Continuing an Upward Trajectory

Working harder and growing bigger are not necessarily laudable goals; however, working smarter to achieve strategic growth is worthwhile. Our department has had strong success with strategic growth in both the clinical and research arenas, and we are beginning to put mechanisms in place which will hopefully allow us to work with greater efficacy and efficiency.

On the growth side, I am pleased to introduce two new faculty members in this newsletter: Barry Malin, MD, MPP, an Assistant Professor in the Head and Neck Division, and Ashli O’Rourke, MD, an Assistant Professor in the Laryngology Division. Combining their superb clinical skills with our departmental/institutional infrastructure will allow them to succeed as clinician-scientists. Our full-time clinical faculty now numbers 17, with four part-time faculty at our VA Hospital and outreach sites. This past year we saw more than 35,000 outpatients and performed more than 4,000 surgical procedures.

On the research front, this newsletter highlights important insights into the association of age-related hearing loss and loss of myelin in the spiral ganglion and cochlear afferent nerve fibers. Interestingly, changes in myelinated nerve fibers have been seen in a number of neurodegenerative disorders, including Alzheimer’s disease. Our growth in basic science research has been strategic, allowing us to maintain our top 10 status in NIH funding for Otolaryngology – Head and Neck Surgery departments for over a decade. The productivity of our clinical and basic research enterprises is captured in the 68 manuscripts published in 2011.

How does one work smarter? Each of our faculty is provided a monthly dashboard displaying a plethora of information (charges, collections, work RVUs, payor mix, most frequently billed codes, etc.). Synthesizing that data for the group and developing practice strategies will be the responsibility of a new departmental committee directed by M. Boyd Gillespie, M.D. in his role as Vice Chair for Clinical Outreach. It is our anticipation that these strategies will improve both patient outcomes and physician satisfaction. We look forward to sharing within these pages best practices that prove themselves over time.
Ashli O’Rourke, M.D., M.S.

joined the MUSC Evelyn Trammell Institute for Voice and Swallowing in September 2012. Dr. O’Rourke began her professional career as a Speech-Language Pathologist (SLP), earning her Masters degree in Speech-Language Pathology and Audiology from Florida State University. After seven years of clinical speech therapy practice at Emory University Hospital, she attended medical school at the Medical College of Georgia. She completed her residency in Otolaryngology – Head and Neck Surgery at University of Virginia in Charlottesville, Virginia and fellowship in Laryngology – Voice and Swallowing Disorders at the Medical College of Georgia.

Dr. O’Rourke treats adult patients with problems located in the larynx and the esophagus. This includes hoarseness or voice disturbances, dysphagia, or breathing difficulties due to airway stenosis or scar. She is particularly interested in the diagnosis and treatment of swallowing disorders as well as laryngopharyngeal reflux disease. Her research interests include exploring less invasive techniques for the diagnosis of laryngopharyngeal reflux. Dr. O’Rourke sees patients in Mount Pleasant and downtown Charleston. She is board-certified through the American Board of Otolaryngology.

Barry T. Malin, M.D., M.P.P.

joined the MUSC Head and Neck Surgery Division in July 2012. Originally from Buffalo, NY, Dr. Malin graduated from medical school at the University of California at San Francisco (UCSF) followed by residency training in Otolaryngology - Head & Neck Surgery at the State University of New York at Buffalo. He then completed fellowship training in Surgical Oncology and Microvascular Reconstruction of the Head and Neck at MUSC. Additionally, he completed a Master's Program in Health Policy at Harvard University.

Dr. Malin’s practice is dedicated to the treatment of head and neck cancer. In addition to the full range of head and neck ablative surgery, Dr. Malin also performs microvascular free flap reconstruction. His clinical interests include the treatment of advanced non-melanoma skin cancers and microvascular reconstruction of the head and neck. Dr. Malin sees patients at the Hollings Cancer Center and the Ralph H. Johnson VA Medical Center.

Dr. Malin has authored five chapters in major Head and Neck surgery textbooks and several manuscripts in Otolaryngology - Head & Neck Surgery. His current primary research interests include topics related to quality of care, access to care and treatment disparities among patients with head and neck cancer. Dr. Malin is board-certified by the American Board of Otolaryngology.

Publications


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The Charleston Course: 2nd Annual Otolaryngology Literature Update

The department hosted its 2nd Annual Literature Update Course on July 27 - 29, 2012 at the beautiful Kiawah Island Golf Resort. Over 30 Otolaryngologists representing 14 states enjoyed the two-and-a-half days of our faculty critically analyzing the year's most relevant, evidence-based medical literature. Afternoons were free to enjoy the beaches, golf, tennis, restaurants and many other activities on the island, or to take a short drive into historic downtown Charleston. We hope you can join us for the 2013 Annual Otolaryngology Literature Update to be held on July 26 - 28, again at Kiawah. Bring the family and experience all the area has to offer.

The Charleston Sleep Surgery Symposium

Our inaugural Sleep Surgery Symposium was held at the Charleston Renaissance Hotel February 24 - 25, 2012 under the direction of M. Boyd Gillespie, MD, MSc. Over 40 otolaryngologists from 22 states attended the lectures, roundtable discussions, live patient demonstration, and hands-on labs focused on procedures for snoring and sleep disordered breathing. Guest professors included Lon R. Doles, DDS (South Carolina); Stacey L. Ishman, MD (Johns Hopkins); J. Scott Magnuson, MD (UAB); and Kathleen Yaremchuk, MD (Henry Ford).

1st Annual Charleston Sleep Surgery Symposium

Our inaugural Sleep Surgery Symposium was held at the Charleston Renaissance Hotel February 24 - 25, 2012 under the direction of M. Boyd Gillespie, MD, MSc. Over 40 otolaryngologists from 22 states attended the lectures, roundtable discussions, live patient demonstration, and hands-on labs focused on procedures for snoring and sleep disordered breathing. Guest professors included Lon R. Doles, DDS (South Carolina); Stacey L. Ishman, MD (Johns Hopkins); J. Scott Magnuson, MD (UAB); and Kathleen Yaremchuk, MD (Henry Ford).

3rd Annual Pediatric Audiology Conference: Auditory Neuropathy Spectrum Disorder

The 2012 Pediatric Audiology Conference was held on March 16, directed by Meredith Holcomb, AuD. Guest lecturers were Patricia Roush, AuD (North Carolina) and Yvonne Siniger, PhD (California). More than 60 attendees from North and South Carolina, and Georgia participated in the educational event complete with a sun-washed Charleston waterfront luncheon.

12th Annual Charleston Magnolia Conference

Our distinguished guest speakers for the 2012 Magnolia Conference held June 1-2, 2012 were John W. House, MD (California), Heinrich Iro, MD (Germany), John S. Rhee, MD (Wisconsin), and James D. Sidman, MD (Minnesota). More than 50 attendees from around the country came for the presentations and round table lunch discussions covering the breadth of our specialty, directed by Department Chair, Paul R. Lambert, MD. The weather was ideal, providing the perfect setting to enjoy historic Charleston, the beaches, golf, and the Spoleto Festival USA.

Please join us for the 13th Annual Magnolia Conference, May 31 - June 1, 2013 for another several days of exceptional education and recreation.

The Carolinas Pediatric Airway Course

This resident training course held on October 13 - 14, 2011 was co-hosted by MUSC and the University of North Carolina. The two days of lectures and hands-on labs focused on pediatric endoscopic and open airway surgical techniques. Drs. David R. White (MUSC) and Carlton J. Zdanski (UNC) co-directed the course with faculty instructors and residents from MUSC, UNC, Duke, Emory, Georgia Health Sciences and Wake Forest.

The fourth annual course will be held in Chapel Hill, December 13 - 14, 2012.

Temporal Bone Dissection Courses

Intensive two-day otology courses for the practicing otolaryngologist focused on procedures for chronic ear disease. This biannual course includes hands-on training in our state-of-the-art temporal bone lab.

Course Director: Ted A. Meyer, M.D., Ph.D.

Fall Course - December 2-3, 2011 Guest Speaker: Larry R. Lustig, M.D. (UCSF)
Spring Course - May 11-12, 2012 Guest Speaker: John L. Dornhoffer, M.D. (University of Arkansas)
The treatment of thyroid cancer is relatively well-standardized; however, there remain several areas of controversy and debate. Two of these areas are the importance of age and cervical lymph node involvement as prognostic factors for survival in patients with well-differentiated thyroid carcinoma (DTC). Our group recently published studies on each of these topics which may help elucidate them (1,2).

Patient age has long been known to be a prognostic factor in patients with DTC. In fact, the current staging system underscores the importance of age by creating two dichotomous patient groups based on a somewhat arbitrary age cutoff of 45 years. However, since it is somewhat unclear how and why the age of 45 was chosen for the staging guidelines, we chose to study this question using the Surveillance, Epidemiology, and End Results (SEER) database. A total of 42,209 patients with DTC were studied with disease specific survival (DSS) as the main study endpoint. Two important findings came out of our study. First, we identified that the DSS for patients actually worsens earlier than the staging system says. We found that patients over the age of 35 were 14 times more likely to die of their disease than patient's younger than 35 years. This is 10 years less than the staging system describes, and at least 5 years younger than any previous study has described. Secondly, we showed a continued decline in disease-specific survival with each advancing decade over age 35 years (Figure 1). Thus rather than a dichotomous division into 2 age groups, survival in DTC represents a continuum with advancing age conferring an independent risk factor for mortality. The clinical implication of this finding is realized when counseling patients of various ages. For example, patients in the 65-74-year age range have a 3- to 5-fold increase in disease-specific mortality compared with patients aged 45 to 54 years. And the mortality rate for the 65- to 74-year-old patients approaches 10% and 20% - far from the excellent prognosis generally associated with a diagnosis of DTC.

The second area of controversy we chose to address concerns the issue of whether or not cervical lymph node metastasis increases the risk of death in patients with DTC. Multiple studies have indicated that the presence of cervical metastasis does not worsen survival but instead increases their chance of recurrence. We again chose the SEER database to study this counter-intuitive notion. We looked at over 11,000 patients with DTC, 40% of whom had lymph node metastasis at the time of diagnosis. We found that for those patients less than 45 years old, lymph node metastasis did not significantly affect DSS – supporting the current literature. However, for those patients less than 45 years old, lymph node metastasis did not significantly affect DSS – supporting the current literature. However, what was unexpected was that DSS was indeed worse for patient's greater than 45 years old.
who had lateral compartment or mediastinal involvement of the lymph nodes. (Figure 2). Clinically this may be important in our counseling of patients with lateral or mediastinal nodal disease who are over 45 years old, since they appear to have a significantly worse survival.

These studies and others we are doing on topics such as melanoma and sarcoma utilize the SEER database. This is a large population-based registry that allows for the identification of exceptionally large cohorts for study. SEER lacks the referral and reporting biases that may be inherent in institutional studies and reflects the care of patients across a spectrum of community hospitals, county hospitals, academic medical centers, and health maintenance organizations. It is therefore a valuable tool that we hope to use in the future to provide a better idea as to what the prognostic factors are for many other disease entities.

References


Age-Related Spiral Ganglion Neuron Loss in Human Temporal Bones

Hainan Lang, M.D., Ph.D. and Judy R. Dubno, Ph.D

About half of all people over age 75 have some degree of age-related hearing loss (presbyacusis). One of the most common pathological changes seen in presbyacusis is the loss and malfunction of cells in the inner ear, including spiral ganglion neurons of the auditory nerve and their projections. Characterizing the molecular basis of spiral ganglion neuron degeneration in the human inner ear will lead to a better understanding of the pathophysiology of presbyacusis. Such information is critical to advance diagnosis and prevention, and to design effective therapies for this common neurodegenerative disorder. Studies of histopathologic and molecular changes of the human inner ear are challenging for several reasons: (1) very limited numbers of temporal bones are available from older donors to address research questions related to presbyacusis; (2) the auditory nerve is inaccessible to surgical biopsy; (3) the time to fixation of human tissue is often delayed, which can result in deterioration of important proteins; (4) medical and hearing health histories and functional data are lacking from most donors; and (5) few well-established methods are available for studying age-related cellular and molecular changes in human inner ear tissue. These factors have significantly hindered progress in defining the cellular and molecular bases of age-related degeneration in the human inner ear.

In the past two decades, our Hearing Research Program has collected temporal bones at autopsy from donors at MUSC, especially from individuals over 60 years of age. With a collaborative team of scientists, clinicians, and staff from the Departments of Otolaryngology-Head and Neck Surgery and Pathology and Laboratory Medicine, we have acquired multiple inner ear specimens collected and fixed within six hours of death. Drawing from this valuable archive and a “normal aging” animal model, our recent study revealed that myelin-associated spiral ganglion neuron degeneration may play a critical role in age-related hearing loss.

Myelin is an electrical insulation material that forms a sheath around neuronal cell bodies. It is essential for the normal function of the nervous system because it enhances the speed and fidelity of neural conduction. In the mammalian inner ear, the processes of spiral ganglion neurons are enclosed within several layers of myelin sheaths made by Schwann cell cytoplasm. Myelin basic proteins (MBPs) are the major element of the myelin sheath in the nervous system and comprise 30% of the total protein found in myelinating cells. MBP is part of a family of proteins consisting of multiple polypeptide chains. This protein family is the product of a large gene complex called Golli (Genes of OLigodendrocytes Lineage) having 10 exons in humans. Because MBP is essential to the formation of nervous system myelin, it is also referred to as the “executive molecule of myelin.”

Age-related degeneration of myelin and the loss of the myelinated nerve fibers have been seen in several age-related neurodegenerative disorders, including Alzheimer’s disease. Studies have shown myelin degeneration in several regions of patients’ brains, including the cerebral cortex, corpus callosum, and optic nerve. Based on these observations, we hypothesized that an age-related loss of MBP occurs in the auditory nerve and that these changes may be associated with age-related hearing loss. To test this hypothesis, we first characterized the expression pattern of MBP in the auditory nerve using an animal model, aged CBA/Caj mice. CBA/Caj mice provide a widely used “normal aging” animal model in hearing research. These mice show little...
change in auditory nerve function until very late in life; significant auditory brainstem response threshold shifts across a wide range of frequencies are typically not seen until mice are older than 2 years. Electron microscopic observations and MBP immunohistochemical analysis in the aged CBA/CaJ mice revealed that abnormalities of the myelin sheath, such as sheath disruption and reduction of MBP immunostaining, occur prior to a significant loss of spiral ganglion neurons. Changes in MBP immunostaining pattern and the loss of nerve fibers in these mice were associated with ultrastructural changes of the myelin sheath and a significant decline of auditory nerve function.

To determine if these findings are similar in inner ears of older humans, we assessed age-related myelin degeneration and changes of MBP expression in human ear tissues from 13 temporal bones from 10 human donors, which had been acquired previously through our temporal bone donation program. These donors included 4 adults aged 38-46 years (middle-aged group) and 6 adults aged 63-91 years (older group). We determined that MBP was expressed in the auditory nerve of both middle-aged (Figure 1) and older groups. Through comparison of MBP immunostaining patterns and the number of MBP+ nerve fibers in temporal bones from middle-aged and older human donors, we observed an age-related reduction of MBP immunostaining in the spiral ganglion, similar to the results seen in the mouse model.

The density of MBP+ fibers in peripheral processes (within the osseous spiral lamina) and central processes (within the modiolus) declined significantly in the older group as compared to the middle-age group (Figure 2). In addition, spiral ganglion neuron loss was revealed in the auditory nerves of the older group by immunostaining for class III β-tubulin. Taken together, our study provides the first evidence of age-related spiral ganglion neuron degeneration associated with expression abnormalities of a key myelin protein in the human auditory nerve. Further molecular and functional studies of this very abundant protein will continue to determine the causes of myelin degeneration and age-related spiral ganglion neuron loss in the human inner ear.
Michael Moore, M.D., was born and raised in Houston, Texas. He grew up playing sports and participating in Boy Scouts, where he earned the rank of Eagle Scout. Wanting a taste of life outside of Texas, Michael attended Boston College where he lettered three years as a varsity swimmer and graduated Summa Cum Laude with a BS in Biology. Michael returned home to attend the University of Texas medical school in Houston, where he was elected AOA, and married his high-school sweetheart Sarah. During his fourth year, he performed research on robotic head and neck surgery at MD Anderson. After three years of marriage, Michael and Sarah welcomed their daughter Violet to the family. They have enjoyed taking advantage of the beaches, great food, and warm hospitality of Charleston.

Hailing from the Appalachian foothills of Chattanooga, TN, Dr. Alexander Sokohl spent his childhood enjoying the great outdoors and his most revered spot, Lookout Mountain. A loyal Red Bank Lion, he spent his high school years among his best friends as an avid cross country runner, tennis and baseball player before attending Georgetown University on scholarship to study languages and linguistics. During college, he worked with his congressman on Capitol Hill and as a lobbyist in the U.S. Chamber of Commerce. He lived in Ecuador, Spain and Brazil where he pursued his linguistics major. Following college, he accepted a position at the United Nations in New York where he served as a Spanish and Portuguese translator. Alex subsequently transitioned from the legal field to pursue his lifelong dream of medicine by fulfilling his pre-medicine requirements at Johns Hopkins, where he also met his beautiful wife, Margaret Gallagher. Prior to medical school, Alex conducted research at Children’s National Medical Center in Washington, D.C., investigating genetic expression of vanishing white matter diseases. He and his wife both attended medical school at Georgetown University. After four years, they eagerly accepted the opportunity to start their new life in Charleston where they look forward to raising their recently born son, Jacob Nathaniel.

Christopher Ayers, M.D., was born and raised in Columbia, SC. A longtime Clemson fan, he had the pleasure of attending Clemson University for his undergraduate degree where he majored in financial management. From there, he went on to earn his Masters in Public Health from the University of South Carolina. He attended medical school at the Medical University of South Carolina where he was elected into Alpha Omega Alpha and served as president of the organization. He has assisted in multiple research projects in the areas of sinusitis, speech and swallowing, thyroid disease and sleep apnea.

Dr. Ayers and his wife Lauren have been blessed in seven years of marriage and have a precious, spunky two year old at home named Ashley. This fall they will have the blessing of welcoming a new baby girl to their growing family. They love spending time at the beach, pulling for their Clemson Tigers, and enjoying all that the city of Charleston has to offer.

Oswaldo Henriquez, MD
MD: Universidad Central de Venezuela, Escuela Luis Razetti
Residency: Emory University
Special Interests: Rhinology and endoscopic skull base surgery

Stephen Kieran, MD, PhD
MB BCh BAO: University College Dublin
Residency: Royal College of Surgeons in Ireland
Fellowship: Pediatric Otolaryngology - Harvard Medical School
Special Interests: Otology, Neurotology, Pediatric Otology

Mayuri Rajapurkar, MD
MBBS: M.S. Univ. Baroda
Residency: Pramukh Swami Medical College
Fellow: Tata Memorial Hospital M.Ch. HN Oncology
Oncology: Amrita Institute of Med Sci and Research Ctr
Special interest: Microvascular HN Oncology

Meet the Residents: Drs. Michael Moore, Chris Ayers, and Alex Sokohl

MUSC offers otolaryngology fellowships in Head & Neck Oncologic and Reconstructive Surgery, Rhinology and Endoscopic Sinus/ Skull Base Surgery, Pediatric Otolaryngology, and Otology and Neurotology. In addition to an extensive surgical experience, fellows benefit from a multidisciplinary approach by participating in outpatient clinics, rounds, and didactic conferences.
**Faculty**

**Otolaryngology**

**Head & Neck Surgery**

**Oto-Otolaryngology**

Paul R. Lambert, M.D.
Professor and Chairman
Director, Otolaryngology-Neurotology
M.D.: Duke University
Residency: UCLA
Fellowship: House Ear Institute, Los Angeles

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

**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

M. Boyd Gillespie, M.D., M.Sc.
Professor
Director, MUSC Snoring Clinic
M.D., Residency & Fellowship: Johns Hopkins

Joshua D. Hornig, M.D., FRCS(C)
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Director, Microvascular Surgery and Functional Outcomes
M.D. & Residency: University of Alberta
Fellowship: MUSC

**Eric J. Lentsch, M.D.**
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M.D. & Residency: University of Louisville
Fellowship: M.D. Anderson

Barry T. Malin, M.D., MPP
Assistant Professor
M.D.: UC San Francisco
Residency: State University of New York
MPP: Harvard University
Fellowship: MUSC

Roy B. Sessions, M.D.
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M.D.: Louisiana State University, New Orleans
Residency: Washington University School of Medicine, St. Louis

Mary Beth Chalk, MSN, RN, APRN-BC
Nurse Practitioner
MSN: MUSC

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Physician Assistant
MSPAS: MUSC

Ashley Laursen, BSN, RN
Registered Nurse, Program Coordinator
BSN: MUSC

Jennifer R. Page, RN, MSN, NP-C
Nurse Practitioner
MSN: MUSC

**Audiology**

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Director, Audiology
M.A.: Ohio State University

Elizabeth Camposeo, Au.D., CCC-A
Instructor
Au.D.: Northwestern University

Laura A. Droge, Au.D., CCC-A
Instructor
M.A.: Northern Illinois University

Meredith A. Holcomb, Au.D., CCC-A
Instructor, Clinical Coordinator, Cochlear Implant Program
Au.D.: UNC Chapel Hill

Cortney J. Hudak, Au.D., CCC-A
Instructor
Au.D.: University of Akron/Kent State University

Elizabeth A. Poth, M.S., CCC-A
Instructor
M.S.: UNC Chapel Hill

Michelle L. Reiter, Au.D., CCC-A
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Christine C. Strange, Au.D., CCC-A
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Instructor
M.A.: SUNY Plattsburgh

**Maxillofacial Prosthodontics**

Betsy K. Davis, D.M.D., M.S.
Associate Professor
Director, Division of Maxillofacial Prosthodontics
D.M.D.: MUSC

Residency: University of Iowa
Fellowship: M.D. Anderson ; UCLA

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

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

**Facial Plastic & Reconstructive Surgery**

Mary Beth Chalk, MSN, RN, APRN-BC
Nurse Practitioner
MSN: MUSC

Holly L. Drechsler, PA-C
Physician Assistant
MSPAS: MUSC

Ashley Laursen, BSN, RN
Registered Nurse, Program Coordinator
BSN: MUSC

Jennifer R. Page, RN, MSN, NP-C
Nurse Practitioner
MSN: MUSC

**Maxillofacial Prosthodontics**

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Fellowship: UC Davis

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Assistant Professor
M.D.: University of South Carolina
Residency: MUSC
Fellowship: Oregon Health and Science University
**General Otolaryngology & Allergy**

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

- **Robert C. Waters, M.D.**
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  - Residency: Barnes Hospital
  - Washington University School of Medicine

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

- **Claire O’Bryan, ANP-C**
  - Nurse Practitioner
  - MSN: MUSC

**Pediatric Otolaryngology**

- **David R. White, M.D.**
  - Associate Professor
  - Director, Pediatric Otolaryngology
  - Director, MUSC Airway and Aspiration Center for Children
  - M.D.: MUSC
  - Residency: UNC Chapel Hill
  - Fellowship: Cincinnati Children’s Hospital

- **Christopher M. Discolo, M.D., M.S.C.R.**
  - Assistant Professor
  - M.D.: State University of New York, Brooklyn
  - Residency: Cleveland Clinic
  - Fellowship: University of Minnesota / Pediatric ENT Associates

- **Carissa Carie, PNP**
  - Pediatric Nurse Practitioner
  - MSN: MUSC

**Rhinology & Sinus Surgery**

- **Rodney J. Schlosser, M.D.**
  - Professor
  - Director, Nasal and Sinus Center
  - M.D.: Mayo Clinic
  - Residency: University of Virginia
  - Fellowship: University of Pennsylvania

- **Zachary M. Soler, M.D., M.Sc.**
  - Assistant Professor
  - M.D.: Wake Forest University
  - Residency: Oregon Health and Science University
  - Fellowship: Harvard Medical School

- **Brittany Crosby, PA-C**
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**Research**

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

- **Mark A. Eckert, Ph.D.**
  - Associate Professor
  - MUSC Hearing Research Program
  - Ph.D.: University of Florida

- **Kelly C. Harris, Ph.D.**
  - Assistant Professor
  - MUSC Hearing Research Program
  - Ph.D.: University at Buffalo

- **Shaun A. Nguyen, M.D., M.A., CPI**
  - Associate Professor
  - Director, Clinical Research
  - MD & Residency: University College London
  - Fellowship: MUSC

- **M. Rita I. Young, Ph.D.**
  - Professor
  - Head and Neck Research Associate Director for Research, Ralph H. Johnson VA Medical Center

**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

- **Bonnie Martin-Harris, Ph.D., CCC-SLP, BRS-S**
  - Professor
  - Director, ETIVS
  - M.S.: Purdue University
  - Ph.D.: Northwestern University

- **Ashli O’Rourke, M.D.**
  - Assistant Professor
  - M.D.: Medical College of Georgia
  - Residency: University of Virginia
  - Fellowship: Medical College of Georgia

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

- **Fu-Shing Lee, Ph.D.**
  - Assistant Professor
  - MUSC Hearing Research Program
  - Ph.D.: MUSC

- **Lois J. Matthews, M.S.**
  - Instructor
  - MUSC Hearing Research Program
  - M.S.: Purdue University

- **Jennifer K. Mulligan, Ph.D.**
  - Assistant Professor
  - Rhinology & Sinus Surgery
  - Ph.D.: MUSC
The 3rd Annual Emerging Controversies in the Management of Thyroid and Parathyroid Disease
October 12 - 13, 2012, Charleston Harbor Resort & Marina
Lectures and a hands-on lab designed to enable physicians who are actively involved in the care of these patients to become comfortable with the emerging technologies and treatments. Guest speakers: Bryan Haugen, MD (Colorado); F. Christopher Holsinger, MD (Texas)
– Thyroid/Parathyroid Disease course to be held in conjunction with
The 27th Annual F. Johnson Putney Lectureship in Head & Neck Cancer
Free half-day conference that will discuss multidisciplinary management of oral cavity tumors in accordance with National Cancer Institute guidelines and evidence-based literature. F. Johnson Putney Lecturer in Head & Neck Cancer: Mark K. Wax, M.D., F.R.C.S. (Oregon)

Charleston Sleep Surgery Symposium
February 22- 23, 2013 Renaissance Hotel, Charleston
Lectures, round table discussions, and hands-on labs focused on procedures for snoring and sleep disordered breathing. For practicing otolaryngologists. Guest speakers: Lon R. Doles, DDS (South Carolina); Mustafa Gerek, MD (Turkey); Peter J. Koltai, MD, FACS, FAAP (California); Ryan J. Soose, MD (Pennsylvania); David L. Steward, MD (Ohio)

Sinus Masters
March 15 - 17, 2013 Kiawah Island Resort and MUSC Campus
An invitational program for Sinus and General Otolaryngology surgeons.

Spring Temporal Bone Dissection Course
April 19 - 21, 2013 MUSC Campus
Lectures and hands-on labs focused on procedures for chronic ear disease.

Southern States Rhinology Course
May 2 - 4, 2013 Kiawah Island Resort and MUSC Campus
Lectures & hands on labs designed to provide a comprehensive update on the medical and surgical practice of rhinology.

13th Annual Charleston Magnolia Conference
May 31 - June 1, 2013 Charleston Marriott, Lockwood
Two half-day sessions covering the broad spectrum of Otolaryngology - Head & Neck Surgery. Guest speakers: George T. Hashisaki, MD (Virginia); Robert C. Kern, MD (Illinois); Gregory Postma, MD (Georgia)

The Charleston Course:
3rd Annual Otolaryngology Literature Update
July 26 - 28, 2013 Kiawah Island Resort
Designed to help the busy clinician stay current with our faculty members’ expert critical assessments of over 100 of the past year’s most relevant, current evidence-based publications.

Head & Neck Oncology Sea to Summit
October 17-19, 2013 Kiawah Island Resort
Co-hosted with the University of Utah