the initial trip for a CI evaluation or surgery, for example, but can’t go...
back for continued treatment. Time and travel are significant factors, particularly for those living more than 50 miles from the CI center. The key, Alberg found, is to create an environment whereby a child living anywhere in NC can be successful over time. That means not merely starting a program at Duke but also partnering with providers in communities across the state.

IDENTIFYING PARTNERS, BUILDING CAPACITY

The mission of the Duke Hearing Center for Children and Families is to increase positive and successful outcomes for children who are deaf or have significant hearing loss and their families. "We’re not just creating a cochlear implant program," says Daniel King, Clinical Director of Audiology. "We don’t want this to be an isolated program, but a continuum of services."

The scope of the program is large, and its goals are ambitious. In a typical medical model, a patient is treated at a medical center and comes back for follow-up care. Duke’s Center is taking a radically different approach—children may travel to Duke to receive treatment, but subsequent therapy would happen locally. This will require two components: partnerships and training.

Duke will identify community partners throughout NC to provide pediatric audiology, speech and language, and education services. The goal will be to encourage these partners to direct patients to Duke for specialized care and, afterward, work alongside these partners to provide follow-up care.

“We want to make sure we’re doing that as a team and not just turning over a patient to another provider without continued integration of services,” says Erin Blackburn, CI audiologist.

For parts of the state that don’t have necessary services nearby, Duke plans to train community providers to support children and families. The goal is to build the necessary capacity for collaborative community services. To achieve this goal, Francis is assembling a multidisciplinary core team, including members from pediatric otology, audiology, speech-language pathology, child and family life, and social work. Specialists from other disciplines—developmental child psychology, music education, and pediatric medicine—are included as needed.

Additionally, the program is building working relationships with North Carolina service providers such as the Early Intervention Program for Children who are Deaf or Hard of Hearing, BEGINNINGS, Hands & Voices parent support group, the Early Hearing Detection and Intervention Program, and public school providers. At the center of their approach are the children and families who are affected. A parent advisory panel includes parents whose children were treated at Duke as well as those who received treatment elsewhere. The parents’ openness and candor is helping guide Duke’s new program.

“Parents know firsthand what they must have in order for their child to have the greatest opportunity for success,” Alberg says. "We’re really relying on them to provide that information for us." Alberg and Francis are excited about the program’s plans to help children with CIs as well as those who have any level of hearing loss. “We really want to improve hearing health across the board,” she says. The power of the program comes from strengthening the network of providers across the state so that children receive the care they need, wherever they live. “If we want a child to be successful over time, we have to figure out how to provide as many supports as possible,” Alberg says.
On April 28, 2018, Speech Pathology and Audiology sponsored Duke HEARS (honor, educate, advocate, relate, support) Transitions, a free day of fun, support, learning, and networking for children with hearing loss and their families.

The day focused on the important transition from Early Intervention and preschool to elementary school. Participants had the opportunity to interact with the many different professional groups who participated including North Carolina BEGINNINGS, Durham Public Schools, Wake County Public Schools, Duke Child Life, and Duke Arts and Health.

A three-hour educational session was offered for the adult participants on important topics pertaining to transitions from early intervention services into the elementary school system. Attendees met an expert panel of local medical professionals, teachers, and parent educators who spoke about their role in the children’s transition to elementary school. Guest speakers addressed topics such as advocating for children with hearing loss in the elementary school and navigating the legal and practical issues of the educational system including the individualized education plan (IEP) and 504 plan. Additionally, they spoke about how to empower children who are deaf or hard of hearing to become independent and self-sufficient adults with hearing loss.

A concurrent program was held for children age three and over and their siblings. The children participated in fun and educational activities while meeting other kids in the community with hearing loss. Activities included art projects, playing the ukulele and singing, learning how to care for hearing aids, reading a book together about self-advocacy, and fun outdoor games. Lunch was provided for families and volunteers and all were able to connect and visit in a relaxed setting while the children played.

One family shared the following: “The day we spent at Duke HEARS was a really good time. While my kids were playing and learning downstairs I was learning a lot with the conferences upstairs. At the end of the day, we enjoyed seeing our kids singing and playing plus the excellent lunch we got. I would like to thank you for the invitation and it would be very helpful if Duke could repeat the fabulous experience.”

This was a great day for children with hearing loss, their families, and professionals to connect with each other, learn together, and have fun! There will be another Duke HEARS event in Spring 2019.

On September 1, 2018, Sherri Smith, AuD, PhD, joined the HNSCS faculty as Chief of Audiology and co-Chief of the Department of Speech Pathology & Audiology at Duke University Hospital.

Sherri received her BA in communication sciences, MA in audiology, and AuD and PhD from the University of Florida (1993–2003). Prior to joining Duke, Sherri worked as a clinician investigator at the VA Medical Center in Mountain Home, Tennessee, and as a faculty member in the Department of Audiology & Speech Pathology at East Tennessee State University.

Her clinical interests include audiological rehabilitation and cochlear implants in adults, with a research interest in rehabilitation.

**ADDITIONAL NEW TEAM MEMBERS**

**Trish Ball, AuD (Vanderbilt University School of Medicine)**
Prior to Duke, Dr. Ball worked as an audiologist at Charlotte Eye Ear Nose & Throat Associates. Her main passion in the field of audiology is working with patients who have balance disorders.

**Alexa Hornik, AuD (University of Tennessee)**
Dr. Hornik previously worked at the Ear Center of Greensboro. She works with all populations but especially enjoys working with cochlear implant patients.

**Rebecca Lee, AuD (University of Louisville)**
Prior to Duke, Dr. Lee worked at Carolina Hearing Group and Wake Ear, Nose, and Throat Associates.

**Jennifer Clarke, AuD (Gallaudet University)**
Dr. Clarke is a pediatric and adult audiologist who completed her residency here at Duke in 2013. She worked at Nashville ENT Audiology until returning to Duke in July 2018.

Duke Hearing Center also welcomed Camille Gossett, BS, Audiology Technician (Raleigh) and Jamie Deaton, Speech and Audiology Aide (South Durham).
Row 1
Howard Francis, MD, MBA
Professor of Surgery
Debara L. Tucci, MD, MBA, MS
Professor of Surgery, Co-Director, Cochlear Implant Program
Susan Emmett, MD, MPH
Associate Professor of Surgery and Global Health
David M. Kaylie, MD, MS
Associate Professor of Surgery
Calhoun D. Cunningham III, MD
Associate Professor of Surgery

Row 2
Joshua F. Smith, MMS, PA-C
Physician Assistant
Andrea Bailey, MA, CCC-A
Director of Audiology Services
Laura Barth, AuD, CCC-A
Clinical Audiologist
Susan Bergquist, MS, CCC-A
Senior Clinician

Row 3
Erin L. Blackburn, AuD, CCC-A
Co-Director, Cochlear Implant Program
Noelle Roth, AuD, CCC-A
Clinical Audiologist, Cochlear Implant Specialist
Krista Roper, AuD, CCC-A
Senior Clinician
Sherr Smith, AuD, PhD
Chief of Audiology, co-Chief of the Department of Speech Pathology & Audiology, Duke University Hospital
Holly VanHorn, AuD, CCC-A
Senior Clinician

Not pictured
Trish Ball, AuD, CCC-A
Clinical Audiologist
Jennifer Clarke, AuD, CCC-A
Clinical Audiologist
Richard Clandaniel, PT, PhD
Head of Vestibular Therapy
Hannah Heet, AuD, CCC-A
Clinical Audiologist, Vestibular Specialist
Alexa Hornik, AuD
Clinical Audiologist
Graciela DeAngelis LaVack, MEd, CCC-A
Clinical Audiologist
Christy Holmes, AuD, CCC-A
Newborn Hearing Screening Coordinator
Rebecca Lee, AuD
Clinical Audiologist
Ann Mabie, MSPA, CCC-A
Cleft/Craniofacial Team Coordinator
Sara Pastoor, AuD, CCC-A
Clinical Audiologist
Jennifer Rollinson, MS
AuD Resident
Elizabeth Rooney, AuD, CCC-A
Clinical Audiologist
Karma Tockman, MA, CCC-A
Senior Clinician
Rory Vose, MA
AuD Resident
Jacob Landis began losing his hearing when he was 2. By the time he was 8 he was becoming despondent.

Landis of Annapolis, Maryland, brought his story to Durham, speaking to the Southwest Durham Rotary Club and bringing a group of nearly 300 to a 2018 Durham Bulls game against the Columbus, Georgia, team.

Hearing aids worked for Landis for years, but as his hearing got worse they became ineffective. He can remember being able to hear the phone ring one day and the next seeing his younger brother and sister run to answer the phone because he had never heard it. He burst into tears.

“My hearing loss was deteriorating so quickly that my resiliency, my toughness, I couldn’t keep up with the emotional woe that was taking place,” he said.

Holding a conversation with his peers at the lunchroom table became more and more difficult, and participating in the classroom became impossible.

As he was withdrawing socially, academically and emotionally, he found hope in a new treatment called cochlear implant surgery that his father had discovered in a brochure.

The method involves implanting an electrode in the ear’s cochlea and attaching a second component, a sound processor, behind the ear. The outside component picks up the sounds and transmits a signal to the implant, which stimulates the cochlear nerve.

In 1999, at age 10, Landis had the procedure done at Johns Hopkins Hospital. At the time only about 5,000 of the surgeries had been done. Worldwide today about 300,000 have been completed.

“The cochlear implant gave me my son back,” said Landis’ father, Randy, who is accompanying him on a tour of minor league ballparks to raise awareness and money for the treatment. “It honestly gave me my boy back. It is wonderful to see the relationships that are now within the hearing loss community resulting from his events.”

After his surgery, Jacob Landis became an ambassador for cochlear implants. He met with families considering the surgery and spoke to engineering students at Johns Hopkins.

Dr. Howard Francis, who was at Johns Hopkins at the time of Landis’ surgery and is now a professor at Duke University Medical Center and chief of the division, said at the Rotary Club meeting that Landis had insights about the treatment that not even the professionals had.

Landis was able to continue in a mainstream school and went on to graduate magna cum laude from the University of Maryland. He works full time at Whole Foods Market in Annapolis.

Landis took his ambassador role even further in 2013, when at age 23 he combined his love of baseball and bicycling when he undertook a ride around the continent to visit all 30 Major League Baseball stadiums, a 10,500-mile ride. His goal was to raise awareness of cochlear implant surgery and raise funds for those who couldn’t otherwise afford the treatment.

“The excitement it generated in the hearing-loss community just kept me going,” Landis said. He stayed in homes of volunteers from the hearing loss community. A “chase car” followed his route with him, likely saving his life when a truck hit him on the final leg of his tour from Tampa to Miami. He went on to do shorter rides in 2014, 2015 and 2016, and has ridden nearly 20,000 miles. His efforts have raised $200,000 over the last five years and have helped fund 15 cochlear implant surgeries.

“The cochlear implant is literally the link that hearing-impaired children have to their hearing families and to opportunities in the hearing world,” said Francis, who has been preforming the surgery for 20 years. “It gives them access to speech sounds that they otherwise would not be able to hear with clarity, and enables them, therefore, to develop a level of language learning, a level of literacy, that they can take advantage of mainstream schools.”

The 2013 Lasker-DeBakey Clinical Medical Research Award, often a precursor to the Nobel Prize, went to three scientists who developed the cochlear implant, including Blake S. Wilson of Duke.
Treatments for the full spectrum of laryngeal conditions are being offered by Alissa Collins, MD, and Seth Cohen, MD, MPH, otolaryngologists-head and neck surgeons and voice care specialists in the Duke Voice Care Center. The team is treating the full spectrum of laryngeal conditions—from laryngitis and voice strain to vocal cord paralysis, vocal tremors, polyps, laryngeal papillomas, and tracheotomies. They also help patients with voice problems related to acid reflux, allergies, chronic cough, and swallowing disorders.

“A substantial portion of the patient population being treated for laryngeal conditions may have lung cancer or other comorbidities that make surgery in the OR more involved or more risky than usual,” says Cohen. “We’re pleased to offer this new approach to providing care for chronic, debilitating conditions in a better fashion with less morbidity.”

One of Cohen’s patients recently benefited from injection laryngoplasty performed in the clinic after steroids, antibiotics, and a proton pump inhibitor (PPI) failed to treat his debilitating vocal cord paralysis. “Unfortunately, patients experiencing larynx symptoms may suffer unnecessarily because of misdiagnosis before they consult a specialist,” says Cohen. This patient’s voice returned to normal within a few days of the procedure and he’s had no further problems.

Looking at the future of voice disorder treatments, Cohen says Duke is involved in computational fluid dynamics modeling studies to examine how inhaled steroids might help concentrate anti-inflammatory medications in the area of stenosis. Other areas of research will involve the overuse of PPIs and how it contributes to adverse events such as pneumonia.

“Problems with the larynx affect our voices, our enjoyment of meals, our ability to exercise and even to breathe, so it’s very rewarding to help patients with these conditions,” says Collins.

Some of the services provided include:

**Injections** for vocal cord paralysis. Patients with paralyzed vocal cords are often treated with injections either through the mouth or the neck. “We’re finding that if we treat this condition as early as possible after diagnosis, patients are getting long-term benefits from it,” says Cohen.

A technique showing early promise for idiopathic subglottic stenosis is serial **steroid injections into the stenosis**, similar to procedures for a keloid or hypertrophic scar. “People with idiopathic subglottic stenosis often spend years going to gastrointestinal and pulmonology providers searching for a solution, and many are being taken to the operating room for surgery every six months. We can do injections in the clinic and keep them out of the operating room,” says Collins.

**Laser procedures** for lesions. Laser procedures are used to treat a host of lesions that historically have required general anesthesia in the OR. Conditions such as recurrent laryngeal papillomatosis and vascular polyps are treated in the clinic now, allowing patients to get back to their lives faster.

**Tracheostomy tube removal.** “Some patients are given a tracheostomy and told there’s nothing more that can be done,” says Collins, “but that is life-altering for people. So, if we can say there’s something else we can do to get the trach out, even though it may affect a patient’s voice a little, a lot of people are willing to take that chance.”
At the Duke Voice Care Center, voice therapists play a key role in the management of patients with laryngeal conditions by providing a high level of expertise within a specialized niche in speech pathology. “Several different problems can arise in the larynx,” says Lauren Lindigrin Fay, MS, CCC-SLP, Senior Clinician at the Voice Care Center. “Some respond best to surgical intervention, but we can balance that with behavioral strategies.”

For many laryngeal conditions, voice therapy is the first line of defense. As a conservative approach, it’s one many patients prefer to start with, explains Fay. For a patient with vocal cord paralysis, that may mean exercises to reduce strain and effort when talking, increase vocal stamina, and even improve breathing. A patient with a vascular polyp may learn about proper vocal hygiene—avoiding irritating substances, budgeting voice use—and receive acoustic analysis to guide specific therapeutic exercises. “We see how things are and aren’t improving, and we go from there,” Fay says.

Sometimes, despite patients’ best efforts, they don’t make sufficient improvement. That’s when the Voice Care Center team explores other options, with the voice therapist working side-by-side with the physician in a multidisciplinary environment. “We work in close collaboration with the doctors,” Fay says. “The fact that I can communicate with the doctor about a patient—let them know that we’ve tried therapy, but it’s not working—is really important.”

If a medical or surgical intervention is recommended, a voice therapist’s role doesn’t end. They’re active in the peri-operative management of many patients, helping them learn to use their voices in the healthiest way. The goal is for the patient to continue to improve function after treatment.

At the Voice Care Center, patients benefit from treatment options and specialization they may not get elsewhere. For example, the team includes several speech pathologists who are also professional singers and singing teachers, which allows them to provide an even deeper level of expertise for patients who are singers. Patients also have access to a full range of therapy options, whether that’s several voice therapy sessions or an in-office procedure that doesn’t require anesthesia. “It’s great to have a few avenues for patients, to be able to do things based on their comfort level,” Fay says.
NEW ADDITIONS TO THE DUKE VOICE CARE CENTER TEAM

Meghan Esper, MA, CCC-SLP, joined the Duke Voice Care Center team as a clinical speech language pathologist in September 2018.

Meghan received a bachelor’s degree in general music (voice) and communications studies at Albion College. After working in business development and marketing for 8 years, she returned to school at the University of North Carolina at Greensboro to pursue a master’s degree in speech language pathology.

Since receiving her master’s degree, Meghan has also worked in early intervention with children who have developmental delays. She has a particular clinical interest in serving pediatric patients, as well as adults with hyperfunctional and age-related voice disorders.

On August 15, 2018, Alissa Collins, MD, joined the HNSCS faculty as Assistant Professor.

Alissa completed her fellowship in laryngology with Dr. Blake Simpson at the University of Texas Health Science Center at San Antonio in July 2018 following her otolaryngology residency at Duke from 2012–2017. She received her BS in chemistry at the University of Richmond, her MS in chemistry from the University of Arkansas at Little Rock, and her MD from the University of Arkansas.

Her clinical interests include all aspects of laryngology with a specialty in upper airway stenosis and in-office procedures, such as injection augmentation, KTP laser treatment of vocal fold lesions, and Botox® injections for spasmodic dysphonia. Her research interest is in neurolaryngology. Alissa is excited to return to Duke to join the DVCC team.

Duke Voice Care Center Faculty & Staff

Row 1
- David L. Witsell, MD, MHS  
  Professor of Surgery  
  Medical Director, Duke Voice Care Center
- Seth M. Cohen, MD, MPH  
  Associate Professor of Surgery
- Alissa Collins, MD  
  Assistant Professor of Surgery
- Eileen Raynor, MD  
  Associate Professor of Surgery and Pediatrics

Row 2
- Leda Scearce, MM, MS, CCC-SLP  
  Clinical Associate, Clinical Singing Voice Specialist, Director of Performing Voice Programs and Development
- Gina Vess, MA, CCC-SLP  
  Clinical Associate, Director of Clinical Voice Programs
- Tara Nixon, MM, MS, CCC-SLP  
  Senior Clinician, Clinical Singing Voice Specialist
- Cristen Paige, MS, CCC-SLP  
  Senior Clinician
- Emily Wolber, DMA, MEd, CCC-SLP  
  Clinical Singing Voice Specialist

Support Staff (not pictured)
- Sherita Barnes  
  Administrative Clerk
- Jamie Deaton  
  Speech and Audiology Aide
- Karen Stark  
  Duke Voice Care Center Liaison
Industrial designers are fascinated by objects—especially those things that are used for something other than what they were initially intended for. For Sandeep Bhatt, a graduate student in industrial design at NC State University, the object that caught his attention was one used commonly in clinical voice therapy regimens: the drinking straw.

Several years ago, Bhatt, a vocalist and multi-instrumentalist, visited the Duke Voice Care Center after weekly live performances left him with dysphonia. There, he saw laryngologist Seth M. Cohen, MD, MPH, and speech pathologist Leda Scearce, MM, MS, CCC-SLP, who prescribed a successful voice therapy regimen that included semi-occluded vocal tract (SOVT) exercises using a plastic drinking straw. During these exercises, the patient makes sounds through a straw, generating a pressure that helps the vocal folds oscillate more efficiently while reducing strain. It’s one of the most frequently used SOVT exercises—but this non-standardized, unregulated object has ample opportunity for optimization.

“A straw is meant to drink liquids out of a cup,” Bhatt says. “The materials, the shape, even the environmental consequences of using straws are all factors to consider when it’s used as a therapeutic device.”

MERGING VOCAL HEALTH AND DESIGN

Bhatt made the transition from patient to researcher when he became a graduate student in industrial design. Tasked with developing a home use medical device, he sought to bridge the worlds of vocal health and design by developing better alternatives to straws. The project is supported by Dennis Frank-Ito, PhD, Assistant Professor of Surgery and Assistant Professor of Mechanical Engineering and Materials Science at Duke, Kelly Umstead, MBE, MID, Assistant Professor of Industrial Design at NC State, and Leda Scearce. Bhatt began the project by interviewing practitioners, both locally and around the country, to better understand the role of vocal therapy in their work. He then spent time as a visiting observer at the clinic, making note of the way the patient and voice therapist interact, the types of vocal therapy regimens prescribed, and how straw phonation is used in the regimen.

In August 2018, Bhatt, Scearce, and Umstead sought feedback from voice professionals, speech pathologists, and teachers at the VASTA/PAVA Conference, co-hosted by the Pan American Vocology Association and the Voice and Speech Trainers Association. “We went there to try to understand their needs,” Bhatt says. “They’re really the people who are implementing this on a regular basis, so how can we optimize it from their perspective?” The trio noted the ubiquity and variability of the practice, and the lack of a standardized protocol.

BUILDING A BETTER SOVT DEVICE

Industrial designers optimize products and services from the user’s perspective—so from here, the group will do pilot studies to gather quantitative and qualitative data and then establish user needs. “That’s really critical. If you can identify user needs, we can identify what the product should do,” Bhatt says. Then, they’ll approach it from an interaction and an engineering perspective—all the pieces that contribute to the design of the product. Frank-Ito, whose research interests include modeling the effects of human airway anatomy on respiratory airflow patterns using computational fluid dynamics, strengthens the project by providing an essential biomechanical dimension. As an industrial designer, Bhatt welcomes interdisciplinary collaboration. “Each member of the team has a unique expertise and a real enthusiasm for the project, creating a very robust solution development process.”
Walter Lee, MD, MHS, who was recently awarded MEDx Colloquia grants, leads a cross-cutting, interdisciplinary team from both the School of Medicine and Pratt School of Engineering to explore engineering solutions to issues and challenges in two areas.

The first area is improving head and neck cancer detection technologies in low-resource settings throughout the world. Specialized biomedical devices and technology serve a critical role in the care of cancer patients in resource-rich settings, contributing to disease diagnosis, treatment, and surveillance.

Furthermore, the implementation of contemporary, specialized technology has significantly reduced the morbidity and mortality related to cancer care in the developed world. However, these devices are often scarce in low-resource settings, if available at all, rendering cancer diagnosis and treatment a continued significant problem in low-income regions. Challenges include cost, properly trained personnel, and logistical barriers (e.g. procuring replacement parts). With the increase of cancer incidence globally concentrated in low-income regions, these crucial technologies must be readily available and applicable to those in low-resource settings.

The second area is to foster healthier connections globally through technology innovations in otolaryngology. Care in head and neck surgery & communication sciences (HNSCS) is often limited to high-resource academic centers and urban areas, resulting in underserved populations in the United States and globally. Innovative technology to deliver diverse diagnostic interventions in HNSCS is critical to reaching underserved populations. Multi-disciplinary collaborations to address innovative technology needs, such as solar-powered hearing aids and devices and low-cost, portable diagnostic scopes and instruments, are crucial to early detection and treatment in HNSCS.

These awards bring together faculty and students from the engineering school to shadow HNSCS faculty to observe and discuss potential opportunities for pilot projects. Attendees and partners also come from the Duke Global Health Institute. The hope is that ideas addressing everyday challenges could be generated and developed to become sustainable pilot projects. These endeavors were additionally
supported by a generous contribution from Larry Ballas, a grateful patient who has had a highly successful career involving biotechnology and drug development.

MEDx was formed in 2015 to enhance existing ties and foster new interdisciplinary collaborations between the School of Medicine and the Pratt School of Engineering. MEDx will foster the exchange of ideas and create research opportunities between physicians, engineers, computer scientists, researchers, and innovators. It will promote the training of the next generation of researchers and clinicians to work symbiotically on new solutions to complex clinical problems. It will also develop strategic commercialization opportunities to translate research advances into effective devices, therapeutics, and care delivery systems.
Ms. P, a 71-year-old female with a known history of lobular breast carcinoma treated 6 years ago, presented to her neurologist with numbness of the tip of the tongue, skin overlying the right lower jaw, and weakness of the masticators on the right side.

An MRI showed expansion of foramen ovale, thickening and enhancement of the intracranial portion of the mandibular division of the trigeminal nerve (CN V3) and along the course of the nerve in the infratemporal fossa with expansion into the alveolar nerve canal, and increased uptake activity on PET/CT scan. A biopsy of the mental nerve was inconclusive.

The patient preferred to receive a symptomatic treatment with carbamazepine and was lost to follow-up. Due to progression of numbness and weakness in mastication, the patient was referred to Dr. Ralph Abi Hachem, a fellowship-trained rhinologist and skull base surgeon at the Duke Skull Base Center, who explained that it was possible to biopsy the lesion at the base of the skull with minimal morbidity, thus avoiding a temporal craniotomy with brain retraction.

An endoscopic endonasal approach to the middle cranial fossa/Meckel’s cave and the intracranial portion of CN V3 was performed by Dr. Abi Hachem and Dr. Ali Zomorodi (Neurosurgery). The biopsy was consistent with metastatic breast carcinoma. The patient was treated with stereotactic radiosurgery and hormone therapy and is doing well with no new symptoms at 3 months following completion of her treatment.
Ronald was 27 years old when he presented to the Duke Head and Neck Surgery clinic in January 2016 with recurrent epistaxis and a right neck mass. Nasal endoscopy at that time revealed a right nasopharyngeal mass. Imaging revealed a 4-cm mass encasing the petrous segment of the right internal carotid artery and metastatic lymph nodes in the right neck and retropharynx.

He was ultimately diagnosed with a T4bN2b high-grade non-intestinal type adenocarcinoma of the nasopharynx. Ronald’s case was discussed by the Multidisciplinary Head and Neck Tumor Board as well as the Skull Base Center. Given the patient’s age and excellent health status, we decided to perform primary surgery with curative intent. Ronald subsequently underwent right-sided neck dissection with Dr. Dan Rocke, a head and neck surgical oncologist, followed by a combined endoscopic nasopharyngectomy and open craniotomy with carotid bypass and resection with Dr. David Jang (rhinology) and Dr. Ali Zomorodi (Neurosurgery) of the Duke Skull Base Center. Complete resection with negative margins was obtained.

After his recovery, Ronald underwent adjuvant chemoradiation. He has remained disease-free for close to 3 years and is functioning independently with minimal neurologic deficits.

**Top left:** 4-cm high-grade non-intestinal type adenocarcinoma of the nasopharynx

**Top right:** Encasement of the petrous segment of the internal carotid artery

**Bottom left:** Immediate postoperative MRI showing gross total resection

**Bottom right:** Two-year postoperative MRI showing no evidence of recurrence
Creating better informed, more engaged patients and families leads to better outcomes. Advanced practice providers (physician assistants and advanced practice registered nurses) complement physicians’ patient education efforts at Duke HNSCS, filling in critical gaps in understanding.

Indeed, Laura Geraghty, PA-C, says that patient communication is at the center of her work. “I take it very seriously,” she says. “It’s the most important part of my job.” Compliance is much higher when patients and providers share a common understanding of treatment goals and vested interest in an optimal outcome. Geraghty is grateful that, as a physician assistant, her schedule allows her to focus on establishing rapport, developing relationships, and answering all questions families may have.

When Geraghty started in pediatric otolaryngology 7 years ago, she admits she was initially cautious. “Exams can be harder,” she says. “You’re always working on a moving target.”

She quickly found that communication is the key to better experiences for the child, parent, and provider. Letting a child know exactly what to expect before a potentially uncomfortable procedure is one way to do that. “The child has more control that way, and they’re more likely to cooperate,” Geraghty explains. It’s because of this approach, she says, that her team has success performing procedures in the clinic that are traditionally difficult, such as nasal cauterization, endoscopies, and cerumen removal. Specialists from Child Life Services also provide invaluable support for clinic procedures as well.

Being upfront with a parent or caregiver—“the other patient in the room,” Geraghty says—is equally important. She has learned to not be scared to share details with families. “Sometimes we want to sugarcoat or gloss over the facts,” when in fact, she says, what puts the parents at ease is being equipped with all of the necessary information.

Her role as a PA also gives patients access to care faster. That means getting an appointment within a week or two rather than a month or two. Her work helps streamline the treatment process by minimizing the number of trips patients have to make. Because their work is often multidisciplinary in nature, Geraghty and the pediatric otolaryngology team aim to care for patients with complex conditions in the most efficient manner. The clinic sees patients who require care from otolaryngologists as well as pediatric specialists in audiology, pulmonary and sleep medicine, dentistry, gastroenterology, ophthalmology, general surgery, and neurosurgery. “In this particular practice, we work really hard to coordinate as much patient care as possible.”

Geraghty is glad she plays a key role in improving health outcomes for her patients. “Working with children is rewarding,” she said. “You can get them back on track to being a normal kid.”
Recent technological advances in communication capabilities have allowed us to expand our reach and abilities to coordinate and care for children and families, as well as increase convenience. Consistent with Duke Health’s mission, vision, and values, a Duke Telehealth Program has been developed, which uses telehealth to “improve access and convenience for patients and families, improve satisfaction among our providers, improve clinical process flow and connectivity with our referring providers and care team members, establish a platform for ongoing innovation, and expand capacity on our fixed physical footprint to deliver high-value, high-quality healthcare to the communities we serve.”

Over the past year, we have grown and developed a telemedicine program for pediatric otolaryngology in the division to allow for remote, video visit postoperative follow-ups for selected patients and families. We are able to video conference from the convenience of the families’ place of choosing and often save those kids and caretakers a day off of work/school or time away from their other daily responsibilities. Through the Duke MyChart smart phone application, a secure, virtual video patient visit portal is created to allow for our providers to see and speak with child and caregiver to follow up after surgery from the comfort and convenience of their home, a local provider’s office, or other site. This can be especially helpful for those families that travel a great distance, and it expands the geographical reach of our pediatric services.

We also would like to take this opportunity to announce our new, official Twitter handle @Duke_Oto. Please follow us for the latest announcements and updates!

Nearly 75% of all doctor, urgent care, or ER visits could be handled effectively over the phone or by video. According to statistics from the American Medical Association and Wellness Council of America.

Pediatric Otolaryngology Faculty

David Powers, MD, DMD
Director, Craniomaxillofacial Trauma and Reconstructive Surgery Fellowship, Associate Professor of Surgery

Eileen Raynor, MD
Associate Professor of Surgery and Pediatrics

Jeffrey Cheng, MD
Associate Professor of Surgery and Pediatrics

Physician Assistant
Laura Geraghty, BS, MPA, PA-C (pictured opposite page)
Duke Team Creates App to Advance Voice Volume Therapy

When voice therapy patients need help modulating or increasing their speaking volume, speech pathologists may use a sound pressure level (SPL) meter alongside other therapy techniques. While a SPL meter is functional and convenient, it is not engaging or motivating for patients, especially children. An app developed by Duke researchers aims to solve this problem. Duke speech-language pathologists collaborated with Kevin Caves, a clinical associate in the Department of Surgery who researches technologies for people with disabilities, and Leighanne Davis, a research and development engineer, to create SpeakUp: An SPL Meter. The Android-based app is designed to give real-time feedback on a user’s speaking volume.

In this interactive game, an animated bee (or bouncing ball, depending on the settings) moves vertically across the screen based on the user’s relative speaking decibel volume. The patient is encouraged to speak within a target zone, which can be set by the clinician. It’s particularly useful for clinicians to be able to adjust these levels as a patient makes speaking volume improvements.

The app aims to help children who speak too softly or loudly as well as adults who speak too softly, including those with Parkinson’s disease. Beta tests showed that SpeakUp helped pediatric patients gain a visual understanding of the concept of loudness and provided a valuable complementary experience to a therapy session. In addition to increasing user engagement, it allows patients to continue therapy at home.

The project was supported by the LiveWell RERC grant from the National Institute on Disability, Independent Living, and Rehabilitation Research, 90RE5023. SpeakUp is available for free from the Google Play and Android App stores.

Fiberoptic Endoscopic Evaluation: A Valuable Tool in Infant Care

At Duke Speech Pathology, fiberoptic endoscopic evaluation of swallowing (FEES) is a valuable tool for the assessment of swallowing in children of all ages. While FEES can be completed throughout childhood, it offers unique advantages to the infant population.

Aspiration has been increasingly recognized in infants, especially those diagnosed with laryngeal cleft, laryngomalacia, unilateral vocal fold paralysis, as well as other diagnoses. Velayutham et al. (2017) found that 41% of children under age six months who underwent instrumental swallow evaluation aspirated and, of those, 95% silently aspirated.

Instrumental assessments are routinely used to evaluate swallowing function in infants and the choices are either video fluoroscopic swallow study (VFSS) or FEES. While both are well-accepted options, FEES has particular advantages for infants. During an FEES, swallowing function can be directly observed via an endoscope passed trans-nasally by one speech-language pathologist (SLP), while the infant is fed by a parent or an SLP from the feeding team. Infants can be fed their own formula or breast milk, and FEES can be used to evaluate swallowing during breast feeding. FEES also allows for infants to be fed in their most natural position, keeping the infant comfortable and allowing for careful SLP assessment during the study.

Throughout the study, adjustments can be made to feeding techniques to reduce aspiration risk and maximize successful feeding strategies. FEES also allows for optimal positioning of older children, especially those requiring alternative positioning due to physical limitations. FEES can be completed in supportive seating, such as adaptive strollers or wheelchairs.

Compared with VFSS, FEES has the added benefits of no barium and no radiation exposure; therefore, FEES studies have no time limit. This can be valuable when a clinician wishes to assess pharyngeal function throughout the duration of a feeding, including any endurance factors. Duke SLPs are trained and receive privileging in FEES and approach each study with careful consideration and planning. We are committed to providing swallowing evaluations that are safe, thorough, and patient/family centered for all patients, including the smallest ones.
SPEECH PATHOLOGISTS

CLINICAL DIRECTOR,
INTERIM CO-CHIEF, DEPARTMENT
OF SPEECH PATHOLOGY &
AUDIOLOGY, DUKE UNIVERSITY
HOSPITAL
Kimberly Irby, MS, CCC-SLP

ASSOCIATE PROFESSOR
Harrison Jones, PhD

CLINICAL SPECIALISTS
Lindsay Dutko, MA, CCC-SLP
Jenny Kern, MS, CCC-SLP

CLINICAL COORDINATORS
Kelly Gordon, MS, CCC-SLP
Barron Suarez, MS, CCC-SLP
Megan Urban, MA, CCC-SLP

SENIOR CLINICIANS
Nicole Badgley, MS, CCC-SLP
Jen Blum, MA, CCC-SLP
Dianamari Castillo-Ruiz, MS, CCC-SLP
Kelly Crisp, MA, CCC-SLP
Karen Everitt, MS, CCC-SLP
Katie Flynt, MS, CCC-SLP
Joy Kerner, MA, CCC-SLP
Jenna Kneepkens, MS, CCC-SLP
Katherine Loebner, MS, CCC-SLP

Lanif Lopez, MA, CCC-SLP
Deborah McMechan, MA, CCC-SLP
Meredith Nye, MS, CCC-SLP
Lauren Roberts, MS, CCC-SLP
Melinda Roman, MA, CCC-SLP
Lucia Smith, MS, CCC-SLP
Janet Strollo, MS, CCC-SLP
Jamie Thomson, MS, CCC-SLP
Dina Vallabh, MEd

CLINICAL SPEECH PATHOLOGISTS
Brian Bacchi, MS, CCC-SLP
Milisa Batten, MS, CCC-SLP
Olivia Beasley, MS, CCC-SLP
Katie Broadwell, MS, CCC-SLP
Jennifer Christensen, MS, CCC-SLP
Ashley Edds, MS, CCC-SLP
Julie Garris, MS, CCC-SLP
Carlee Jones, MS, CCC-SLP
Jennifer Jurgenson, MS, CCC-SLP
Chelsea Kildow, MS, CCC-SLP
Jennifer Lord, MSC, CCC-SLP
Megan Lynch, MA, CCC-SLP
Jessica Mancinik, MA, CCC-SLP
Jill Marcus, MA, CCC-SLP
Kalie Mitchell, MS, CF-SLP

Cindy Murashima, MS, CCC-SLP
Kaylea Nicholson, MA, CCC-SLP
Jillian Nyswonger, MS, CCC-SLP
Sarah Plascyk, MS, CCC-SLP
Kimberly Powell, MS, CCC-SLP
Omnia Radwan, MEd, CCC-SLP
Haley Reiff, MS, CCC-SLP
Katie Shepherd, MEd, CCC-SLP
Sarah Stidham, MS, CCC-SLP
Megan Theilling, MSP, CCC-SLP
Jacqueline Vanderbilt, MS, CCC-SLP
Jacquelyn Vorndran, MA, CCC-SLP
Christine Wilkie, MA, CCC-SLP
Komal Williams, MS, CCC-SLP

41% of evaluated infants <6 months were found to aspirate
This question comes up regularly from patients. Otolaryngologists have given allergy shots since allergy shots were first given.

One of the earliest articles (1911) about this was written by a physician who considered himself an otolaryngologist, though at that time there wasn’t a formal allergy and immunology specialty. In more densely populated areas, there are physicians who are allergists—they oversee a team that provides allergy shots for patients, and can see enough patients to make this financially viable. In many parts of our country, though, the local ear, nose, and throat doctor provides allergy shots, as there aren’t enough people who solely need allergy shots to support a practice.

So, yes, otolaryngologist-head and neck surgeons give allergy shots. Whereas allergy practice used to differ between ENTs and general allergists, that practice has now become more uniform and based on empiric science. As a result, there is now much less difference in treatment protocols between the ENT allergist and the allergy and immunology specialist. The concentration of antigens in a patient’s allergy shot mix are the same. The selection of what pollens and perennial triggers to test is the same between ENT and general allergists. Otolaryngologists and allergists might still argue about some finer points, but the result for the patient is a very similar experience and very similar positive result—fewer allergy symptoms, less need for allergy medication, and often better control of asthma.

At Duke Head and Neck Surgery & Communication Sciences, we have an excellent relationship with our colleagues at the Duke Allergy, Asthma, and Airway clinics. For example, patients who might have been tested and even started allergy shots in Durham can transfer their allergy care to Raleigh or to Person County, or to our other Durham locations, and vice-versa. This can be extremely helpful to accommodate the need for patients to change location over the 3 to 5 years of allergy shots that most patients will undergo.

We offer allergy skin testing, though we’ll order allergy blood tests when appropriate. We offer allergy shots (subcutaneous immunotherapy, SCIT) and allergy drops (sublingual immunotherapy, SLIT). While SLIT is still not covered by insurance, the total cost can still be quite close to insurance-covered SCIT options.

Please feel free to contact us if you have any questions about allergy immunotherapy at Duke.
EXPANDING OUR REACH ACROSS THE TRIANGLE

In addition to outpatient services provided by faculty in Clinic 1F of the Duke South Outpatient Center on Duke University Campus, our faculty and teams provide high-quality services at the following sites:

**Duke Otolaryngology of Raleigh**
3480 Wake Forest Road, Suite 404
919-684-3834 (for appointments)

**Duke Otolaryngology of South Durham**
(opened July 2018)
234 Crooked Creek Parkway
919-684-3834 (for appointments)

**Duke Otolaryngology of Durham**
Duke Medical Plaza
3116 North Duke Street, Entry 2
919-220-2020 (for appointments)

**Duke Otolaryngology of Person County**
783-C Doctor’s Court, Roxboro, NC
855-855-6484 (for appointments)

Otolaryngology Faculty & Staff

**Duke Otolaryngology of Durham**

Dane M. Barrett, MD
Clinical Associate in the Department of Surgery

James G. Ross, MD
Clinical Associate in the Department of Surgery

Sheila Ryan, MD
Clinical Associate in the Department of Surgery
OR Nurses Help Round Out a Skilled Surgical Team

In the operating room (OR), surgeons must stay focused in a high-stress environment, and the team they work with must be alert, prepared, and cohesive. At Duke, head and neck surgeons benefit from the vital support of OR teams at several different locations.

Trisha Holmes, Otolaryngology–Head and Neck Clinical Lead at Duke University Medical Center’s main campus, heads up a team of nurses who work alongside surgeons in Duke North ORs. Whether the surgeon is performing a cochlear implant, minimally invasive endoscopic skull base surgery, or an all-day head and neck tumor ablation and reconstruction, someone from Holmes’ team is there to help ensure that things run smoothly.

A nurse on Holmes’ team may be acting as a circulator (doing the charting, running the room during surgery) or a scrub tech (handing the instruments to the surgeon and monitoring supplies).

“We’re there so surgeons can focus on what they’re doing rather than wondering if something is on their tray,” she says. It’s a job that requires simultaneously taking care of the patient and supporting the surgeon—but Holmes says she encourages her team to develop more than their technical skills.

“We strive to deliver the most knowledgeable and specific care for the ENT population,” she says. “So I really encourage my team to not just be in the role and keep fulfilling their duties, but to own the service and the knowledge of it.”

That means thinking critically about their cases. OR teams frequently ask themselves, “Why are we doing this surgery? What’s the treatment going to be?” The idea is to develop a strong background knowledge of the cases and how they’re treated, so they can better anticipate the unexpected in the OR.

Holmes doesn’t underestimate the critical role OR teams play in the entire surgical process—particularly as it pertains to patients. Surgery can be a frightening experience, she says, and patients have to trust the people who are in the room with them. “We’re their main advocate in the OR,” she says. “We like patients to know that someone is looking out for them.”

NURSES, COORDINATORS, & MANAGERS

CLINICAL LEADS FOR OR TEAMS

Trisha Holmes
Duke University Medical Center

Dawn Clasey
Duke Raleigh Hospital

Tricia Fox
Duke Ambulatory Surgery Center

Terry Keranakis
Davis Ambulatory Surgery Center

Greg Kuttles
Duke Regional Hospital

Doris Benzara
Durham VA

TEAM LEADS

Irish Hamilton
Lead Staff Assistant

Jennifer Connor, BSN, RN
Ambulatory Care Team Lead
Duke Otolaryngology of South Durham

Cami Cunningham, BSN, RN
Nurse Manager Clinic 1F

Jenny Harris
Health Center Administrator
Duke Otolaryngology of Durham and Person County

Brandi Pinnell
Service Access Manager, Access Operations Management

Gabberl Houston
Service Access Team Leader, Surgery Access Center
Daphne Logue was a remarkable nurse (RN) whose death on February 16, 2018, robbed us of a great spirit. We were privileged to work with her at Clinic 1F for the last 5 years of her life. During that time, she provided exemplary care for countless patients and their families. She was brilliant, brave, and sometimes brash. She was funny, loud, irreverent, and an agent of change. It can truly be said that she left the world a better place.

Though Daphne was an exceptional nurse, she didn’t go back to nursing school until she was 40 years old.

In her blog, she wrote, “I just wanted a job that I could be good at and walk around loving people. Loving my coworkers, my doctors, the residents and most of all—our patients and their families.” She reminded us that the heart of medicine is love.

“Daphne exemplified love and compassion in all her nursing duties,” wrote nurse Kitty Lockner. “She would go above and beyond to help her patients. She welcomed them all to the clinic with a hug and a kiss. I learned true unconditional love and grace from her.”

In her dying as in her life, Daphne continued to care for others. In her last months, she wrote, “Today, I am not afraid of who has loved me and who has not. I am not afraid of who will come to say goodbye. I am afraid of who I left out telling them I love them and what a privilege it has been to be a part of their life.”

Daphne’s twin sister urged us to remember Daphne in these ways: “Thank a nurse. Speak kindly to your shuttle driver, secretary, parking attendant, cashier, waitress, or anyone else who you see every day—they are important and need to know it…Remember that “broken” people need love too.” Let us continue to honor Daphne by loving one another and our patients, broken though we all are.

In the spring of 2018, the Daphne Logue Citizenship Award was established to be given to a member of the division who embodies the spirit and dedication to patient care that Daphne once did. This individual is an advocate and a team player and does the right thing, even when nobody is looking. Kitty Lockner was the recipient for 2018.
MCCORKLES MAKE GIFT IN HONOR OF FORMER DIVISION CHIEF

In summer 2018, Wendy and Mac McCorkle made a $100,000 gift to fund leadership development in the division.

The Ramon M. Esclamado, MD, Leadership Legacy Fund supports leadership development training for faculty, trainees, and staff, with the ultimate goal of improving patient care. This endowment honors Dr. Esclamado’s legacy as a servant-leader during his 12 years as chief of HNSCS.

RESIDENT EDUCATION FUND TO BENEFIT OTOLARYNGOLOGY TRAINEES

As Duke Head and Neck Surgery & Communication Sciences continues to grow, trainee education is more important than ever. The Samuel R. Fisher Memorial Resident Education Fund will help HNSCS continue to provide exceptional education and attract residents of the highest caliber.

The division has designated $50,000 to this endowment, with a goal of raising $500,000. The fund will be used to purchase equipment and support unique educational experiences that will directly benefit the educational and professional development of residents in the program. The endowment honors the late Samuel R. Fisher, MD, a 1975 Duke alumnus who spent more than 40 years building Duke HNSCS.

“One the establishment of this fund validates Dr. Fisher’s lifelong passion for teaching and providing high-quality care to his patients,” says Russel R. Kahmke, MD, Assistant Professor of Surgery. “It will help ensure his legacy lives on through the support and development of future trainees.”

TWO WAYS TO MAKE A GIFT TO DUKE HNSCS OR DUKE SURGERY

1. Contact Marcy Romary
   Senior Director of Development
   710 W. Main St., Suite 200
   Durham, NC 27701
   919-385-0051
   marcia.romary@duke.edu

2. Visit surgery.duke.edu/gift or scan the QR code to the left to directly make a pledge.
   Select “Make a Gift to Duke Surgery.”
   Select Head and Neck Surgery and Communication Sciences from the drop-down menu, OR:
   Select “Or search for an area.”

Type in one of the following:
- S.R. Fisher M.D. Memorial for Resident Education
- Leadership Lived Out
- William R. Hudson, M.D. Endowed Lectureship Fund
- Ramon M. Esclamado, MD Leadership Legacy Fund
- Dr. Susan Emmett Global Health Fund
On October 25, a special event was held to honor the career of Ray Esclamado, MD, former Division Chief and Professor Emeritus.

This special evening, attended by over 70 people, included faculty, close friends, and family. Past and present colleagues and mentors came together from all chapters of his career, including those from the University of Washington, University of Michigan, Cleveland Clinic, and Duke. Attendees expressed heartfelt thanks, shared memories and stories, and participated in a short “roast” of Esclamado.

All of his adult children and their respective families, as well as his wife, Lorie, and his mother, Lourdes, attended and heard directly the impact he has had on so many lives. Esclamado was presented with a scrapbook of memory pages contributed by many in the division of HNSCS. His favorite dessert, chocolate banana cream pie, was served.

The evening concluded with the official announcement of the Ramon M. Esclamado, MD, Leadership Legacy Fund. This new endowment was established by a very generous gift from Mac and Wendy McCorkle of Durham to honor Esclamado’s legacy as a servant-leader by supporting leadership development training for faculty, trainees, and staff with the ultimate goal of improving patient care. Mac’s relationship with Esclamado started in 2012, when Mac was diagnosed with a highly aggressive stage IV medullary thyroid cancer. At the time of presentation, his calcitonin levels were over 17,000. Today, they remain at zero.

Mac and Wendy were motivated to make this gift to honor Ray’s legacy as an excellent surgeon, leader, mentor, and teacher. This investment in the leadership development of the division will have a lasting impact and is a very fitting tribute to Esclamado and his legacy. If you would like to contribute to his legacy through this fund, please contact Marcy Romary, Duke Health Development and Alumni Affairs, at marcia.romary@duke.edu or 919-385-0051.
One of the best ways to help medical students pursue a career in Otolaryngology–Head and Neck Surgery is to provide them access to residents and staff so they can learn more about what they do and who they are. On December 5, HNSCS faculty participated in a subspecialty panel for Duke medical students. Faculty provided a general overview followed by a short presentation on each subspecialty, including otology, head and neck, and rhinology. Students then had the opportunity to ask questions.

HNSCS organizes other events throughout the year to encourage students’ interest in the field, including a fiberoptic laryngoscopy clinic, a suturing clinic, an otology skills course, and a mentorship event. These otolaryngology interest group events are held in conjunction with HNSCS’s participation in first-year medical student anatomy course, lectures during students’ second-year surgery clerkship, and clinical rotations, including a second-year two-week selective, a fourth-year four-week acting internship, and a two-week communication sciences elective.

The Duke Otolaryngology Boot Camp is designed to educate new Otolaryngology residents regarding airway procedures such as intubation, tracheostomy, and foreign body retrieval as well as practicing laceration repair and discussing management of common OHNS Emergency Department consults. Residents from Duke, UNC, Wake Forest, Emory, and Georgia Regents University enjoy hands-on simulation and group discussion.

**HNSCS FACULTY DEVELOP MEDICAL STUDENTS’ INTEREST IN OTOLARYNGOLOGY**

MATTHEW CROWSON, MD

“Safety and Adverse Events in Management of Acute Mastoiditis in Children”
Am Society of Ped OHNS, Jul 2017

“Using Google Trends to Predict Respiratory Syncitial Virus Encounters at a Major Health Care System”
NC SC OHNS Meeting, Aug 2017
Canadian Society of OHNS, Jul 2018

“90 Years of Otolaryngology: Allergy Lit - Where We’ve Been and Where We Are Going,” “Meaningful Use: Patient reported Usefulness of Otolaryngology After Visit Summary”
AAOA, AAO-HNSF Sep 2017

ADAM HONEYBROOK, MD

“Physician Adherence to the AAO Clinical Practice Guidelines”
NC/SC Meeting, Aug 2017
AAOA, Sep 2017

“Pseudomonal Sinusitis is Associated with Higher Rejection Rates after Lung Transplantation for Cystic Fibrosis”
ARS, Sep 2017

“Sclerosing Mucoepidermoid Carcinoma of the Thyroid Gland,” “Substernal Thyroidectomy: A 13-year Experience,” “Laryngeal Gunshots: Case Report and Literature Review,” “Radiodensity of the OMC in Recurrent Acute Rhinosinusitis”
AAO-HNSF, Sep 2017

“Hearing and Mortality Outcomes Following Temporal Bone Fracture”
AAFPRS, Oct 2017

“90 Years of Otolaryngology: Allergy Lit - Where We’ve Been and Where We Are Going,” “Meaningful Use: Patient reported Usefulness of Otolaryngology After Visit Summary”
AAOA, AAO-HNSF Sep 2017

“A Novel External Nasal Splint”
Am Academy of Cosmetic Surgery, Jan–Feb, 2018

“A Novel Laryngoscope With an Adjustable Tip”
COSM, Apr 2018

“The Evolution and Future of Rhytidectomy”
Canadian Society of OHNS, Jun 2018

“Pseudomonal Sinusitis is Associated with Higher Rejection Rates after Lung Transplantation for Cystic Fibrosis”
ARS, Sep 2017

“The Evolution and Future of Rhytidectomy”
Canadian Society of OHNS, Jun 2018

“A Low Dose Oral Isotretinoin and Photoaging: A Review”
Cosmetic Surgery Forum, Nov 2017
HNSCS faculty has enjoyed rapid growth over the past decade. As part of our strategic plan, we applied to the Accreditation Council for Graduate Medical Education, and received a resident complement increase beginning with the 2018–2019 academic year. We were approved for four residents per year, making us one of the largest otolaryngology residency programs in the country.

The residents are exposed to a comprehensive clinical and research curriculum across a large programmatic footprint at Duke, reflected by the array of topics presented by our residents at regional and national meetings in the past year.
On the third weekend of June, the 2018 Resident Graduation and Alumni Symposium celebrated our new colleagues while welcoming back old friends.

Sujana S. Chandreasekhar, MD, served as the 2018 William R. Hudson, MD, Lecturer with a rousing talk on leadership, career development, and creating a balance between patient care, teaching, and family.

James E. Saunders, MD, a former graduate of our Duke Program, returned to give the 2018 Alumni lecture on his humanitarian efforts in hearing loss management in children in Nicaragua.

In addition to the residents and fellows presenting on their research endeavors, panel discussions were held with otology, rhinology, and head and neck oncology. The Duke Otolaryngology Alumni Society (DOAS) held its business meeting, reviewed the past year, planned for the next, and re-elected the current DOAS officers to another term.

- Daniel Rocke, MD, and Russel Kahmke, MD, will continue their dual role as president.
- Christopher Tebbitt, MD, will remain vice president.
- Mark LaVigne, MD, will remain treasurer.
- Kevin Choi, MD, will remain secretary.

On day 2 of the symposium, the Samuel R. Fisher, MD, Memorial Golf Tournament teed off to beautiful blue skies, fair winds, and a birdie or two. Later that day, the Division celebrated the graduation of Matthew G. Crowson, Adam L. Honeybrook, and Sean M. Johnson from residency, Kevin J. Choi from his Rhinology fellowship, and Jonathan Marc Cohen from his T32 research fellowship.

Alexandra Belcastro, Priya V. Dukes, Sarah Kortebein, Dehra McGuire, and William Reed were welcomed into the Duke family as well.

The 2019 Resident Graduation and Alumni Symposium is scheduled for June 21-22, 2019—block your schedules now!
A interdisciplinary team of nurses, respiratory therapists, speech pathologists, and ENT providers is dedicated to improving outcomes for tracheostomy patients at the Durham Veteran’s Affairs (VA) Medical Center. The group’s goal is to develop standards of care of tracheostomy patients guided by evidence-based practices.

The tracheostomy committee was formed in 2014, after a research project showed increased patient readiness for hospital discharge and improved patient outcomes after standardizing tracheostomy care and creating a discharge education pathway. The study also aimed to improve nurses’ comfort and competency when caring for tracheostomy patients. Prior to the study, nurses reported being uncomfortable taking care of tracheostomy patients because the admission of tracheostomy patients to inpatient units was inconsistent.

As a result, an educational program was rolled out to the nurses. Once the nurses completed the program, nurses reported an increase in competency and comfort level. To sustain these changes, an interdisciplinary tracheostomy committee was formed.

Currently, the tracheostomy committee is chaired by respiratory therapist Beth Sweeney. The committee addresses the need for improved care and education for tracheostomy patients and their families. It also serves as a resource for staff nurses. As an artificial airway, tracheostomy tubes can become obstructed with mucus plugs or blood clots, causing respiratory distress and airway obstruction. Providers must have the knowledge to recognize the obstruction as well as the confidence and skills to intervene and clear the airway. Additionally, the goal of the tracheostomy committee is to ensure the nurses at the bedside have the knowledge and skills to educate patients and families to recognize these symptoms and promote self-care.

The committee has made great gains in improving the delivery of tracheostomy care to veterans. It has developed tracheostomy and laryngectomy manuals as a patient discharge education resource and secured mannequins for patients, patients’ families, and nurses to practice suctioning and tracheostomy care skills. The committee is also working on creating hospital policies for tracheostomy and laryngectomy care, as well as rolling out an educational blitz for the nurses who are new to the inpatient units. Working as an interdisciplinary team highlights the strengths of each member, breaks down silos and improves overall patient outcomes.
COMMUNITY OUTREACH

Duke Hearing Center

Duke Hearing Center led a number of community education and engagement events in 2018, including sponsoring a table at the 2018 Camp Woodbine event.

Camp Woodbine is a free, one-day event designed as a retreat for hearing impaired children and their families. The theme this year was “Olympiad.” To learn more, visit www.campwoodbine.com.

Duke Hearing also sponsored and participated in the 2018 annual Walk 4 Hearing in Cary, North Carolina. This event supports the Hearing Loss Association of America and raises money for national and local programs that provide services to people with hearing loss.

Duke Audiology teamed up with Durham School of the Arts and approximately 40 high school students who are planning careers in music, a profession which increases the risk of developing noise-induced hearing loss. Duke Audiology provided hearing loss prevention education, equipment, and strategies that will help preserve life-long hearing.

Duke Voice Care Center

Duke Voice Care Center hosted their 12th Annual World Voice Day Celebration April 13–14 at the Hayti Heritage Center. The event featured interactive learning sessions on vocal health, a voice science fair, and a full-length Soul Ingredients® singing workshop led by Dr. Trineice Robinson-Martin, 2018 honoree of DVCC’s Patrick D. Kenan Award for Vocal Health and Wellness.

Other community engagement activities by DVCC included events with the Duke Heart Center and the PRMO Health, Wellness and Benefits Fair; Vocal Health for Singers and Singing Teachers presentations for the Raleigh Boychoir, Campbell University, the University of North Carolina, and the NC chapter of the American Choral Directors Association; workshops for women in business and women in leadership; and a new initiative in vocal wellness for aging populations.

DVCC will host their 13th Annual World Voice Day Celebration, Mindful Voice, April 6, 2019 at the Renaissance Raleigh Hotel, featuring 2019 Patrick D. Kenan Award recipient Mark Moliterno, an opera singer, voice teacher, and yoga teacher.

Mark is the founder of YOGAVOICE®, a unique pedagogical program which combines several traditions of yoga philosophy and practice with bel canto voice techniques to develop authenticity and wellness in the art of singing and personal communication. The event will also feature sessions on voice science, vocal health, mindfulness and meditation. For more information on World Voice Day 2019, visit https://mindfulvoice.bpt.me/

Mark Moliterno, founder of YOGAVOICE® will be featured at World Voice Day 2019 on April 6.
Speech Pathology

Duke Speech Pathology provided community outreach on a wide range of topics, including aphasia (with the Triangle Aphasia Project), “Maximizing Communication through Accent Modification” for Asian Business Leaders Month for a global company, and organizing donations for TROSA and the Ronald McDonald House.

They also provided presentations introducing young people to the field of speech pathology at the elementary and high school levels. Movement disorders were a particular area of focus for Speech Pathology events this year, including leading the Loud and Proud Speech and Communication Group for Parkinson’s Disease each month in collaboration with Duke Arts and Health, a program designed for people (and their caregivers) with Parkinson’s disease.

Speech Pathologists Meredith Nye, Kaylea Nicholson, and Katie Broadwell showed support for their patients with Parkinson’s Disease (PD) by walking at NC Moving Day, an event to benefit the Parkinson’s Foundation.

PD was also the focus of a presentation on speech, swallowing, and communication changes at both a young onset PD support group as well as another local PD support group.

Additional education events targeted ALS and Huntington’s Disease. Katie Loebner has actively supported the Duke community through her organization of the monthly hospital-wide moment of silence. This program is an intentional gathering to acknowledge that troubling events, whether personal or global, impact us.
Areas for Quality Improvement for Airway Dilation in Children: NSQIP-Pediatric 30-Day Outcomes.

Assessing Effects of Pressure on Tumor and Normal Tissue Physiology Using an Automated Self-Calibrated, Pressure-Sensing Probe for Diffuse Reflectance Spectroscopy.

Associations Between Expression Levels of Nucleotide Excision Repair Proteins in Lymphoblastoid Cells and Risk of Squamous Cell Carcinoma of the Head And Neck.

Balloon Catheter Dilation of the Sinuses: A 2011-2014 MarketScan Analysis.

Chronic Ear Disease.

Correlation Between Sinus and Lung Cultures in Lung Transplant Patients with Cystic Fibrosis.

Hearing Loss and Psychiatric Disorders: A Review.

Early Childhood Undernutrition Increases Risk of Hearing Loss in Young Adulthood in Rural Nepal.

Effects of a Caregiver-Inclusive Assistive Technology Intervention: A Randomized Controlled Trial.

Home-Based Tele-Rehabilitation Presents Comparable and Positive Impact on Self-Reported Functional Outcomes as Center-Based Rehabilitation: Singapore Tele-Technology Aided Rehabilitation in Stroke (Stars) Trial.

International Assessment of Inter- and Intrarater Reliability of the International Frontal Sinus Anatomy Classification System.
Longitudinal Evaluation of Quality of Life in Laryngeal Cancer Patients Treated with Surgery.

Noninvasive Optical Spectroscopy for Identification of Non-Melanoma Skin Cancer: Pilot Study.


Osseointegrated Implants for Auricular Prostheses: An Alternative to Autologous Repair.

Otolaryngologist Adherence to the AAO-HNSF Allergic Rhinitis Clinical Practice Guideline.

Otorhinolaryngology and Diving—Part 1: Otorhinolaryngological Hazards Related to Compressed Gas Scuba Diving: A Review.

Otorhinolaryngology and Diving—Part 2: Otorhinolaryngological Fitness for Compressed Gas Scuba Diving: A Review.

Parents’ Knowledge and Education of Retinopathy of Prematurity in Four California Neonatal Intensive Care Units.

Patterns of Migraine Disease in Otolaryngology: A CHEER Network Study.

Pharmacologic Management of Voice Disorders by General Medicine Providers and Otolaryngologists.

Rapid Nanophotonics Assay for Head and Neck Cancer Diagnosis.
The 5th Annual Duke–MUSC resident temporal bone dissection course was held on December 7–8, 2018 and directed by Calhoun D. Cunningham, MD. This year, in addition to residents from the Medical University of South Carolina (MUSC) the division also hosted residents from Virginia Commonwealth University. Dr. Ted Meyer, MD, from the MUSC was guest faculty. The two-day course focused on temporal bone anatomy, hearing loss and chronic otitis media with hands on training in our temporal bone dissection lab.