This fall we review two new additions to the Department of Otolaryngology/Head and Neck Surgery at UNC. Dr. Trevor Hackman, of the Division of Head and Neck Oncology, has developed an in-office procedure clinic for head and neck ultrasonography and an operative practice of transoral laser microsurgery.

**Ultrasonography**

One important advanced technology used in our Head and Neck clinic is ultrasound and ultrasound-guided needle biopsy. In July 2010, Dr. Hackman was referred a patient with a parotid mass which had been sampled twice by fine needle aspiration, both with non-diagnostic results. The clinical suspicion was high, and therefore the patient was seen in Dr. Hackman’s ultrasound clinic for planned ultrasound-guided fine needle aspiration. A hypoechoic deep parotid mass with ill-defined borders was visualized on ultrasound, and successfully sampled with fine-needle aspiration, the cytology report of which revealed adenoid cystic carcinoma. This critical piece of information allowed for better surgical planning, and demonstrated the power of head and neck ultrasonography.

In the clinic, Dr. Hackman has established a dedicated head and neck procedure-based ultrasound clinic. While Drs. Carol Shores and Mark Weissler have been performing ultrasound guided procedures for years, the Department has now created a clinic to more efficiently serve patients in need of ultrasound-guided fine needle aspirations. Dr. Hackman reports, “Ultrasound is a valuable and essential tool for head and neck surgeons, as it offers a radiation-free, highly accurate assessment of the neck compartments, salivary glands and thyroid gland, with the added benefit of accurately and expeditiously allowing for directed fine needle aspiration of concerning lesions.” Drs. Hackman, Shores and Weissler use ultrasonography to sample nodules, evaluate lymph nodes and/or neck mass, some of which are interpreted as inconclusive on standard MRI and CT scans.

The ultrasound is a vital, inexpensive tool for surgeons. Often the ultrasonographic appearance of a lymph node or mass will alert one to the presence of pathology, and when unclear, the ease of guided fine needle aspiration streamlines patient care. During an era of health care reform and concerns over the “cost of medicine,” ultrasonography may be not only the low-cost alternative to CT, MRI and PET scans, but also a more accurate diagnostic tool with the added benefit of providing expeditious patient care. Traditionally, after a doctor’s visit, a patient would require a referral for an ultrasound, then a referral for an ultrasound-guided FNA, if pathology was seen on the screening ultrasound, and eventually a follow up to discuss the results. This process of 4 office visits often could take multiple weeks and was completely out of the control of the surgeon and patient. Our practice at UNC offers the ability to streamline care so that patients have at maximum 2 visits and often a diagnosis in less than a week. The efficiency in patient care not only gives patients more peace of mind and satisfaction, but also “costs less” and results in fewer visits (fewer copays) and fewer days of missed work.

In addition, ultrasound can be used as a surgical “road map” for a surgeon prior to neck dissections, parathyroidectomies, etc., and as tool to monitor the post-treatment neck. Again, the advances in medical technology have made in-office ultrasounds affordable and possible. The image quality continues to improve, and portable laptop ultrasounds possess all the necessary capabilities and resolution to make in-office ultrasounds feasible. Dr. Hackman is pursuing research projects related to the applicability of head and neck ultrasonography within the diagnostic algorithm of working up cancer patients.

**Transoral Laser Microsurgery (TLM)**

In September 2009, Dr. Hackman was referred a middle-aged smoker with throat pain, who was discovered to have a cancer within the left supraglottis. He was presented options for chemoradiation versus transoral laser microsurgery.

Dr. Trevor Hackman performs ultrasound-guided fine needle aspiration of a thyroid nodule, as Dr. Carol Shores watches. The suspicious thyroid nodule had been discovered on a cancer screening chest CT.
Pulmonary Function Tests and modified barium swallow study were performed preoperatively and found to be normal.

After a long discussion with the patient, we elected to proceed with surgery. The patient was taken to the operating room for transoral laser supraglottic laryngectomy and bilateral neck dissection. Following TLM principles, the specimen was divided into quadrants, splitting through the tumor-host interface, and was removed in multi-bloc fashion.

Postoperatively, pathology revealed a negative margin resection of a T2N0 squamous cell carcinoma of the supraglottis. The patient returned to a completely normal diet by post-op week 3, and required a nasogastric tube for feeding for only 7 days. He never required tracheostomy, and maintained a normal voice throughout. He was back to work 2 weeks postoperatively, handling heavy machinery with minimal functional deficits; he was able to perform his job fully. He has also successfully quit tobacco during this process, despite his wife still smoking.

Transoral laser microsurgery is an operative evolution of surgically managing aerodigestive tract primary tumors popularized by Wolfgang Steiner in Germany. While around since the 1970s, TLM has only recently caught on in select places in the United States, thanks to the advancement in medical technology. Through a minimally invasive trans-oral approach, tumors can be completely removed while minimizing damage to surrounding normal tissue, thereby minimizing morbidity to the patient. While the technique has become a common treatment option throughout Western Europe, it has only recently started to gain attention in the United States, where chemoradiation has replaced traditional open surgery.

Only a few centers in the United States have established comprehensive transoral laser microsurgery practices and training programs. Dr. Hackman received his fellowship training in transoral laser microsurgery under Dr. Bruce Haughey at Washington University in St. Louis. He has now brought that experience to the University of North Carolina at Chapel Hill as part of our growing minimally invasive head and neck cancer program, which also includes transoral robotic surgery and endoscopic skull base surgery, making UNC a premier minimally invasive head and neck cancer program on the east coast.

The rationale behind TLM is that tumor spread is often predictable and can be traced surgically. The key principle of transoral laser microsurgery is identifying the tumor-host interface (leading front of the tumor). By doing so, one can follow the tumor, extirpating it in “multi bloc” fashion, much akin to the technique used for Mohs surgery or endoscopic skull base surgery. This approach enhances tumor removal with tight control of the margins, while limiting the unnecessary sacrifice of normal tissue, which is the key to a patient’s early and significant recovery of function.

This technique is applicable to cancers of the oral cavity, oropharynx, larynx and hypopharynx, and is limited primarily by the ease of transoral endoscopic access and the patient’s functional status. We routinely perform an assessment of pulmonary and/or swallowing function pre-operatively, as patients with compromised function are considered poor surgical candidates. There are a variety of scopes and retractors now available to obtain access to these tumors. A carbon dioxide laser fashioned to the microscope on a micromanipulator is often used for the resection in the larynx and hypopharynx.

Again, recent developments in medical technology have improved outcomes with transoral laser microsurgery, particularly within the oropharynx. The introduction of the Omniguide CO2 laser fiber has proved to be a valuable tool in tumor extirpation, particularly within the oropharynx. The fibers and handpieces allow for controlled dissection and the ability to operate beyond line-of-sight, which allows one, for example, to reach corners of the oropharynx...
Heads Up

Dr. Carol Shores was at Kamuzu Central (KCH) Hospital in Malawi in August to meet five new PGY1 general surgery residents, in addition to the three rising PGY2s. She traveled to Malawi with Dr. Anthony Charles, of UNC Trauma Surgery. Drs. Shores and Charles met with surgeons at the Malawi College of Medicine in Blantyre and are working with them to secure full five-year accreditation for the KCH Surgery Residency from the College of Surgeons of Eastern, Central and Southern Africa (COSECSA).

Dr. Shores is working with Dan Olson, MD, of UNC Pediatrics, who is in Malawi for a year to oversee a phase 1 clinical trial of valacyclovir and cyclophosphamide in children with Burkitt lymphoma. The trial is set to begin in October. Dr. Shores is also supervising Lindsey Wolf MS4 (UCSF) in continued data collection for the Malawi-KCH Cancer Database, which now has over 700 patients enrolled. Ms Wolf is beginning a new project examining the epidemiology of esophageal cancer in Malawi.

In the photo above, left to right: Drs. Enoch Ludzu (PGY1), Judith Mkwaila (PGY1), Tiymike Chilunjika (PGY2), Jared Tomlinson (UNC PGY3), Boston Munthali (PGY1), Gift Mulima (PGY2), Kumbukani Manda (PGY1), Carol Shores, Rahim Ibrahim (PGY2), and Anthony Charles (UNC General Surgery). Not pictured: Drs. Chifundo Kajombo (PGY1), and Javeria Qureshi (UNC PGY2).

UNC Otolaryngology
Global Health Update

The marriage of medical technology and surgical technique has produced a viable and valuable treatment option for patients. Another less-often discussed and slightly more controversial advantage of transoral laser microsurgery is the ability to deliver tolerable, yet maximal, trimodality therapy. Trimodality therapy with traditional open surgical approaches, while oncologically effective, historically has resulted in high morbidity to the patient, which was the driving force for the almost universal adoption of chemoradiotherapy as the primary modality treatment for oropharyngeal and laryngeal cancers. Transoral laser microsurgery is unique in its ability to minimize toxicity to the patient, while conferring oncologic control of the margins. The majority of the transoral laser microsurgery population, whose pathology necessitates post operative radiation therapy with or without chemotherapy, have recovered full functional status prior to starting their adjuvant therapy, and in many cases adjuvant therapy windows and doses can be de-intensified without compromising survival or control. Xerostomia rates can be reduced, and tracheostomy and gastrostomy tube rates are often lower in transoral laser microsurgery studies when compared to chemoradiotherapy studies.

Finally, TLM is also applicable in some cases of salvage surgery, with the same benefits listed previously. Dr. Hackman had another patient referred for a base of tongue recurrence after induction chemotherapy, followed by full course curative-intent chemoradiotherapy and right radical neck dissection which resulted in a right vocal cord paralysis secondary to vagus sacrifice. He had a large recurrence within the deep intrinsic musculature of the tongue, but was swallowing without aspiration on preoperative swallow study despite his prior vocal cord paralysis. The patient was told his only option was a combined total glossectomy - total laryngectomy. He then met with Dr. Hackman, who offered a transoral laser salvage excision via a midline glossectomy approach.

The patient had a successful margin-negative excision of his tumor, and while he did require intraoperative tracheostomy and nasogastric tube, he was eventually decannulated 2 months later and cleared for an oral diet. His main limitation is a significant dysarthria, which has been improving since surgery and was initially better than would be attainable with the best laryngectomy/glossectomy reconstruction. He remains disease free, a year out from surgery.

Dr. Hackman’s research interests include clinical outcomes research in head and neck oncology, and he is developing a prospective analysis of transoral laser microsurgery in an era of chemoradiation, with the focus on survival and morbidity.
As the UNC Department of Otolaryngology/Head and Neck Surgery grows, there is a clear opportunity for excellent training at the fellowship level. We now have four fellowship programs, offering the highest quality training in pediatric otolaryngology, rhinology and skull base surgery, head and neck oncology, and neurotology.

Dr. Austin Rose serves as the Director of the Pediatric Otolaryngology Fellowship Program, which began in 2009 with Dr. Laura Rosenthal as our first fellow. After a very successful year, Dr. Rosenthal completed her fellowship here at UNC and went on to Chicago where she joined the faculty as an Assistant Professor at Loyola University. After graduating from our residency program, Dr. Alisha West followed Dr. Rosenthal as the next fellow in July of 2010. As the only Pediatric Otolaryngology Fellowship in the state, the program continues to bolster the Division’s position as the premier group for pediatric otolaryngology training in North Carolina. The University is home to the North Carolina Children’s Hospital – ranked ninth by U.S. News & World Report for the care of children with respiratory disorders. Multi-disciplinary centers at UNC include the N.C. Children’s Airway Center, the UNC Craniofacial Center and the UNC Pediatric Cochlear Implant Team, which offer pediatric otolaryngologists entering the field many ways to get involved and expand upon their residency training. Fellows also benefit from a significant experience in cleft lip and palate care through the Division of Plastic and Reconstructive Surgery. With five full-time faculty and approximately 2000 cases per year in the Children’s Hospital OR and Ambulatory Surgery Center outpatient operating rooms, the position offers a great deal of clinical and operative experience.

The Division of Otolaryngology/Neurotology has opened and filled the position of a Neurotology Fellow. Dr. Oliver Adunka will serve as the Fellowship Director. The fellowship will provide the unique opportunity to train with the Department’s busy neurotologists, Drs. Craig Buchman, Harold Pillsbury, and Oliver Adunka. We are very fortunate that we were able to attract Benjamin Wei, MD, PhD, FRACS, who will start this position in April 2011. Dr. Wei is in the process of completing his training in Australia. He is an expert in cochlear implantation and has established animal models on bacterial meningitis after cochlear implantation, which serve as the basis of our understanding. Dr. Wei will be featured in a future issue of this publication.

The new Rhinology and Skull Base Surgery Fellowship begins on July 1, 2011. The fellowship faculty includes the co-directors, Drs. Adam Zanation and Charles Ebert, as well as Division Chief, Dr. Brent Senior. This one-year fellowship program provides comprehensive training in the medical and surgical management of sinonasal inflammatory disease, anterior and central skull base lesions (endoscopic and/or open management), allergic disease, and orbital pathology. Emphasis during training is also placed on research endeavors that range from basic science translational work to clinical trials. This fellowship will provide a high-quality, broad-based training that will impart fellows with the knowledge and expertise to develop a successful tertiary Rhinology/skull base surgery practice. We proudly announce that Mitchell R. Gore, MD, PhD, has been accepted as the first fellow, following completion of his residency at UNC in 2010.

The Department has also opened an Advanced Head and Neck Oncology Fellowship starting July 1, 2011. Co-directors of the fellowship, Drs. Trevor Hackman and Adam Zanation, are pleased to offer this unique one-year opportunity, which will provide the highest quality training in the medical and surgical management of all areas of Head and Neck Oncology. This includes traditional ablative aerodigestive tract tumor surgery, transoral laser microsurgery, transoral robotic surgery, endocrine surgery, skull base oncology, facial reconstructive surgery and microvascular surgery. Other faculty members include: Drs. Mark Weissler, William Shockley, and Carol Shores, as well as Drs. Eric Halvorson and Kamil Erfanian from the Department of Surgery, Division of Plastic and Reconstructive Surgery and Surgery of the Hand.
Moving On: Two Retirements and a Relocation

After 41 years of mentoring medical students and residents in the Otolaryngology laboratories at UNC, Jiri (“George”) Prazma, MD, PhD, retired from our Department on June 30, 2010. Dr. Prazma has touched many lives, significantly impacting the future careers of those he has shepherded, providing the foundation for their research in Otolaryngology. Over the course of his career, Dr. Prazma helped to train an enormous number of students and residents, many of whom have pursued careers in academic medicine. Most projects have investigated physiological mechanisms related to hearing, and have dealt with a wide range of topics including active ion transport, cochlear blood flow, effects of diabetes on hearing, and mechanisms of hair cell loss. Dr. Prazma has been aptly named the Father of ENT Research at UNC. His accomplishments have been remarkable and his influence has been wide reaching. He will be missed as much for the force and warmth of his personality as the incredible productivity of his research career. The Department is grateful for its long and happy association with Dr. George Prazma.

On August 31, 2010, Judith Miles, RN, retired after 35 years of state service (31 years with ENT). Judy came on board in 1979, working as an allergy nurse in the ENT Allergy Clinic at UNC alongside Libby Drake, RN, and later transitioned to our clinic at Carolina Pointe in 2005. Judy has been an integral part of the Department and the ENT Clinic. As Dr. Senior said, “Her outstanding skills combined with her wonderful patient rapport made her a wonderful asset.” She has seen thousands of patients over the years, and said that her patients were the best part of her job. On July 22, members of the Department were invited to a luncheon in the clinic to bid Judy farewell and best wishes. Judy will be greatly missed by everyone! She plans to enjoy more time with her children and seven grandchildren. She has moved to an active community in Raleigh, where she is already having fun playing cards and making new friends. Having already traveled extensively abroad, Judy plans to spend more time exploring the rest of the United States.

Marion E. Couch, MD, PhD, left UNC and relocated to Burlington, Vermont, where she has become the Chief of the Division of Otolaryngology-Head & Neck Surgery at the University of Vermont and the Associate Vice President of Operations of Fletcher Allen Health Care Systems. During her seven-year tenure at UNC, Dr. Couch was active clinically and in the research laboratory. She studied the effects of cancer cachexia on patients with head and neck cancer. She was a member of UNC’s Academy of Educators and mentored numerous medical students and residents in her lab at Lineberger through the years. At the meeting of the American Academy of Otolaryngology-Head and Neck Surgery this October, she was presented a Distinguished Service Award. Dr. Couch will be sorely missed by her patients and colleagues. A going away party was held at Top of the Hill on August 27th, and many of the attendings, including Dr. Pillsbury, and the nursing and OR staff were in attendance. A professional photographic portrait had been taken of her as part of the “New Face of Cancer” campaign for the lobby of the new NC Cancer Hospital, and we presented this to her at the farewell gathering.

Carolina Kids Classic Champs!

Dr. Harold Pillsbury and his team won the 2010 Carolina Kids Classic, held on June 24th at Finley Golf Course in Chapel Hill. The foursome included Dr. Madison Clark (UNC OHNS resident, 2000), and friends of the Department, Gary Horne and Jim Johnson. Since its inception in 1988, the Carolina Kids Classic has raised over $3 million for children across North Carolina for three remarkable charities – the North Carolina Children’s Hospital, The Childhood Trust, and the Ronald McDonald House of Chapel Hill. This year, $180,000 was raised to help children. Despite the heat, Dr. Pillsbury’s foursome was able to score 104 (40 under par) in a modified two-ball low net format. This was a Classic Record!

Left to right: Gary Horne, Madison Clark, Rick Pillsbury, and Jim Johnson.
This has truly been an exciting year for the Department of Otolaryngology/Head and Neck Surgery here at UNC. In the “Best Hospitals 2010-11” issue of US News and World Report, more than 1,400 hospitals are listed in the category of best places to go for care of the ears, nose, and throat. The University of North Carolina ranked #21 in the country, and we are #1 in North Carolina!

Scott Shadfar, MD, has won the 2010 Edgar C. Garrabrant, II, MD Award for his work on cancer cachexia. Dr. Garrabrant was a North Carolina otolaryngologist who earned his bachelors and medical degrees at UNC-Chapel Hill, where he also completed his residency training in Otolaryngology/Head and Neck Surgery in 1971. This award was created in his name in 2003 after his death, to pay him tribute and is awarded to the winning presenting resident at the North Carolina Society of Otolaryngology and Head and Neck Surgery (NCSOHN) annual meeting. With the help of Drs. Marion Couch, Xiaoying Yin, Monte Willis, Kibwei McKinney, Lisa Weinstein, and Denis Guttridge, Dr. Shadfar was able to show reversal of cancer cachexia in a mouse model using the novel compound resveratrol. This was the first time a UNC resident has won the award.

Dean William Roper has announced several key leadership appointments in the UNC School of Medicine. “Taken together, these changes are designed to equip the School of Medicine for the next phase of our work together, and to enable us to be successful in our quest to become the nation’s leading public school of medicine and leading public academic medical center,” stated Roper. Among these new assignments, Amelia F. Drake, MD, was appointed Executive Associate Dean for Academic Programs of the UNC School of Medicine. In this role, Dr. Drake will directly assist Marshall Runge, MD, PhD (Executive Dean), Kevin Fitzgerald, MPA (Vice Dean for Finance and Administration), and the Dean with key tasks in leading the School of Medicine academic initiatives.

The role of Chief of the Division of Pediatric Otolaryngology has been passed on to Carlton J. Zdanski, MD. Dr. Zdanski is an Associate Professor in the Department, and also serves as Surgical Director of the North Carolina Children’s Airway Center.

Craig A. Buchman, MD, has received the Deafness Research Foundation Centurion Grant Award for $25,000 for his project entitled “Auditory Neuropathy Spectrum Disorder in Children.” This grant will help fund the collaborative work of Drs. Buchman, Shuman He, John Grose, Patricia Roush, Holly Teagle, and Carlton Zdanski. The overarching goal of this project is to facilitate appropriate intervention among these children by identifying functional biomarkers that can predict successful use of a particular intervention strategy (hearing aids or cochlear implants).

The Otolaryngology portion of the “Brain and Behavior” course for MSII students, coordinated by Oliver F. Adunaka, MD, won the Sophomore Basic Science Course Award in 2010. Established by the sophomore class in 1985, this award recognizes a course in the second-year basic sciences that was effectively organized, skillfully taught, and contributed significantly to the education of second-year medical students. Other faculty from the Department who instructed in this course included Drs. Charles Ebert, Austin Rose, Alisha West, and Adam Zanation.

At the 2010 Annual Meeting of the American Academy of Otolaryngology-Head and Neck Surgery Foundation, awards were presented to members in recognition of their volunteer contributions. Dr. Adam Zanation, having earned 10 volunteer service points, received an Honor Award. The Distinguished Service Award is given to recognize volunteer service beyond the level of an Honor Award, after earning 50 points. These awards were presented to Drs. Marion Couch and Brent Senior.

First-year resident Grace G. Kim, MD, has published a paper this fall. Drs. Kim, Weinstein, Quon, O’Malley, and Cohen co-authored “Selective neck dissection and deintensified postoperative radiation and chemotherapy for oropharyngeal cancer: a subset analysis of the University of Pennsylvania transoral robotic surgery trial,” which appears in the September 2010 issue of The Laryngoscope.

The Newton D. Fischer Society Temporal Bone Dissection Award is given yearly to two residents who demonstrate the best dissection of a temporal bone. The winners in 2010 were Drs. Kibwei McKinney and Joseph Roche.

Two awards in honor of William W. Shockley, MD, and Mark C. Weissler, MD, are given annually to deserving residents in Otolaryngology/Head and Neck Surgery. In 2010, Dr. Keith Ladner received the Shockley Silver Owl Award for Excellence in Teaching, and Dr. Rose Eapen won the Weissler Ironman Award for Extra Effort.

Robert A. Buckmire, MD, was an invited speaker at Voice 2010: The 4th World Voice Congress in Seoul, Korea, in September, where he presented “Transnasal Esophagoscopy.” The meeting brought together clinicians, therapists, and scientists of the voice science and therapeutic fields from all over the world to share their cutting-edge expertise and knowledge.

Drs. Carlton Zdanski and David White co-directed the Carolinas’ Pediatric Airway Course at UNC in Chapel Hill, October 21-22. This was a two-day course focused on endoscopic and open airway surgical techniques, including use of a live animal model, endoscopic lab utilizing human cadaveric specimens, and a simulation model of airway management. Dr. White graduated from our residency program in 2003 and is now Director of Pediatric Otolaryngology at the Medical University of South Carolina.

The UNC Voice Center sponsored a voice conference on August 27, 2010, called “Demystifying Management of Voice Disorders.” Members of the team presented along with guest lecturers. Dr. Robert Buckmire presented on “ENT/MD Medical/Surgical Management of Voice Disorders.” Speech pathologist, Ellen Markus, presented on “Speech Pathology Evaluation With and Without Objective Equipment,” and Linda Hube taught voice therapy techniques in a lecture/small group practice format. Guest lecturers included Mary Klimek, senior speech pathologist at Massachusetts Eye and Ear Infirmary and Bonnie Raphael, resident coach for PlayMakers Repertory Company at UNC-CH. In addition to the presentations, there were equipment demos of two different software programs for voice assessment and our voice experts participated in a panel called “Ask the Experts: Professional Voice Trainers Tell How They Do It,” a lively and enjoyable way to end the day.

“My father wore bow ties,” Pillsbury says. “He was a chemist. He taught me how to tie one without a mirror. I’ve been collecting bow ties for 35 years. I’ve got at least 200.”

In Pillsbury’s speciality, a four-in-hand might get sneezed upon. “The cootie level is off the charts,” he says. Or splashed on when he lances a boil. “This is nasty business,” he says. Which Pillsbury makes more pleasant by charming patients and colleagues with solids, dots, patterns, paisleys, golf clubs and balls. They react positively, which pleases the gregarious Chapel Hill physician with a home in Pinehurst.

Most ties are natural silk, which frays from whisker contact. Woven silk, Pillsbury says, lasts forever. Either way, “A sweaty guy can screw one up pretty quickly.”

Wrinkles in the middle are OK. In fact, a too-perfect bow tiesmacks of clip-on, the anathema to any wearer over age 8.

Pillsbury orders from Beau Ties Ltd. in Vermont and patronizes Carrot & Gibbs, Ben Silver and Southern Proper.

This doctor echoes other physicians, teachers and businessmen who express themselves through an ancient fashion accessory: “There are only a few things a man can do to make a statement if he’s in a conservative profession.” Consider it done.
The Department of Otolaryngology/Head and Neck Surgery is proud of its skilled faculty and staff who are committed to providing patients with the highest quality health care. Get to know us!

The Department of Otolaryngology/Head and Neck Surgery
Harold C. Pillsbury, MD, FACS, Chair, Thomas J. Dark Distinguished Professor of Otolaryngology/Head and Neck Surgery
Craig A. Buchman, MD, FACS, Vice Chair for Clinical Affairs
Brent A. Senior, MD, FACS, Vice Chair for Academic Affairs
Carolyn Hamby, Clinical Academic Departmental Administrator

The Division of Head and Neck Oncology, Cancer Research
Mark C. Weissler, MD, FACS, Professor and Chief, Joseph P. Riddle Distinguished Professor of Otolaryngology/Head and Neck Surgery
William W. Shockley, MD, FACS, Professor
Carol G. Shores, MD, PhD, Associate Professor
Xiaoying Yin, MD, Assistant Professor
Adam M. Zanation, MD, Assistant Professor
Trevor G. Hackman, MD, Assistant Professor
Andrew F. Olshan, PhD, Professor
D. Neil Hayes, MD, MPH, Assistant Professor
Brian K. Kanapkey, Speech Pathologist

The Division of Pediatric Otolaryngology
Carlton J. Zdanski, MD, FACS, FAAP, Associate Professor and Chief
Amelia F. Drake, MD, FACS, Newton D. Fischer Distinguished Professor of Otolaryngology/Head and Neck Surgery
Austin S. Rose, MD, Associate Professor
Alisha N. West, MD, Pediatric Otolaryngology Fellow

The Division of Facial Plastic and Reconstructive Surgery
William W. Shockley, MD, FACS, Professor and Chief, W. Paul Biggers Distinguished Professor of Otolaryngology/Head and Neck Surgery

The Division of Rhinology, Allergy, Sinus Surgery
Brent A. Senior, MD, FACS, Professor and Chief
Harold C. Pillsbury, MD, FACS, Professor
Adam M. Zanation, MD, Assistant Professor
Charles S. Ebert, Jr., MD, MPH, Assistant Professor
Julia S. Kimbell, PhD, Associate Professor

The Division of Otolaryngology/Neurotology and Skull Base Surgery
Craig A. Buchman, MD, FACS, Professor and Chief
Harold C. Pillsbury, MD, FACS, Professor
Oliver F. Adunka, MD, Assistant Professor

The Division of Voice and Swallowing Disorders/UNC Voice Center
Robert A. Buckmire, MD, Associate Professor and Chief
Mark C. Weissler, MD, FACS, Professor
Ellen S. Markus, MA, CCC-SLP, DMA, Coordinator
Linda F. Hube, MS, CCC-SLP, Speech Pathologist

Sleep and Snoring Surgery
Brent A. Senior, MD, FACS, Professor

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Emily Buss, PhD, Associate Professor
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Douglas C. Fitzpatrick, PhD, Assistant Professor
Patricia A. Roush, AuD, Associate Professor, Director, Pediatric Audiology

The Division of Research Training and Education
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The Adult Cochlear Implant Program
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English R. King, AuD, CCC-A, Audiologist
Margaret T. Dillon, AuD, CCC-A, Audiologist

W. Paul Biggers Carolina Children’s Communicative Disorders Program
Craig A. Buchman, MD, FACS, Professor, Admin. Director
Harold C. Pillsbury, MD, FACS, Professor, Executive Director
Carlton J. Zdanski, MD, FACS, Associate Professor
Oliver F. Adunka, MD, Assistant Professor
Holly Teagle, AuD, Assistant Professor, Program Director
Hannah R. Eskridge, MSP, CCC-SLP, LSLS Cert. AVT, Clinical Instructor, Director of CASTLE

WakeMed Faculty Physicians
Michael O. Ferguson, MD, Associate Professor and Chief
Brett E. Dorfman, MD, Assistant Professor
Esa A. Bloedon, MD, Assistant Professor
Allen F. Marshall, MD, Assistant Professor

Residents:

- Mitchell R. Gore, MD, PhD
- Paula J. Harmon, MD
- Michael E. Stadler, MD
- Deidra A. Blanks, MD
- Rupali N. Shah, MD
- Joshua B. Surowitz, MD
- Maher N. Younes, MD
- Rose J. Eapen, MD
- Jessica K. Smyth, MD
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- Yu-Tung Wong, MD
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- Alexander Farag, MD
- John P. Dahl, MD, PhD, MBA
- Joseph P. Roche, MD
- Kilweii A. McKinney, MD
- Deepak R. Dugar, MD
- Anna Hang, MD
- Anthony O. Okobi, Jr., MD, PhD
- Baishakhi Choudhury, MD
- Grace G. Kim, MD