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the scope

Vol. 20 No. 2 | Fall 2019

MUSC Department of Otolaryngology | Head & Neck Surgery

For pediatric health care at MUSC, 2019 continues to be a year like no other.
(page 8)

BEST HOSPITALS
U.S.News & WORLD REPORT
NATIONAL
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2019-20

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Department of Otolaryngology
- Head & Neck Surgery

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Cover illustration by Elizabeth Northcut Williams

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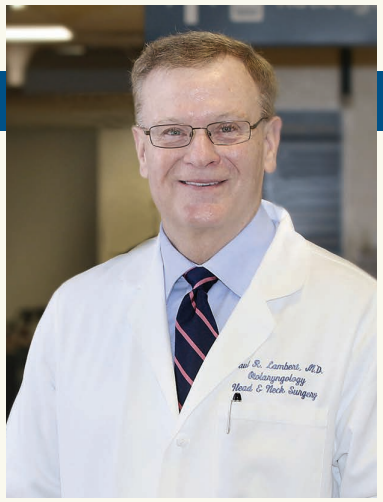


Chairman's Corner

There is a buzz in the air, and the momentum is high on the MUSC campus as we are nearing the opening of the new MUSC Shawn Jenkins Children's Hospital. Our new 625,000 square foot facility will transform the skyline of Charleston.

This state-of-the-art Children's Hospital, which opens in the Fall, will include 250 licensed beds, 82 are NICU beds, and 57 are PICU beds. It's hard to mention the new children's hospital without also talking about our own David White. Dr. White has been named Surgeon in Chief for MUSC Children's Health, an honor we all hold in high regard.

But it isn't just the opening of the new Children's Hospital that has everyone talking. I wanted to share with you some of the other news around MUSC.

- In April, we opened the new MUSC Children's Health R. Keith Summey Medical Pavilion. This new ambulatory care center in North Charleston includes a comprehensive team of pediatric trained physicians, nurses and staff with more than 27 pediatric specialties in one location. The facility offers comprehensive specialty clinics, outpatient surgery, diagnostic imaging, infusion procedures, and after hours care.
- In June, U.S. News & World Report, announced that the MUSC Children's Heart Network broke into the top 10 rankings of the Best Hospitals for Pediatric Cardiology and Heart Surgery. The comprehensive cardiac program at MUSC Children's Heart Center has consistently been named one of the top pediatric heart centers in the country by U.S. News & World Report.
- MUSC Children's Hospital is the only such institute in South Carolina to be ranked as one of America's Best Children's Hospitals.
- Research funding, the lifeblood of many of the advances in medicine, is at an all-time high. The Medical University of South Carolina is the premier biomedical research institution in South Carolina, with a record of more than $276 million in research funding in Fiscal Year 2018.

It's no wonder the buzz is happening around MUSC. We have much to be proud about!

Sincerely,

Paul R. Lambert, M.D.

Paul R. Lambert, M.D.
Professor and Chair
Department of Otolaryngology - Head & Neck Surgery

Continuing Education

The Charleston Pharyngoesophageal Manometry Training Program

This inaugural 1-1/2 day course was held January 18 - 19, 2019 at the MUSC East Cooper Medical Pavilion directed by **Ashli K. O'Rourke, M.D.** The keynote speaker was **Gregory N. Postma, M.D.** of the Medical College of Georgia. It was designed for speech language pathologists, laryngologists, and otolaryngologists and consisted of didactic sessions, hands on training experiences and real patient case examples to expand the participant's understanding of pharyngoesophageal manometry. Attendees came from 14 states across the US and one from the United Arab Emirates! Stay tuned for the info on our January 10-11, 2020 conference.

The Charleston Pediatric ENT Update

The sixth annual conference, directed by **David R. White, M.D.** was held February 9, 2019 at the Courtyard Marriott Historic District. This comprehensive full-day course designed for pediatricians, family practitioners, and otolaryngologists provided up-to-date guidelines to implement into daily practice, promote quality and efficient care, and tackle challenging ENT diagnoses with confidence. The keynote speaker was **Jeremy D. Meier, M.D.**, of the University of Utah. Participants came from eight states.

The ABCs of Maxillofacial Prosthodontics Medical and Dental Billing

This one day course directed by **Betsy K. Davis, D.M.D., MS** was designed for dentists, prosthodontists, oral/maxillofacial radiologists and maxillofacial prosthodontists to review medical and dental billing for medically necessary dental treatment including: general dentistry, prosthodontics, radiology (including cone beam technology) and maxillofacial prosthodontics. The hands-on afternoon session included the patient experience from the first visit all the way through treatment with emphasis on medical form completion and discussion on the role of the clearing house.

Southern States Rhinology Course

The three day course was held April 11-13, 2019 at the Kiawah Island Resort and on the MUSC campus. It provided a comprehensive update on the medical and surgical practices of rhinology for practicing rhinologists and sinus surgeons. Over 40 participants from 13 states came for the course that included a hands-on dissection laboratory, featuring state-of-the-art endoscopic instrumentation, video, and image guidance systems. Lab Director was MUSC's **Rodney J. Schlosser, M.D.** We hope you will join us for our next meeting on April 29 - May 2, 2020.

The 18th Temporal Bone Dissection Course

This two-day course was held on April 26-27, 2019 on the MUSC campus, directed by **Ted A. Meyer, M.D., Ph.D.** The course was designed for practicing otolaryngologists, focused on procedures for chronic ear disease and included hands-on training in our temporal bone dissection lab. Distinguished guest speaker was **George Alexiades, M.D,, FACS.**, Director Cochlear Implant Center, Weill Cornell Medical College.

The 19th Annual Charleston Magnolia Conference

Our distinguished guest speakers for the conference held May 31 - June 1, 2019 were **Patrick J. Antonelli, M.D.**, University of Florida, Gainesville, FL, **Gregory W. Randolph, M.D., FACS**, Harvard Medical School and Massachusetts Eye and Ear Infirmary, Boston, MA, and **David Chi, M.D.**,University of Pittsburgh School of Medicine, Pittsburgh, PA. Participants from 14 states attended the presentations and round table discussions covering the breadth of our specialty directed by **Paul R. Lambert, M.D**. We had ideal weather to enjoy historic Charleston, the beaches, golf, and the Spoleto Festival USA. Next year our course will be May 29-30, a great time to visit Charleston!

Please see upcoming conferences on page 28.

Where are they now?

MUSC Otolaryngology-Head & Neck Surgery Fellow Alumni

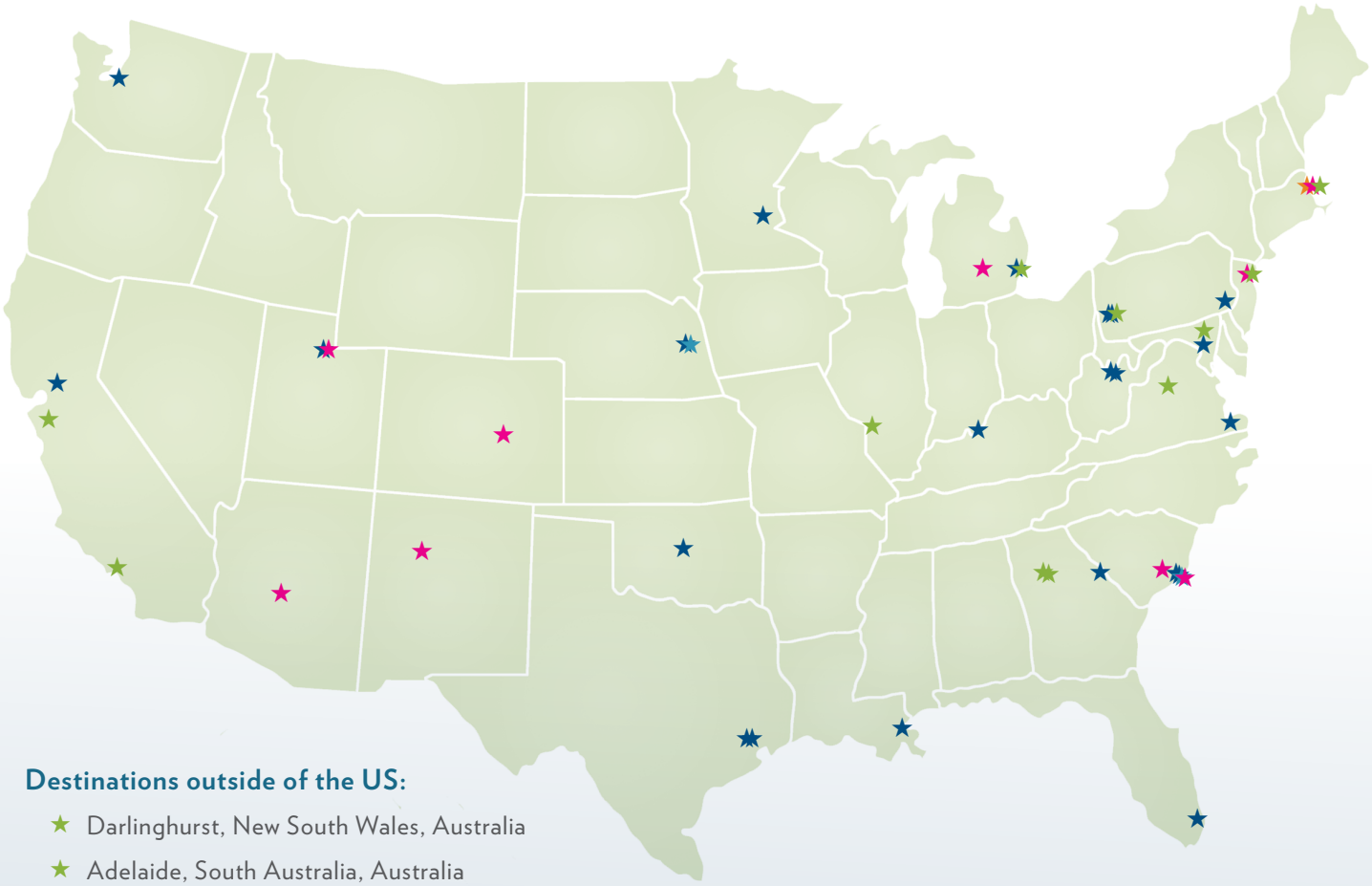
MUSC offers otolaryngology fellowships in five subspecialties: Head & Neck Oncology and Microvascular Reconstruction, Rhinology and Endoscopic Sinus/Skull Base Surgery, Complex Pediatric Otolaryngology, Neurotolgy, and Facial Plastic and Reconstructive Surgery. Many have continued on at academic hospitals across the US and internationally. We are extremely proud of each and every one.

Facial Plastic & Reconstructive Surgery

Fellow	Year	Hospital	City, State
Alexander P. Marston, M.D.	2019	Tufts University School of Medicine	Boston, MA

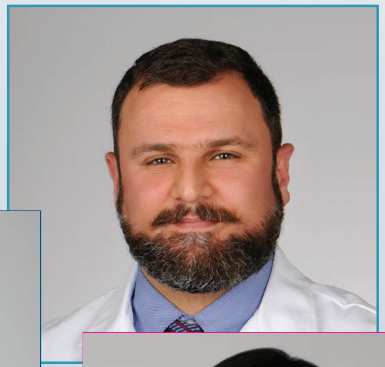
Head & Neck Oncology and Microvascular Reconstruction Surgery

Fellow	Year	Hospital	City, State
Angela D. Haskins, M.D.	2019	Baylor College of Medicine	Houston, TX
Mark W. Kubik, M.D.	2019	University of Pittsburgh Medical Center	Pittsburgh, PA
W. Greer Albergotti, M.D.	2018	Medical College of Georgia	Augusta, GA
Robert M. Brody, M.D.	2018	Hospitals of the University of Pennsylvania	Penn Valley, PA
Evan M. Graboyes, M.D.	2017	Medical University of South Carolina	Charleston, SC
Suheal R. Momin, M.D.	2017	Henry Ford Hospital	Detroit, MI
Sobia Khaja, M.D.	2016	University of Minnesota	Minneapolis, MN
Elizabeth A. Nicolli, M.D.	2016	University of Miami Miller School of Medicine	Miami, FL
Rusha Patel, M.D.	2015	West Virginia University Health Sciences Ctr	Morgantown, WV
Shaum Sridharan, M.D.	2015	University of Pittsburgh Medical Center	Pittsburgh, PA
Jeffery Houlton, M.D.	2014	University of Washington	Seattle, WA
Paul Tennant, M.D.	2014	University of Louisville	Louisville, KY
Arnaud Bewley, M.D.	2013	University of California-Davis	Davis, CA
Mayuri Rajapurkar, M.D.	2013	Aster DM Healthcare Limited	Kerala, India
Akash Anand, M.D.	2012	GNO Snoring and Sinus	Metairie, LA
Trinita Cannon, M.D.	2011	University of Oklahoma Health Sciences Ctr	Oklahoma City, OK
Wayne Cardoni, D.O.	2011	National Naval Medical Center	Bethesda, MD
Tanya Fancy, M.D.	2010	West Virginia University Health Sciences Ctr	Morgantown, WV
Nadia G. Mohyuddin, M.D.	2009	Houston Methodist	Houston, TX
Luke O. Buchmann, M.D.	2008	University of Utah	Salt Lake City, UT
Oleg N. Militsakh, M.D.	2007	University of Nebraska Medical Center	Omaha, NE
Allen O. Mitchell, M.D.	2006	Naval Medical Center	Portsmouth, VA
Joshua D. Hornig, M.D.	2005	Medical University of South Carolina	Charleston, SC



Destinations outside of the US:

- Darlinghurst, New South Wales, Australia
- Adelaide, South Australia, Australia
- Bramton, Ontario, Canada
- Kerala, India
- Cork, Ireland
- Dublin, Ireland



From MUSC Fellow to MUSC Faculty

(clockwise)

- Joshua D. Hornig, M.D., FRCS(C)
- Habib G. Rizk, M.D., MSc
- Evan M. Graboyes, M.D.
- Phayvanh P. Pecha, M.D.

Fellow Alumni (continued)

Neurotology

Fellow	Year	Hospital	City, State
Jonathan L. Hatch, M.D.	2018	University of Nebraska College of Medicine	Omaha, NE
Habib G. Rizk, M.D., MSc	2015	Medical University of South Carolina	Charleston, SC
Stephen Kieran, M.D., PhD	2013	University College Dublin	Dublin, Ireland

Complex Pediatric Otolaryngology

Fellow	Year	Hospital	City, State
Phayvanh Pecha, M.D.	2019	Medical University of South Carolina	Charleston, SC
Alexander P. Marston, M.D.	2018	Tufts University School of Medicine	Boston, MA
Sharon H. Gnagi, M.D.	2017	Phoenix Children's Hospital	Phoenix, AZ
Jason D. Chesney, D.O.	2016	Mid Michigan ENT	Okemos, MI
Karen Hawley, M.D	2015	University of New Mexico	Albuquerque, NM
David Gudis, M.D.	2014	Columbia University	Randolph, NJ
Allison Dobbie, M.D.	2013	Children's Hospital Colorado	Colorado Springs, CO
George Harris, M.D.	2012	Summerville Pediatric Specialist	Summerville, SC
Jeremy Meier, M.D.	2011	University of Utah	Salt Lake City, UT

Rhinology and Endoscopic Sinus/Skull Base Surgery

Fellow	Year	Hospital	City, State
Fredrick Yoo, M.D.	2019	Henry Ford Hospital	Detroit, MI
Nicholas R. Rowan, M.D.	2018	Johns Hopkins	Baltimore, MD
Jose L. Mattos. M.D.	2017	University of Virginia	Charlottesville, VA
Arash Shahangian, M.D.	2016	Kaiser Permanente	Stanford, CA
David Gudis, M.D.	2015	Columbia University	Randolph, NJ
Anastasios Karnezis, M.D.	2015	Kaiser Permanente	Laguna Niguel, CA
Sarfaraz Banglawla, M.D.	2014	University of Toronto	Brampton, ON, Canada
Oswaldo Henriquez, M.D.	2013	Emory University	Atlanta, GA
Alkis Psaltis, M.D., PhD	2012	Adelaide University	Adelaide, SA, Australia
Eric W. Wang, M.D.	2011	University of Pittsburgh Medical Center	Pittsburgh, PA
Benjamin Bleier, M.D.	2010	Mass Eye & Ear Infirmary-Harvard	Boston, MA
Indranil Debnath, M.D.	2009	ENT & Sleep Medicine Associates, LLC	Shiloh, IL
Richard Harvey, M.D.	2008	St. Vincents Hospital	Darlinghurst NSW, Australia
Patrick Sheahan, M.D.	2008	South Infirmary Victoria University Hospital	Cork, Ireland
Sara Wise, M.D.	2007	Emory University	Atlanta, GA

Our Fellowship Programs

Facial Plastic & Reconstructive Surgery (FPRS)

This is a one-year non-accredited fellowship under the mentorship of **Krishna G. Patel, M.D., Ph.D.** The fellow will also work with **Samuel L. Oyer, M.D., FACS,** and **Judith M. Skoner, M.D.** The program offers comprehensive training in the FPRS specialty including rhinoplasty, craniofacial, facial reanimation, facial trauma, and local reconstruction to prepare the fellow for practice as a subspecialty trained Facial Plastic & Reconstructive Surgeon. Fellows participate in the education of residents and medical students. The fellow receives graduated responsibility throughout the year, with an opportunity for increasing independence with advancing technical skill level and familiarity with the procedures.

Head and Neck Oncology and Microvascular Reconstruction

Under the direction of **Terry A. Day, M.D.**, this program provides the highest level of training in the management and surgical treatment of head and neck cancer. Additional clinical faculty include **Evan M. Graboyes, M.D., FACS**, **Joshua D. Hornig, M.D., FACS(C)**, **Eric J. Lentsch, M.D., FACS**, and **David M. Neskey, M.D., MSCR, FACS**. Each Fellow enters as Clinical Instructor level faculty and has appointments at academic and private hospitals while performing approximately 280 major cases per year as primary surgeon. The MUSC Head and Neck Tumor Center is one of the largest programs in the US devoted to the care of the head and neck cancer patient. The program is based within the Wellin Head and Neck Clinic and partnered with MUSC Hollings Cancer Center, the only NCI-designated cancer center in South Carolina.

Neurotology

In 2018, the Neurotology Fellowship was accredited by the ACGME under the directorship of **Ted A. Meyer, M.D., Ph.D.** Additional clinical faculty include **Paul R. Lambert, M.D.**, **Ted R. McRackan, M.D., MSCR**, and **Habib G. Rizk, M.D., MSc.** This two-year program accepts one fellow every two years. The fellowship provides a comprehensive experience in these areas of otology and neurotology: audiological testing, management of patients with hearing loss, vestibular testing, management of patients with vestibular disorders, facial nerve disorders, tumors of the cerebellopontine angle and other lateral skull base tumors, temporal bone malignancies, and the management of CSF otorrhea, among others.

Complex Pediatric Otolaryngology

This one-year fellowship was established in 2010 under the direction of **David R. White, M.D.**, **Christopher M. Discolo, M.D., MSCR**, **Clarice S. Clemmens, M.D.**, and **Phayvanh Pecha, M.D.** The fellowship provides a comprehensive experience in pediatric otolaryngology with a wide scope of training including complex pediatric airway, otology, head and neck, sinus, and craniofacial procedures. This is a transitional role from resident to faculty member. The pediatric otolaryngology fellow will act as a junior faculty member for routine patient management and procedures. Attending supervision is increased for complicated and advanced procedures, with increasing fellow responsibility as experience and technical skill level dictates. Fellows directly supervise and instruct all levels of residents in appropriate cases as described above in order to maximize resident education and hands on experience.

Rhinology and Endoscopic Sinus/Skull Base Surgery

The Department has offered a one-year fellowship since 2006. Under the mentorship of **Rodney J. Schlosser, M.D.** and **Zachary M. Soler, M.D., MSc**. the program offers comprehensive training in all aspects of medical and surgical treatment of primary and revision inflammatory sinusitis, anterior and central skull base neoplasms, orbital and optic nerve pathology, and otolaryngic allergy, and prepares the fellow for practice as a tertiary rhinologist. Fellows have graduated responsibility, both in the OR and in clinic, with the opportunity for increasing independence throughout the year.

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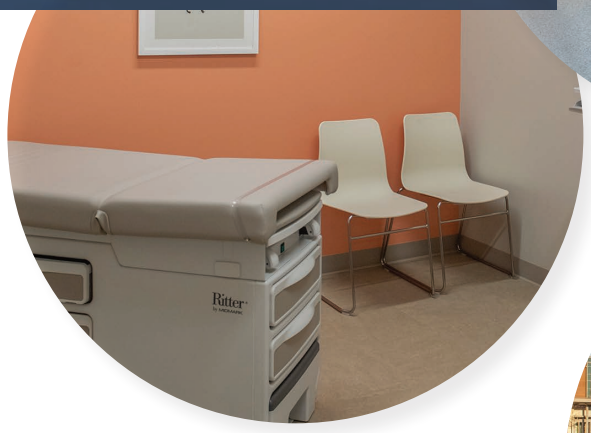
To learn more about our fellowhip programs please visit our website at musc.edu/ent

2019 - A Big Year for Children's Health at MUSC

David R. White, M.D.

In April, we opened the MUSC Children's Health R. Keith Summey Medical Pavilion in North Charleston, a 57 million-dollar, 100,000 square foot, state of the art outpatient facility that offers 27 pediatric specialties, radiology services, outpatient surgery, and after-hours care under one roof. The building is part of a plan to increase accessibility for children with medical needs by offering comprehensive outpatient services centrally located in the Charleston metro area, just a short distance from Interstates 26 and 526. The new facility was built to replace Rutledge Tower as the center for outpatient children's health care at MUSC, and the migration of so many practices was a major logistical undertaking for the Children's and Women's team. The Summey Medical Pavilion has been a great success, exceeding expected numbers of outpatient visits to date. The facility includes a purpose-built pediatric otolaryngology outpatient unit with integrated pediatric audiology space. Otolaryngology has been a major driver for the outpatient surgical facility as well, accounting for a third of the procedures done in the new facility.

While successful opening of such a large facility would be the featured achievement in most years, it is only the first step in six months of physical expansion and reorganization for MUSC Children's Healthcare. Later this year, MUSC Children's Hospital will relocate from its current location to the new eleven story, 600,000 square foot MUSC Shawn Jenkins Children's Hospital on the corner of Calhoun Street and Courtenay Drive. The building will feature a twenty percent increase in inpatient beds, eight pediatric operating rooms, a substantial increase in space for patients



The new R. Keith Summey Medical Pavilion, a state of the art outpatient facility in North Charleston, offers 27 pediatric specialties, radiology services, outpatient surgery, and after-hours care under one roof.

MUSC Children's Health...continued.

David R. White, M.D., is a Professor in the Department of Otolaryngology - Head & Neck Surgery and the Director of Pediatric Otolaryngology at the Medical University of South Carolina. He joined the department in 2005 after completing a fellowship in Pediatric Otolaryngology at Cincinnati Children's Hospital Medical Center.

Dr. White is a native of Charleston, S.C., and graduated from Davidson College in 1994. He then received his M.D. from MUSC and completed his residency in Otolaryngology - Head & Neck Surgery at the University of North Carolina. In 2017, he was appointed MUSC Children's Health Surgeon-in-Chief.

Dr. White's practice focuses entirely on the care of the children with ear, nose, and throat problems. He has authored over 90 articles and chapters in medical journals and textbooks and has won several research awards at national otolaryngology meetings. Dr. White has particular expertise in the treatment of children with ear/hearing problems, speech and swallowing disorders, and airway problems.

He is a member of the Airway and Aspiration Center for Children, Craniofacial Anomalies and Cleft Palate Center, the Velopharyngeal Insufficiency and Speech Team, Vascular Anomalies Program, and the Cochlear Implant Center at the Medical University of South Carolina.

and families, an expanded Labor and Delivery unit, and expansion of the Advanced Fetal Care Center. The facility will allow MUSC to continue to be the state's leader in children's healthcare.

With all of the expansion of MUSC Children's Healthcare, the Pediatric Otolaryngology division has already seen a substantial increase in volume of visits and surgical cases. To keep up with increased clinical demand, the division has expanded as well. **Phayvanh Pecha, M.D.** joined our group in summer of 2019. She completed medical school at the University of Minnesota, residency at the University of Utah, and her pediatric otolaryngology fellowship here at MUSC. She has a particular interest in healthcare disparities and will pursue her Masters in Public Health during her first years as an Assistant Professor in our division. **Helen Kulseth, PA-C**, joined the division in October 2018, to help with clinical outpatient growth at the Summey Medical Pavilion where she sees patients alongside all of our pediatric otolaryngologists. **Lydia Redden, CPNP-AC**, joined the team in July 2019 to serve as our primary inpatient advanced practice provider. She will take over the highly successful pediatric tracheostomy care program which was nurtured by **Carissa Howle, CPNP**, who relocated to Davidson, NC, in early 2019.

Our division maintains an educational focus on both routine and complex pediatric otolaryngology through the training of medical students, residents and fellows. Along with all of the excitement around the new children's hospital, the summer of 2019 is also a landmark time for pediatric otolaryngology education at MUSC. July marks the beginning of the 10th year of our pediatric otolaryngology fellowship as **Jaye Bea Downs, D.O.** joins our team. Previous fellows practice throughout the US from Boston to New York to South Carolina, Michigan, Utah, Colorado, New Mexico, and Arizona. ❑

Pain Control After Tonsillectomy

Clarice S. Clemmens, M.D.

Tonsillectomy is a common surgical procedure in pediatric patients, with approximately 530,000 cases performed annually.[1] Pain following tonsillectomy is common, and inadequate pain management places children at risk for pain-related dehydration and hospital readmission. Tonsillectomy is also associated with potentially life-threatening hemorrhage, thus the need to develop pain-control regimens with adequate analgesia without significant increased bleeding risk is critical. These regimens often include acetaminophen, ibuprofen, and/or opioids, with ongoing efforts being made to continue to improve our approach.

In 2010, the American Academy of Otolaryngology - Head and Neck Surgery (AAO-HNS) published Clinical Practice Guidelines (CPG) for tonsillectomy. These guidelines were further updated in 2019[2]. In the CPG, pain control with acetaminophen and ibuprofen is recommended. Ibuprofen is a nonsteroidal anti-inflammatory drug (NSAID) which blocks prostaglandin induced inflammation without inducing respiratory depression, but may also block platelet aggregation and thereby increase the risk for bleeding. The CPG supporting the use of ibuprofen after tonsillectomy sites a 2013 systematic review and meta-analysis[3], a 2013 Cochran Review[4], and two large retrospective reviews from 2016[5] and 2017[6], all of which note no significant increased risk for bleeding with the use of ibuprofen after tonsillectomy. More recent studies after the widespread adoption of ibuprofen have called into question the safety of ibuprofen after tonsillectomy. In a recent multi-center, randomized double-blind noninferiority trial, Dierks and colleagues failed to show that ibuprofen is not associated with increased bleeding risk[7]. An additional meta-analysis published in June of 2019 demonstrated further concerning evidence of possible increased bleeding risk with ibuprofen, with an odds ratio of 1.38, 95 percent confidence interval 1.11 – 1.72[8].

Further complicating pain control regimens is the recent rise in opioid overuse and abuse. In 2017, the U.S. Department of Health and Human Services declared this epidemic a public health emergency. This phenomenon adds a layer of complexity to postoperative pain management after tonsillectomy, necessitating that otolaryngologists not only prescribe safe and effective pain-control regimens, but also avoid contributing to opioid over-prescription.

In an effort to combat overprescribing at MUSC, a team of otolaryngologists and general surgeons examined prescribing patterns amongst the most commonly performed surgical procedures at MUSC. In two recently published studies, the team found significant variation in opioid prescribing patterns as well as over-prescription of

Clarice S. Clemmens, M.D., joined the Department of Otolaryngology-Head and Neck Surgery and MUSC Children's Hospital in October 2015, after completing a fellowship in pediatric otolaryngology at the Children's Hospital of Philadelphia.

Dr. Clemmens grew up in Idaho, and graduated summa cum laude from Clemson University where she played varsity soccer. In 2009, she graduated from Medical School at the Medical University of South Carolina, and then completed a residency in otolaryngology at the University of Pennsylvania.

Dr. Clemmens received her board certification from the American Board of Otolaryngology in 2015.

Dr. Clemmens limits her clinical practice to the care of children with all types of ear, nose, and throat problems, with a particular emphasis on neonatal airway disorders and thyroid disorders. She has authored multiple papers and book chapters and has given presentations at both the regional and national levels.

opioids after tonsillectomy and hernia repair[9]. In an attempt to combat this, education was provided for all prescribing providers. Following this education, a significant reduction in variability and over-prescription was noted after hernia repair, with modest reduction noted after tonsillectomy[9]. These studies highlight the need for change, and ongoing efforts are being made to improve our prescribing patterns.

In addition to acetaminophen, ibuprofen, and opioids, other pain control measures have been suggested. Unfortunately, the evidence is lacking to support many of these strategies. It has been demonstrated that a one-time intraoperative dose of steroids decreases postoperative nausea and vomiting, and the AAO CPG recommends that all patients receive this intervention. The role of steroids in the postoperative period is less clear, and while anecdotal evidence would suggest that postoperative steroids may improve pain and edema, the evidence for this is lacking. In order to further evaluate this question, our team of otolaryngologists at MUSC is currently enrolling patients in a single-blinded, randomized control trial to assess the effect of postoperative use of steroids on pain control and opioid consumption.

Pain control after tonsillectomy continues to be a debated topic, with the primary goals being adequate analgesia without significant respiratory depression or over-prescription of opioids. At MUSC, we will continue to evaluate our practices closely, and through ongoing research, we will continue to provide the best evidence-based care for our pediatric patients. ❑

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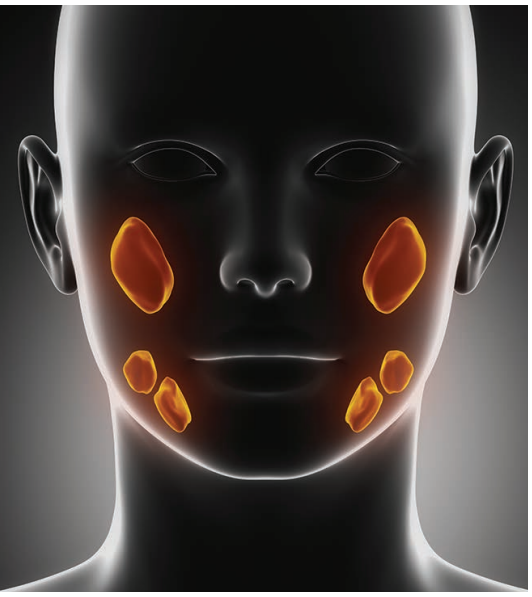


Salivary Endoscopy: A Minimally Invasive Approach to Salivary Gland Disease

Eric J. Lentsch, M.D., FACS

The Problem

Sialadenitis, or recurrent salivary gland infection associated with pain and swelling of the major salivary glands, is a common disease. One of the most frequent causes of sialadenitis is obstruction in the salivary ductal system. Salivary calculi account for 60 to 70 percent of salivary duct obstruction. Additional causes of obstruction to salivary flow include strictures in 20 to 25 percent, inflammation (five to 10 percent) and other rare pathologies such as foreign bodies (one percent).

Conservative treatment is the first line of therapy that includes treatment with antibiotics, salivary stimulants or sialogogues, and anti-inflammatory agents. However, conservative therapy fails in up to 40 percent of people with sialadenitis; and in the past, the recommended treatment for medically refractory sialadenitis was excision of the involved salivary gland. However, surgical excision of the gland carries numerous risks including paresis or palsy of the facial nerve, lingual nerve, and hypoglossal nerve. Multiple other complications include Frey syndrome (gustatory sweating), sialoceles, salivary fistula, xerostomia, numbness, infection, and hemorrhage. Consequently, although surgical resection in experienced hands is safe, it's often not desired due to the associated surgical risk and external scar in the neck associated with it.

In the last decade a new, minimally invasive treatment for sialadenitis was developed - salivary endoscopy. In this procedure endoscopic visualization of major salivary gland ductal system is performed and endoscopic interventions to treat chronic sialadenitis with or without sialolithiasis are performed. Today, salivary endoscopy is regarded as an acceptable and often preferred diagnostic and treatment tool for chronic sialadenitis and non-neoplastic obstruction of the salivary ductal system.

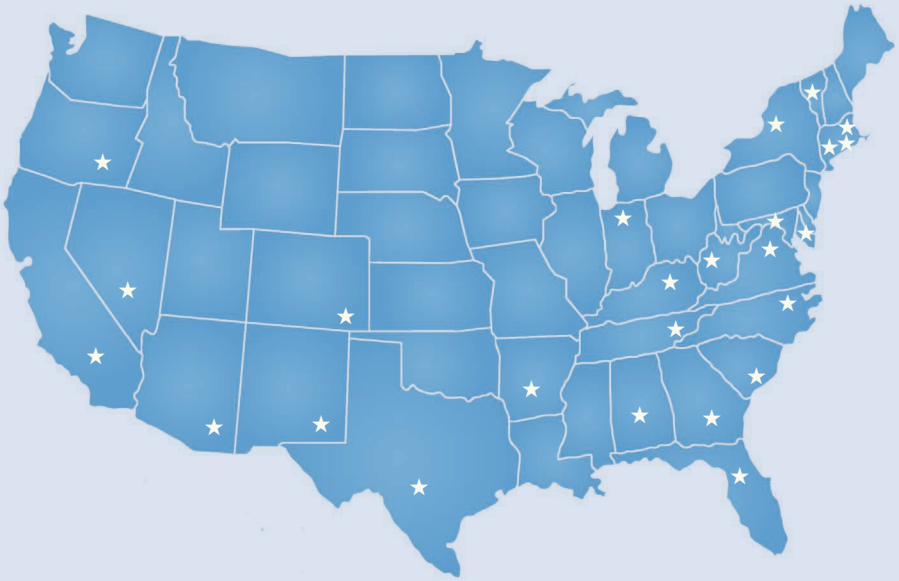
The Procedure

Salivary endoscopy involves placement of a small endoscope - usually 0.8 to 1.6mm in size - into the salivary duct, and can be done with patients under local or general anesthesia (see Figures). First, the papilla of the duct is dilated transorally with probes of increasing size. Then the endoscope is introduced into the duct so the anatomy can be visualized. This provides 360-degree visualization of the lumen from papilla to the actual gland. At this point

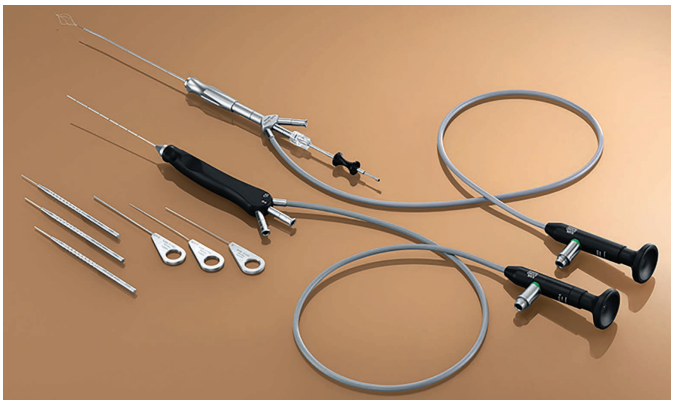
Salivary Endoscopy at MUSC

MUSC has been a leader in salivary endoscopy procedures and training since Dr. Boyd Gillespie brought the technique to Charleston in 2008 after training with world experts in Erlangen, Germany. In 2016 when he left MUSC to become Chairman of Otolaryngology-Head and Neck Surgery at University of Tennessee in Memphis, he passed the MUSC Salivary Program leadership to Dr. Eric Lentsch.

We have performed over 900 salivary endoscopy procedures at MUSC, and patients have come from across the nation — 25 different states. At this time, it remains one of the busiest endoscopic salivary gland programs in the United States.



treatment can be performed for any pathology found. For example, stenotic ducts can be dilated using a balloon dilator, biopsies can be taken of abnormal tissue, and stones up to five mm in size can be removed using a wire basket. Steroids can also be injected in cases of inflammatory sialadenitis. In cases of larger stones, a combined approach can be utilized in which endoscopic manipulation of the stone is done with transoral sialodochoplasty, to remove the stone with marsupialization. This provides markedly less risk of morbidity compared to an open approach.

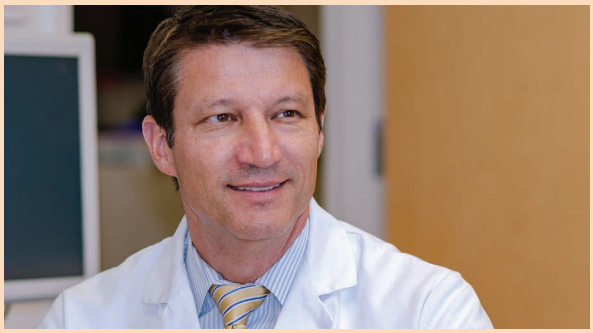


Results

With respect to diagnostic sialendoscopy, the success rate is reported to be as high as 98 percent. In the interventional setting, the success rate for stone removal is reported to be 80 to 90 percent - mainly dependent on the size and mobility of the stones. For ductal scars and stenoses, success is generally reported to be 75 to 85 percent. And for inflammatory diseases - such as Sjogren's, juvenile recurrent parotitis and radioiodine sialadenitis - the success rates are somewhat lower due to the chronicity and severity of the underlying diseases. However, across all disease processes, gland preservation is one of the major benefits of sialendoscopy and is also reported to be between 80 and 90 percent.

Conclusion

Sialendoscopy is a procedure that allows almost complete exploration of the salivary ductal system (main duct, secondary and tertiary branches). It can be performed in all ages, from children to the elderly; and is a low morbidity technique which is becoming the procedure of choice for non-neoplastic salivary diseases. It can allow the minimally invasive treatment of salivary stones, stenoses, and inflammatory disorders, and can help prevent salivary gland excision in the vast majority of patients. ❑



A native of New York City, **Eric J. Lentsch, M.D., FACS** moved to Louisville, Kentucky, early in childhood and spent most of his formative years there. He received a bachelor's degree in Zoology from the University of Kentucky and a medical degree from the University of Louisville in 1992.

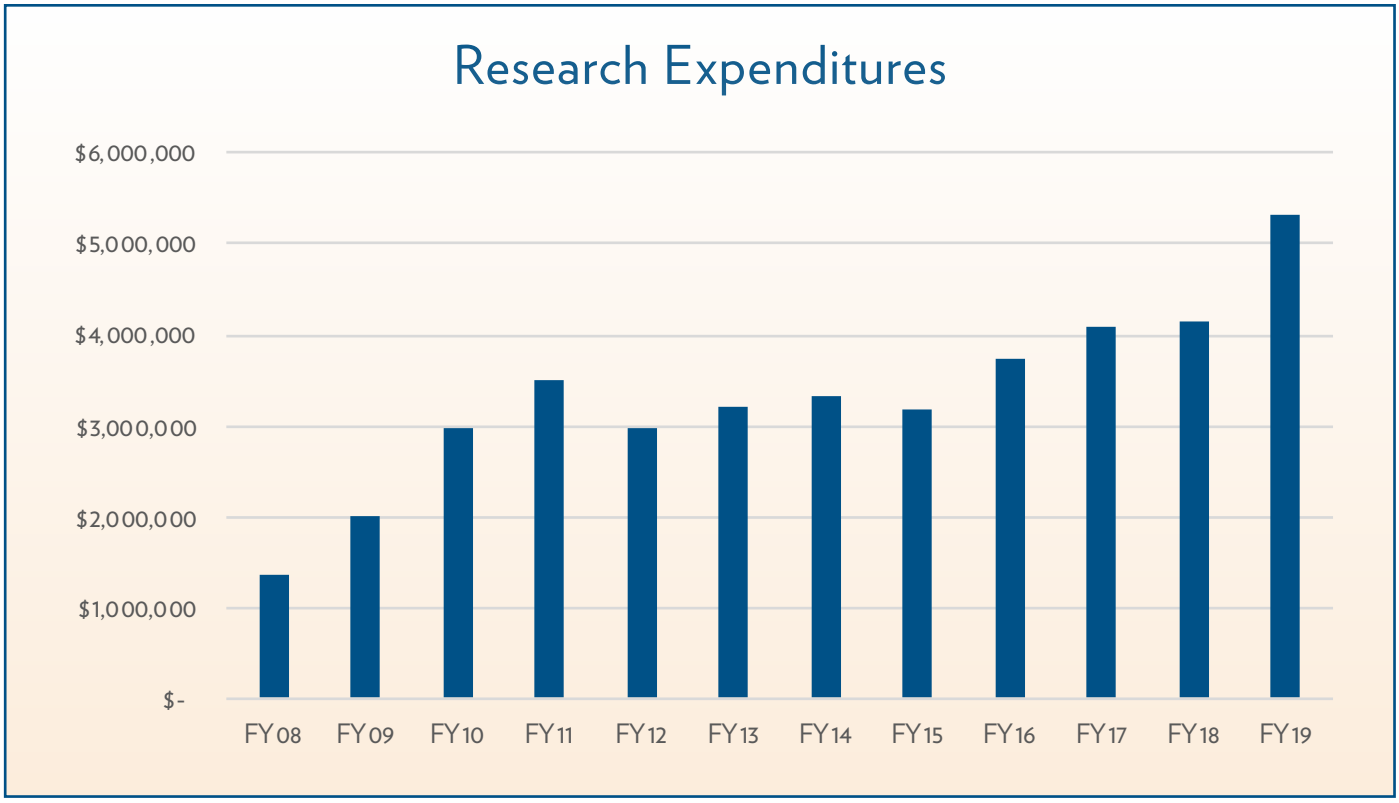
After completing a residency in Otolaryngology - Head and Neck Surgery at the University of Louisville, he served as a fellow in Head and Neck Surgery at the MD Anderson Cancer Center in Houston, Texas, from 1999 until 2001. In 2001, he returned to the University of Louisville as the Louisa Bumgardner Professor of Otolaryngologic Research within the ENT Division. He served as the director of research and received the Vincent J. Hyams Award for Excellence in Resident Education three times. In addition, he established and led the Multidisciplinary Head and Neck Cancer Clinic at the James Graham Brown Cancer Center.

In 2006, Dr. Lentsch moved to Charleston to join the MUSC Otolaryngology-HNS department.

Dr. Lentsch's clinical interests include head and neck oncology, general otolaryngology, endoscopic sinus surgery, salivary endoscopy, hypoglossal nerve stimulation surgery, and endocrine surgery using minimally invasive techniques for thyroid and parathyroid surgery. Dr. Lentsch has used a video-assisted technique for thyroidectomy since 2011 and currently has one of the largest series of patients who have undergone this technique in the United States.

Dr. Lentsch's research interests focus on prognostic factors related to head and neck and endocrine cancer. Using national databases, he has studied oral, laryngeal, oropharyngeal, and sino-nasal cancers, as well as thyroid and skin cancers. His efforts are made to improve prognosis and survival in these cancers.

MUSC Otolaryngology - Head & Neck Surgery Ranked #11 for NIH Grant Funding in 2018



Current NIH Research Grants

Judy R. Dubno, Ph.D. (as PI or MUSC PI)

Type: NIH/NIDCD P50 (Clinical Research Center)
Experimental and Clinical Studies of Presbyacusis
Total award: $13,913,045
Co-Program Director: Mark A. Eckert
PI of Project 3: Kelly C. Harris
PI of Project 4: Mark A. Eckert
PI of Core A and Core B: Judy R. Dubno
The Clinical Research Center generates new knowledge about the high-prevalence public health concern of age-related hearing loss (presbyacusis). Goals are to reduce its prevalence, slow its progression, and develop new prevention, diagnostic, and treatment strategies to improve communication and the quality of life of millions of older adults.

Type: NIH/NIDCD T32 (Institutional Training Grant)
Interdisciplinary Research Training in Otolaryngology and Communication Sciences
Total award: $1,914,250
This is integrated training program, based in the Department of Otolaryngology-Head and Neck Surgery, supports predoctoral, postdoctoral, and medical student research training in otolaryngology and communication health.

Type: NIH/NIDCD R21/R33
Addressing Barriers to Adult Hearing Healthcare
Total award: $2,453,366 (Duke); MUSC subcontract total award: $153,932
This project develops cost effective, accessible, and efficient methods of identifying and treating hearing impairment in older adults and evaluates the impact of factors that affect hearing health care access.

Type: NIH/NIDCD R01
Maximizing Speech Recognition Under Adverse Listening Conditions
Total award: $1,839,315 (USC); MUSC subcontract total award: $680,225
This project acoustically and perceptually defines how younger and older adults with normal and impaired hearing recognize unprocessed or spectrally shaped speech in the presence of temporally complex noise.

Drs. Rodney Schlosser and Zachary Soler

Type: NIH/NIDCD R21/R33
Efficient Estimation of Auditory Sensitivity and Cognitive Status using Spoken Digit Tests
Total award: $1,547,892 (Indiana University); MUSC subcontract total award: $250,981
This project expands the digits-in-noise National Hearing Test to other platforms and develops a family of tests of auditory sensitivity and related cognitive status that together measure functional hearing loss.

Mark A Eckert, Ph.D. (PI)

Type: NIH/NICHD R01
Multi-site Study of Dyslexia
Total award: $1,508,314
This project tests the hypothesis that structural cerebral asymmetries are atypical in people with dyslexia, examines genetic correlates of cerebral asymmetries, and establishes methods for providing brain structure metrics to data sharing contributors.

Evan M. Graboyes, M.D. (PI)

Type: NIH/NCI K08
Improving the Timeliness and Equity of Adjuvant Therapy Following Surgery for Head and Neck Cancer
Total Award: $1,332,745
The major goals of this project are to identify the barriers to equitable, timely postoperative radiation therapy (PORT) following head and neck cancer (HNC) surgery and evaluate the effects of patient navigation on delays starting PORT among African American and white HNC patients.

Kelly C. Harris, Ph.D. (PI)

Type: NIH/NIDCD R01
Neural Determinants of Sound Encoding in the Aging Ear and Brain
Total award: $1,868,750
This project uses complementary measures that have specific neural activity, microstructure and metabolic bases to help identify underlying neuropathologic determinates that contribute to speech recognition declines in older adults.

Type: NIH/NIDCD R01
Neural Determinates of Cortical Plasticity with Age and Hearing Loss
Total award: $2,026,301
This project uses electrophysiology and neural estimates of GABA and Glutamate to assess age and hearing loss effects on homeostatic and experience-driven plasticity within the central auditory system.

Jennifer K. Mulligan, Ph.D. (PI)

Type: NIH/NIAID R01
Role of Vitamin D Metabolism in CRS
Total award: 1,531,637
These studies will investigate the role of impaired metabolism of vitamin D3 by sinonasal epithelial cells and how it contributes to the inflammation associated with chronic rhinosinusitis with nasal polyps. These studies will also test the efficacy of intranasal vitamin D delivery in a murine model of chronic sinusitis.

NIH Funding (continued)

David M. Neskey, M.D., MSCR, FACS (PI)

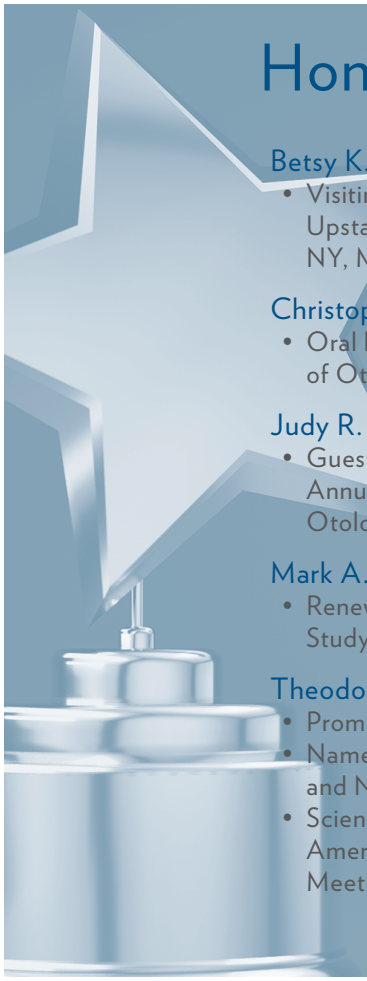
Type: NIH/NCI KO8
The Tumor Suppressor Capability of p53 is Dependent on Non-muscle Myosin IIA Function in Head and Neck Cancer.
Total Award: $421,000
The studies will validate the role of a key protein, non-muscle Myosin IIA, in the increased invasiveness of head and neck cancers harboring high-risk TP53 mutations, which ultimately could lead to precise therapies targeting these aggressive tumors and subsequently improving the survival of patients with head and neck cancer.

Ted R. McRackan, M.D., MSCR (PI)

Type: NIH/NIDCD K23
A New Quality-of-Life Instrument to Assess Functional Outcomes of Cochlear Implantation in Adults
Total award: $604,908
The goal of this project is to determine the impact of cochlear implantation on patient QOL through the application of our new, disease-specific CIQOL instrument and assess the relationships between CIQOL domains, functional outcome measures, and general health-related QOL

Zachary M. Soler, MD, MSc (Co-PI)

Type: NIH/NIDCD R01
Determinants of Olfactory Dysfunction in Chronic Rhinosinusitis
Total Award: $3,198,000
Olfactory dysfunction is a cardinal symptom of chronic rhinosinusitis, a disease which affects 12.5 percent of the adult population across all racial and ethnic groups. Previous research has documented olfactory deficit in 68 percent of patients with chronic rhinosinusitis and 20 percent with complete anosmia, suggesting that olfactory dysfunction affects over 25 million individuals in the United States with chronic rhinosinusitis. This investigation will help predict olfactory outcomes following treatments for chronic rhinosinusitis and gain insights into mechanisms of olfactory dysfunction in this population.



Honors & Awards

Betsy K. Davis, D.M.D.
- Visiting Professorship lectures, Suny Upstate University Hospital, Syracuse, NY, May 2019

Christopher M. Discolo, M.D., MSc
- Oral board examiner, American Board of Otolaryngology, April 2019

Judy R. Dubno, Ph.D.
- Guest of Honor and Lecturer, 152nd Annual Spring Program, American Otological Society

Mark A. Eckert, Ph.D.
- Renewal of NIH R01 grant: "Multi-site Study of Dyslexia"

Theodore R. McRackan, M.D., MSCR
- Promoted to Associate Professor
- Named Associate Editor of Audiology and Neurotology
- Scientific Program Committee 2020 American Neurotology Society Spring Meeting
- Scientific Program Committee 2020 American Cochlear Implant Alliance Annual Meeting

Ted A.Meyer, M.D., Ph.D.
- Promoted to Professor

Shaun M. Nguyen, M.D.
- Lift As You Climb Diversity Mentorship Award

Krishna G. Patel, M.D., Ph.D.
- MUSC John R. Raymond fellowship award, July 2019 to July 2020

Habib G. Rizk, M.D., MSc
- Chair of the Nomination Committee, American Balance Society
- Editorial Board Member Ear & Hearing Journal; Section Editor Otology and Vestibular Sciences, Ear & Hearing Journal
- Invited Panelist Northwell Unversity 3rd Vestibular Symposium, New York, November 2018

2018 Publications

In 2018, the MUSC Department of Otolaryngology - Head & Neck Surgery published 96 articles across 44 national/international medical journals.

Journal	#
American Journal of Rhinology & Allergy	4
Annals of Otology, Rhinology, & Laryngology	2
BMC Med Genomics	1
Cancer	1
Cleft Palate Craniofacial Journal	2
Clinical Gerontology	1
Clinics in Perinatol	2
CNS Spectrums	1
Communications in Statistics - Theory & Methods	1
Current Otorhinolaryngology Reports	1
Dysphagia	1
Ear & Hearing	2
eLife	1
Frontiers in Psychology	1
Global Change Biology	1
Head & Neck	5
Heart Rhythm	1
International Forum of Allergy & Rhinology	8
International Journal of Pediatrics	4
Journal of Acoustical Society of America	2
Journal of Clinical Sleep Medicine	1
Journal of Cystic Fibrosis	1
Journal of Pediatrics	2

Journal	#
Journal of Physiology	1
Journal of Speech, Languange, & Hearing Res	1
JAMA Otolaryngology-Head & Neck Surgery	4
JAMA Oncology	1
Journal of Neurophysiology	1
Journal of Rhinology & Allergy	1
Laryngoscope	11
Mucosal Immunology	1
Neuropsychologia	1
Oncotarget	1
Oral Oncology	1
Otolaryngology-Head and Neck Surgery	6
Otology & Neurotology	10
Pediatric Emergency Care	1
Plos One	2
Proceedings of the National Academy of Sciences	1
Respiratory Physiology & Neurobiology	1
Scientific Reports	1
Transplantation	1
Trends in Hearing	1
World J of Otorhinolaryngology - H&N Surgery	2
Total articles	**96**

Farewell Residents & Fellows

2019 Resident Graduates

Drs. Ryan Boener and Phong Le with Department Chair Dr. Paul Lambert

Ryan M. Boerner, M.D. leaves us to join Austin Ear Nose and Throat Clinic in Austin, Texas as a general otolaryngologist. Dr. Boerner was most well known as a tremendous surgeon and teacher. Ryan also never backed down from an athletic challenge, no matter how ridiculous, resulting in several breathtaking defeats. Persistent, no doubt. He published two papers as a resident. Ryan was awarded an ARO Travel Award in 2017, he received first place for his resident research presentation at the 2017 Charleston Magnolia Conference, and in 2019, he was named the Head and Neck Resident of the Year. We wish Dr. Boerner, his wife Jennifer, and their new son Hayden the best of luck in Texas.

Phong T. Le, M.D. leaves us to join Mid-Kansas Ear Nose & Throat Associates in Wichita, Kansas as a general otolaryngologist. Dr. Le was known for his teaching, leadership, calm demeanor, and love of fast cars. He published two papers as an MUSC resident. Phong received second place for his resident research presentation at the 2017 Charleston Magnolia Conference, and in 2019, he received a prestigious MUSC patient care award. We wish Dr. Le, his wife Teresa, and their daughter Emma all the best in Kansas.

The residents honored **David M. Neskey, M.D., MSCR, FACS**, with the annual resident teaching award. It is recognition for an individual who spends hours with residents in the lecture room, cadaver lab, and operating theater to make sure they leave MUSC with excellent training and skills.

2019 Fellow Graduates in Rhinology and Sinus/Skull Base Surgery, Head & Neck Oncology and Microvascular Reconstructive Surgery, Pediatric Otolaryngology, and Facial Plastic and Reconstuctive Surgery

Drs. Rod Schlosser and Fred Yoo

Drs. Eric Lentsch, Terry Day, Mark Kubik, Angela Haskins, Josh Hornig, and Judy Skoner

Fredrick Yoo, M.D. was loved by our MUSC patients and staff alike for his genuine kindness, sharp wit and sense of humor. He is an outstanding surgeon and will continue his academic career at Henry Ford Health System in Detroit, Michigan.

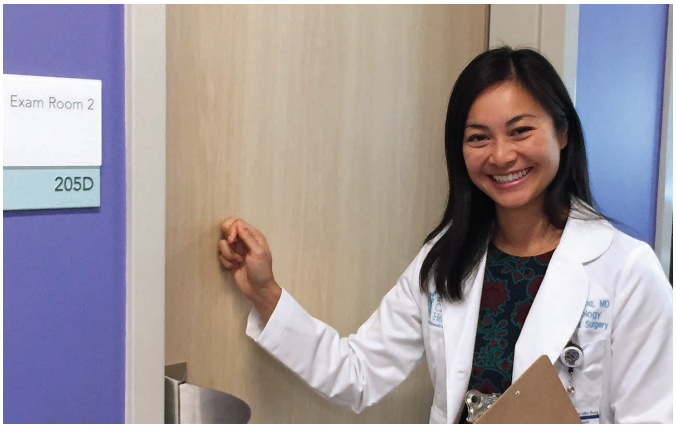
Mark W. Kubik, M.D. was described as thorough, conscientious, and caring, and excelled in the surgical arena particularly when not wearing his Notre Dame scrub cap. He is now Assistant Professor in Otolaryngology and Plastic Surgery at the University of Pittsburgh Medical Center. His goals include a comprehensive and multidisciplinary approach to each patient to provide the best cure, quality of life, and cosmesis.

Angela D. Haskins, M.D. was described as a strong patient advocate with a passion for teaching, and provided excellent surgical and clinical care for her patients. During fellowship, she also completed a minor in cartography. She is now Assistant Professor at Baylor College of Medicine in Houston, Texas. Her goals include comprehensive care of patients with head and neck cancer, reconstruction of skin cancer defects, and microvascular reconstruction.

Alexander P. Marston, M.D. completed a Facial Plastic and Reconstructive Surgery fellowship this year, and a Pediatric Otolaryngology fellowship last year within our department. His exceptional skills as a clinician and surgeon, and compassion for his patients has set him up for great success as he joins Tufts Medical Center in Boston, Massachusetts.

Phayvanh P. Pecha, M.D. completed her Pediatric Otolaryngology fellowship following a very successful residency at the University of Utah. She joined this summer as our fourth Pediatric Otolaryngologist. Dr. Pecha will also be obtaining a Master of Public Health (MPH) degree and her research will focus on health care disparities.

Drs. Krishna Patel, Sam Oyer, Alex Marston, and Judy Skoner



Dr. Phayvanh Pecha at the door to see her very first pediatric patient since joining the faculty at MUSC.

Otolaryngology - Head & Neck Surgery Faculty

Otology & Neurotology

Paul R. Lambert, M.D.
Professor and Chairman
Director, Otology-Neurotolgy
M.D.: Duke University
Residency: UCLA
Fellowship: House Ear Institute,

Theodore R. McRackan, M.D., MSCR
Associate Professor
Director, Skull Base Surgery Center
M.D.: MUSC
Residency: Vanderbilt University Medical Center
Fellowship: House Ear Institute

Ted A. Meyer, M.D., Ph.D.
Professor
Director, Cochlear Implant Program
M.D. & Ph.D: University of Illinois
Residency: Indiana University
Fellowship: University of Iowa

Habib G. Rizk, M.D., MSc
Assistant Professor
Director, Vestibular Program
M.D.: Saint Joseph University, Beirut, Lebanon
Residency: Saint Joseph Univ. and Hotel-Dieu de France Hospital, Beirut, Lebanon
Fellowship: MUSC

Mary Ann Howerton, PA-C
Physician Assistant
MSPAS: MUSC

Maxillofacial Prosthodontics

Betsy K. Davis, D.M.D., MS
Professor
Medical Director, Maxillofacial Prosthodontics
D.M.D.: MUSC
Residency: University of Iowa
Fellowship: M.D. Anderson; UCLA

J Rhet Tucker, D.M.D.
Assistant Professor
D.M.D.: University of Pennsylvania
Residency: U.S. Army
Fellowship: MD Anderson

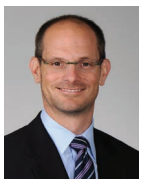
Head & Neck Oncology

Terry A. Day, M.D.
Professor and Director
MUSC HN Tumor Program
Wendy and Keith Wellin Chair in Head & Neck Surgery
M.D.: University of Oklahoma
Residency: LSU-Shreveport
Fellowship: UC Davis

Evan M. Graboyes, M.D., FACS
Assistant Professor
M.D. & Residency: Washington University School of Medicine
Fellowship: MUSC

Joshua D. Hornig, M.D.
Associate Professor
Director, Microvascular Surgery and Functional Outcomes
M.D. & Residency: University of Alberta
Fellowship: MUSC

Eric J.Lentsch, M.D., FACS
Professor
M.D. & Residency: University of Louisville
Fellowship: MD Anderson



David M. Neskey, M.D., MSCR, FACS
Assistant Professor
M.D.: Albany Medical College
Residency: University of Miami
Fellowship: MD Anderson

Sara F. Jasper, ACNP-BC
Acute Care Nurse Practitioner
MSN: Columbia University

Caitlin L. Mengler, RN, ACNP-BC
Acute Care Nurse Practitioner
MSN: New York University

Kiely M. St. Germain, FNP-C, MSN
Family Nurse Practitioner
MSN: University of Maine School of Nursing

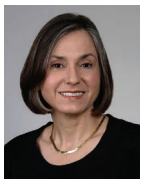
Rhinology & Sinus Surgery

Rodney J. Schlosser, M.D.
Professor and Director, Rhinology and Sinus Surgery
M.D.: Mayo Clinic
Residency: University of Virginia
Fellowship: University of Pennsylvania

Zachary M. Soler, M.D., MSc
Associate Professor
M.D.: Wake Forest University
Residency: Oregon Health and Science University
Fellowship: Harvard Medical School

TK Wall, DNP, NP-C
Family Nurse Practitioner
DNP: MUSC

Evelyn Trammell Institute for Voice and Swallowing



Lucinda A. Halstead, M.D.
Associate Professor
Medical Director, ETIVS
M.D.: George Washington University
Residency: New England Medical Center, Boston

Ashli K. O'Rourke, M.D.
Associate Professor
M.D.: Medical College of Georgia
Residency: University of Virginia
Fellowship: Medical College of Georgia

Clinical Trials

Shaun A. Nguyen, M.D., FAPCR
Professor and Director, Clinical Research
M.D. & Residency: University College London
Fellowship: MUSC

Otolaryngology - Head & Neck Surgery Faculty

Pediatric Otolaryngology

David R. White, M.D.
Professor and Director, Pediatric Otolaryngology
MUSC Children's Health Surgeon in Chief
Director, Peds Airway and Aspiration Program
M.D.: MUSC
Residency: UNC Chapel Hill
Fellowship: Cincinnati Children's

Clarice S. Clemmens, M.D.
Assistant Professor
M.D.: MUSC
Residency: Hospital of the University of Pennsylvania
Fellowship: Children's Hospital of Philadelphia

Christopher M. Discolo, M.D., MSCR
Associate Professor
Director, Craniofacial Anomalies and Cleft Lip/Palate Team
M.D.: State University of NY
Residency: Cleveland Clinic
Fellowship: University of MN

Phayvanh P. Pecha, M.D.
Assistant Professor
M.D.: University of Minnesota
Residency: University of Utah
Fellowship: MUSC

Helen F. Kulseth, PA-C
Pediatric Physician Assistant
MSPA: MUSC

Lydia B. Redden, CPNP-AC
Acute Care Pediatric Nurse Practitioner
MSN: University of South Alabama

Jana L. Wheeler, PPCNP-BC
Pediatric Nurse Practitioner
MSN: Yale University
DNP: MUSC

Facial Plastic & Reconstructive Surgery

Krishna G. Patel, M.D., Ph.D.
Associate Professor
Director, FPRS
M.D. & Ph.D. : Medical College of Georgia
Residency: UNC Chapel Hill
Fellowship: UC Davis

Sam L. Oyer, M.D., FACS
Assistant Professor
Director, Facial Paralysis Treatment Program
M.D.: Indiana University
Residency: MUSC
Fellowship: Johns Hopkins

Judith M. Skoner, M.D.
Assistant Professor
M.D.: University of South Carolina
Residency: MUSC
Fellowship: Oregon Health and Science University

Emily Kueser, MSPAS, PA-C
Physician Assistant
MSPAS: MUSC

General Otolaryngology & Allergy

Mark J. Hoy, M.D.
Assistant Professor
Director, General Otolaryngology & Allergy
M.D.: Temple University
Residency: University of Lousiville

Robert C. Waters, M.D.
Clinical Assistant Professor
M.D.: MUSC
Residency: Washington University in St. Louis

Audiology

Kimberly A. Orr, AuD, CCC-A
Director, Audiology
MA: Ohio State University
AuD: A.T. Still University

Kara Leyzac AuD, CCC-A Ph.D.
Director, CI Program
Assistant Professor
AuD & Ph.D.: University of Maryland

Elizabeth Camposeo, AuD, CCC-A
Director, Clinical Operations, CI Program
Clinical Assistant Professor
AuD: Northwestern University

Meredith L. Duffy, AuD, CCC-A
Instructor
AuD: University of Connecticut School of Medicine

Claire Hauschildt, AuD, CCC-A
Instructor
AuD: Purdue University

Elizabeth A. Poth, AuD, CCC-A
Instructor
MS: UNC Chapel Hill
AuD: A.T. Still University

Michelle L. Sewell, AuD, CCC-A
Instructor
AuD: UNC Chapel Hill

Christine C. Strange, AuD, CCC-A
Instructor
Clinical Director, Vestibular Program
MA: SUNY Plattsburgh
AuD: A.T. Still University

Yolin Sung, AuD, CCC-A
Instructor
AuD: Vanderbilt University

Oto - HNS Research Faculty

Hearing Research

Judy R. Dubno, Ph.D.
Professor, Director, MUSC Hearing Research Program
Ph.D.: City University of New York

Jayne B. Ahlstrom, M.S.
Instructor
M.S.: Vanderbilt University

Mark A. Eckert, Ph.D.
Professor
Ph.D.: University of Florida

Kelly C. Harris, Ph.D.
Associate Professor
Ph.D.: University at Buffalo

Lois J. Matthews, M.S.
Instructor
M.S.: Purdue University

Kenneth I. Vaden, Jr., Ph.D.
Research Assistant Professor
Ph.D.: University of California, Irvine

Head & Neck Oncology

M. Rita I. Young, Ph.D.
Professor
Senior Research Career Scientist, Ralph H. Johnson VA Medical Center
Ph.D.: Washington State University

Rhinology & Sinus

Jennifer K. Mulligan, Ph.D.
Associate Professor
Ph.D.: MUSC

Welcome to MUSC!

MUSC would like to welcome **Beverly J. "BJ" Harrington, MA, CFRE** as our new Director of Development for the Department of Otolaryngology – Head and Neck Surgery.

BJ has over 20 years of fundraising and development/ fundraising, marketing and strategic planning experience in health care and in academic institutions.

She is joining us from the University of Miami's Miller School of Medicine where she most recently served as Senior Director of Development for the Department of Medicine.

Please join us in welcoming BJ to Charleston and to the MUSC community!

You Can Make a Difference!

If you would like to be a part of our lifesaving mission to help find a cure for diseases and help advance education and cutting-edge research at MUSC, the Development Office is ready to help guide you through the process.

CONTACT:
Beverly J. Harrington
Director of Development
843-876-0536
harrinbe@musc.edu

Welcome to MUSC!

PGY2 Residents

The Department welcomed four new PGY2s into service in July 2019.

Katherine A. Gossett, M.D., from Raleigh, NC, graduated magna cum laude from University of Georgia with a dual degree in Biology and Psychology. She attended UNC for medical school, and became interested in ENT after growing up with a hearing impaired sister. She received the Harold C. Pillsbury Research Fellowship and conducted Rhinology and Skull base surgery research for a year, and authored several papers in Rhinology and Laryngology. She enjoys backpacking, the beach, podcasts, running, her border collie, and trying new restaurants.

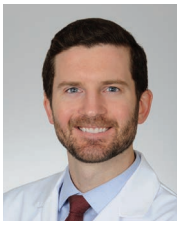
David Macias, M.D., moved to Chattanooga, Tennessee, from Switzerland at age 11. He earned a nursing degree, working for several years as a nurse, before attending medical school at Loma Linda University in California. While in medical school, he co-authored several papers in a variety of disciplines within Otolaryngology and was inducted into the Alpha Omega Alpha Honor Society. In his free time, he enjoys cycling, traveling, digital audio, and foraging for vegan pastries.

Lindsey L. Shehee, M.D., is from Chapin, SC. She received her BS in Biological Sciences from Mercer University and graduated summa cum laude. She then attended MUSC for medical school where she was inducted into the Alpha Omega Alpha Honor Society. She co-authored publications on laryngology, dysphagia, and management of sialorrhea. In her free time, Lindsey enjoys traveling, cooking, and boating.

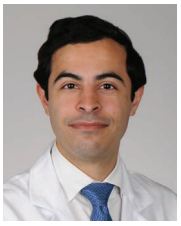
Courtney B. Tipton, M.D., from Sylvania, OH, received her BS in Cellular and Molecular Biology and Drama at the University of Michigan. Although a self-proclaimed Michigan fan, she then attended the Ohio State University College of Medicine. While there, her research focus was primarily in Laryngology, and she participated in musical theatre productions in her spare time. Courtney enjoys traveling, cycling, singing, acting, and dancing.

2019-20 Fellows

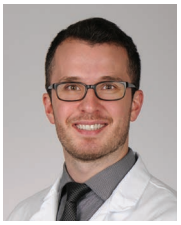
MUSC offers otolaryngology fellowships in five subspecialies. In addition to an extensive surgical experience, fellows benefit from a multidisciplinary approach by participating in outpatient clinics, rounds, and didactic conferences.



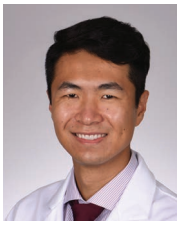
Jason D. Pou, M.D.
Facial Plastic & Reconstructive Surgery
MD: Louisiana State University
Residency: Tulane University
Special interest: Septorhinoplasty, Mohs reconstruction, facial paralysis, cleft lip and palate, aging face



Mahmoud I. Awad, M.D.
Head & Neck Oncology Fellow
MD: Weill Cornell Medicine - Qatar
Residency: New York-Presbyterian Hospital
Special Interests: Oral cavity cancer, HN reconstruction, quality of care, outcomes research



Peter M. Horwich, M.D.
Head & Neck Oncology Fellow
MD: Dalhousie University, Canada
Residency: Dalhousie University, Canada
Special Interest: Adequacy of oncologic resection margins, immunotherapy, reconstruction of complex HN defects



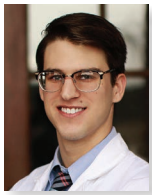
Yuan F. Liu, M.D.
Otology / Neurotology Fellow
MD: UCLA
Residency: Loma Linda Health
Special Interests: lateral skull base tumors, cochlear implantation, otosclerosis, vestibular migraine, Ménière's disease

Jaye Bea Downs, DO
Pediatric Otolaryngology Fellow
D.O.: Oklahoma State University
Residency: Oklahoma State University
Special Interest: Pediatric Otolarngology, airway disorders, vascular malformations, craniofacial anomalies, congenital and acquired hearing loss.

Ryan E. Little, M.D.
Rhinology Fellow
M.D.: UNC at Chapel Hill
Residency: Medical College of Wisconsin
Special Interest: revision sinus surgery, anterior skull base surgery, endoscopic orbital surgery, chronic sinusitis, pediatric sinusitis, sinonasal tumors

To learn more about our residency and fellowhip programs please visit our website at **musc.edu/ent**

Clinical Research Fellows



Vincent Desiato, D.O.
William Carey University College of Osteopathic Medicine

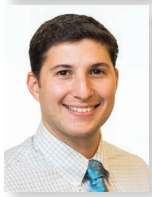
Jaimin Patel, M.D.
University of Miami Miller School of Medicine

Kentrez Thompson, M.D.
MUSC

Young Jae Byun, MS4
University of Central Florida College of Medicine

Stephen Fuller, MS4
MUSC College of Medicine

Joshua Lee, MS4
Albany Medical College



Dylan Levy, MS4
Frank H. Netter MD School of Medicine

Priyanka Reddy, MS4
University of Miami Miller School of Medicine

Flora Yan, MS4
University of Texas Southwestern

Current Clinical Trials

Shaun A. Nguyen, M.D., FAPCR, Clinical Research Director

Acute Hearing Loss

Prevention of Acute NIHL and Tinnitus (PANIHLT) Phase 2b trial (to start fall 2019).

Efficacy and Safety of AM-111 as Acute Sudden Sensorineural Hearing Loss Treatment (ASSENT).

Eustachian Tube Dysfunction

XprESS ET Balloon Dilation Registry.

Chronic Sinusitis

A Phase III, Randomized, Multicenter, Double-blind, Placebo-controlled Clinical Trial of Omalizumab in Patients with Chronic Rhinosinusitis with Nasal Polyps.

Open Label Extension Study of Omalizumab in Patients with Chronic Rhinosinusitis with Nasal Polyps.

A Multicenter, Randomized, Double-Blind, Parallel-Group, Placebo-Controlled Phase 3 Efficacy and Safety Study Of Benralizumab in Patients with Severe Nasal Polyposis (OSTRO).

A 24-Week Randomized, Double-Blind, Placebo-Controlled, Parallel-Group,Multicenter Study Evaluating the Efficacy and Safety of Intranasal Administration of 186 and 372 µg of OPN-375 Twice a Day (BID) in Subjects with Chronic Sinusitis With or Without the Presence of Nasal Polyps.

A Phase 2a, Randomized, Double-Blind, Placebo-Controlled, MultiCenter Study to Evaluate the Effect of GB001 in Patients with Chronic Rhinosinusitis with or without Nasal Polyps

SinuSonic Study to Evaluate Safety and Efficacy of a SinuSonic Device to Relieve Nasal Congestion.

Head and Neck Cancer

A Phase 1b/2, Open-label, Multicenter, Dose-escalation and Expansion Trial of Intratumoral SD-101 in Combination With Pembrolizumab in Patients With Metastatic Melanoma or Recurrent or Metastatic Head and Neck Squamous Cell Carcinoma.

A Randomized Phase II Study of Adjuvant Concurrent Radiation and Chemotherapy versus Radiation Alone in Resected High-Risk Malignant Salivary Gland Tumors.

Phase II Randomized Trial of Transoral Surgical Resection followed by Low-dose or Standard-dose IMRT in Resectable p16+ Locally Advanced Oropharynx Cancer.

Phase II Trial of Nivolumab, a Anti-PD-1 Monoclonal Antibody, As a Novel Neoadjuvant Pre-surgical Therapy for Locally Advanced Oral Cavity Cancer.

Clinical Evaluation of the OncAlert® RAPID in Subjects Presenting for Evaluation and/or Initial Biopsy; Impact on Decision-Making.

Transdisciplinary Oral/Oropharyngeal Cancer Research & Care in Head and Neck Cancer (TORCH): A Prospective Non-Randomized Study by the Head and Neck Oncology Group (HNOG) at the Medical University of South Carolina (MUSC)

Meniere's Disease

SPI-1005 a Novel Treatment for Meniere's Disease (NoMD) Phase 3 trial (to start Fall 2019).

A prospective, randomized, double blind, placebo-controlled, multicenter, phase 3 efficacy and safety study of OTO-104 given as a single intratympanic injection in subjects with unilateral meniere's disease.

Obstructive Sleep Apnea

Targeted Hypoglossal Neurostimulation Study #3 (THN3).

Inspire® Upper Airway Stimulation (UAS) System: Post Approval Study.

Adherence and Outcome of Upper Airway Stimulation (UAS) for OSA International Registry.

Pediatric

Randomized Controlled Trial of Valganciclovir for Asymptomatic Cytomegalovirus Infected Hearing Impaired Infants (ValEAR Trial).

A 16-Week Randomized, Double-Blind, Placebo Controlled, Parallel-Group, Multicenter Study Evaluating the Efficacy and Safety of OPN-375 186 µg Twice a Day (BID) in Adolescents with Bilateral Nasal Polyps followed by a 12-Week Open-Label Treatment Phase.

Novus OP0201_C_009 Chronic Otitis Media with Effusion (to start Fall 2019).

Sound Pharmaceuticals Announces Positive Topline Results from the SPI-1005 Phase 2b Meniere's Disease Clinical Trial

SPI-1005, an investigational new drug that contains ebselen, hits pre-specified endpoints resulting in a significant improvement in hearing loss of 65 percent and 95 percent relative to placebo.

Sound Pharmaceuticals announced positive top-line results from a randomized, double-blind, placebo-controlled, multi-center Phase 2b study in Meniere's Disease (MD). The study consented 149 adult patients with active MD, including a hearing loss at baseline of >30 dB in one of three low frequencies, to receive either placebo, 200, or 400 mg SPI-1005 by mouth, twice daily for 28 days, with follow-up assessments at four and eight weeks after the start of treatment. The pre-specified audiometric endpoints were to determine if SPI-1005 could improve hearing sensitivity or thresholds in dB by a clinically relevant difference vs placebo.

In the trial, clinically relevant improvements in hearing loss (≥10 dB gain from baseline at one low frequency) using pure-tone audiometry (PTA) were significantly higher in the 400 mg dose group vs placebo (61 percent vs 37 percent, p<0.023), a relative improvement of 65 percent over placebo at eight weeks. Clinically relevant improvements in word recognition (≥10% increase in word recognition from baseline) using the words-in-noise test (WINT) also showed higher responses when compared to placebo (75 percent vs 56 percent, p<0.060), a relative improvement of 34 percent over placebo at eight weeks. Secondary efficacy endpoints were also tested using stricter responder criteria involving PTA and WINT. Using stricter PTA criteria (≥10 dB gain from baseline at two adjacent low frequencies), the 400 mg dose group showed higher relative response rates (39 percent vs 20 percent, p<0.044), a 95 percent improvement over placebo. Using stricter WINT criteria (≥4 words improvement from baseline), the 400 mg dose group showed higher relative response rates (60 percent vs 34 percent, p<0.017), a 76percent improvement over placebo. Results from the Intent-to-Treat (ITT) analysis showed that SPI-1005 was well-tolerated in the 124 patients that received at least one oral dose of study drug during the 28-day dosing period. No serious adverse events occurred, and the majority of adverse events were mild to moderate, and consistent with those observed in prior studies. A more detailed presentation of the ITT and Per-Protocol analyses will occur at a scientific meeting later this year.

"This clinical trial indicates that SPI-1005 may have the potential to significantly improve the loss of hearing and loss of word recognition in Meniere's, a complex and chronic inner ear disease," said **Jonathan Kil, M.D., Co-Founder and CEO.**

"We are very excited by the magnitude of the positive results of this trial in this diverse Meniere's disease population," said **Paul Lambert, M.D.**, Lead Principal Investigator of the Phase 2b study. Dr. Lambert is a world renowned neurotologist, past President of the American Neurotologic Society, and Chairman of the MUSC Department of Otolaryngology-Head & Neck Surgery.

About the Phase 2b trial

Enrollment occurred at 14 sites across the US between September 2017 and March 2019, and involved 149 consented adults (22 to 75 years old). Subjects were randomized (1:1:1) to either placebo or one of two oral doses of SPI-1005 (200 or 400 mg, twice daily). Each study arm (n=41-42 adults) received 28 days of treatment and had follow-up assessments at four and eight weeks after the start of treatment.The average age in the ITT population was 54.5 years (66 females and 58 males) and some study participants had been diagnosed with MD over 20 years before study enrollment.

About Sound Pharmaceuticals

A privately held biotechnology company testing SPI-1005 under four active Investigational New Drug Applications involving several neurotologic indications, including an ongoing Phase 2 clinical trial in Cystic Fibrosis patients receiving IV tobramycin for the treatment of pulmonary exacerbation. The company is also studying bipolar disorder in collaboration with the University of Oxford, in a proof-of-concept Phase 2 clinical trial where the novel anti-inflammatory and neuroprotective properties of SPI-1005 are being tested in active hypomania.

Details of the SPI-1005 clinical trials can be viewed online at www.clinicaltrials.gov, or by visiting www.soundpharma.com.

Upcoming CME Events

The 34th Annual F. Johnson Putney Lectureship in Head and Neck Cancer

November 1, 2019 Hollings Cancer Center, MUSC Campus

This half day lectureship will bring together world class Head and Neck specialists to discuss improving the quality of health care for patients with head and neck cancer.

Keynote Speaker: **Eben Rosenthal, M.D.**, Stanford Cancer Center, Stanford, CA.

The Charleston Pharyngoesophageal Manometry Program

January 10-11, 2020

This day and a half course provides in-depth training on the utilization of high resolution manometry for evaluation and management of pharyngeal and esophageal dysphagia. Designed for speech pathologists and otolaryngologists, we will cover pharyngeal and esophageal diagnostic examinations and the use of HRM for biofeedback in dysphagia therapy. A hands-on laboratory session provides real time instruction and software interpretation practice. *More info soon!*

The 7th Annual Charleston Pediatric ENT Update

February 8, 2020

A comprehensive full day course designed to provide pediatricians, family practioners, and otolaryngologists with up-to-date guidelines to implement in their daily practice, promote quality and efficient care, and tackle challenging ENT diagnosis with confidence.

Southern States Rhinology Course

April 29 - May 2, 2020 Kiawah Island and MUSC Campus

This course is intended for practicing Otolaryngologists and will feature presentations on topics for the practicing rhinologists and sinus surgeons. A hands-on laboratory dissection is available, featuring state-of-the-art endoscopic instrumentation, video, and image guidance systems.

The 19th Temporal Bone Dissection Course

Date TBD MUSC Campus

An intensive two-day otology course that offers lectures and hands on labs focused on procedures for chronic ear disease. For practicing otolaryngologists.

20th Annual Charleston Magnolia Conference

May 29 - 30, 2020

Two half-day sessions covering the broad spectrum of Otolaryngology – Head and Neck Surgery. The lectures and round table discussions are specifically aimed at the practicing otolaryngologist. There will be ample opportunity for questions, comments, and presentation of cases by the audience. Our goal will be to review and to provide the latest information on a broad range of topics, so that optimal diagnostic and management strategies can be formulated.

The Charleston Course, 10th Annual Otolaryngology Literature Update

July 17 & 18, 2020 Kiawah Island Golf Resort

This course is designed to help the busy clinician stay current in our rapidly expanding specialty. Fifteen of our faculty members are charged with reviewing last year's literature and choosing five to eight best articles in their subspecialty for critical review. In two days, more than 100 manuscripts will be reviewed, and those "pearls" important to your practice will be emphasized. There may be no better way to stay current in our field than with the Charleston Literature Course!

The Charleston Vestibular Update

November 6-7, 2020 MUSC Campus

This one-and-a-half day intermediate conference is designed for all providers involved in the care of patients with vestibular disorders. The course will cover many key topics on the evaluation and management of dizzy patients to provide current knowledge and the ability to employ best practices when servicing this population

Some details are still in the works! Visit our website for updates: **musc.edu/ent/cme**

For course registration or more information: Julie Taylor, taylojul@musc.edu or 843-876-0943

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

Ranked among the Top 25 in the Nation, and the only ranked ENT group in South Carolina

The MUSC Department of Otolaryngology - Head & Neck Surgery continues to rank among the elite programs in the country in education, clinical research and clinical trials, basic research, and patient care. "We take enormous pride in this special Department, but acknowledge that our Department does not function in isolation, and thus we applaud the leadership and infrastructure provided by MUSC and our amazing colleagues across the enterprise."

Paul R. Lambert, M.D.
Professor and Chair
Department of Otolaryngology - Head & Neck Surgery
Director, Otology & Neurotology

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Changing What's Possible

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Charleston, SC 29425-5500
Phone 843-792-8299

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THE MEDICAL UNIVERSITY OF SOUTH CAROLINA

Founded in 1824 in Charleston, The Medical University of South Carolina is the oldest medical school in the South. Today, MUSC continues the tradition of excellence in education, research, and patient care. MUSC educates and trains more than 3,000 students and residents, and has nearly 13,000 employees, including approximately 1,500 faculty members. As the largest non-federal employer in Charleston, the university and its affiliates have collective annual budgets in excess of $2.2 billion. MUSC operates a 750-bed medical center, which includes a nationally recognized Children's Hospital, the Ashley River Tower (cardiovascular, digestive disease, and surgical oncology), Hollings Cancer Center (one of 68 National Cancer Institute designated centers), Level I Trauma Center and Institute of Psychiatry.

Changing What's Possible