The LSU Department of Otolaryngology - Head and Neck Surgery

A DECADE IN REVIEW
AND A VISION FOR OUR FUTURE



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A Message from the Chairman

To Our Patients, Colleagues, Alumni and Friends,

It would be a great understatement to say that the LSU Department of Otolaryngology-Head and Neck Surgery has successfully navigated an immensely complex decade of change. When Hurricane Katrina came to visit in 2005, our home city of New Orleans was devastated, and the entire Gulf Coast region was forever changed. There were immense obstacles to overcome, and our future was very uncertain.

By maintaining our focus on achieving excellence in each of our core missions – Patient Care, Education, Research, Innovation, and Community Service – our department has not only survived; we have thrived and established outstanding programs in all of these arenas. By virtue of our restructuring into a unique "Regional Program", which now serves a very broad geographic territory, we have been able to accomplish a number of truly exceptional things, as evidenced by landmark achievements and accolades we have received from a wide variety of local, regional and national organizations, including *U.S. News & World Report*, The American Academy of Otolaryngology, *Best Doctors of America*, and many others.

It gives me great pleasure to be able to provide this "Decade In Review" document, and to share with you the current state of our Department and its goals and plans for the future. We thank you for your trust in us.

Daniel W. Nuss, MD, FACS

George D. Lyons Professor and Chair

Department of Otolaryngology-Head and Neck Surgery

Louisiana State University School of Medicine







Health Sciences Center
Department of Otolaryngology

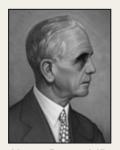
Looking Back:

A Brief History of the LSU Otolaryngology Program

The LSU Department of Otorhinolaryngology was founded in 1931, as one of the charter surgical departments in the brand-new Louisiana State University School of Medicine In New Orleans. Thus, we have now been in existence for more than 8 decades, and are actively and ambitiously planning for the long-term.



Department Leadership, 1931-present:



Homer Dupuy, MD 1931-1936



George Taquino, MD 1936-1953



Valentine Fuchs, MD 1953-1965



Irving Blatt, MD 1965-1970



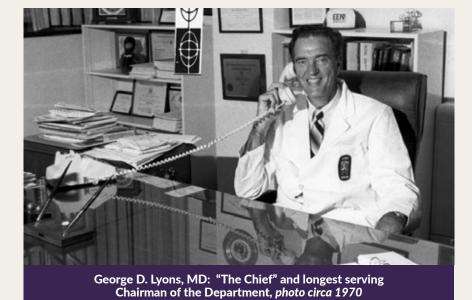
George Lyons, MD 1970-1993



Mervin Trail, MD 1993-1994



Daniel W. Nuss, MD 1995-present



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From its inception, the LSU Department of Otolaryngology has been closely linked with Charity Hospital of New Orleans, one of the oldest and grandest hospitals in the United States. In its heyday, Charity was one of the largest and most respected hospitals in the world, with a bed capacity of 1,200 and nearly 1 million square feet of space. This extremely busy metropolitan hospital served as the tertiary referral center for a statewide network of public and private hospitals. As such, it was the point of care for literally millions of patients over decades of time. It was a place in which even the rarest-of-the-rare and most desperate problems could be treated, and it provided an ideal venue for the education of generations of future doctors.

This association with Charity Hospital helped the LSU Department of Otolaryngology to establish its longstanding reputation as a program



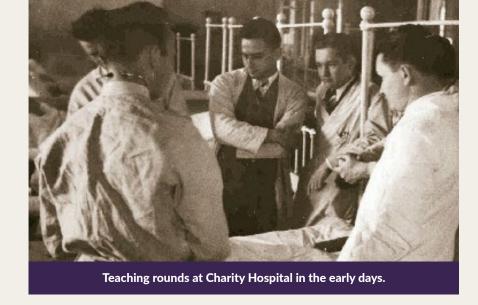
Charles I. Berlin, PhD, founder and first director of the Kresge Hearing Research Laboratory of the South

that trains excellent clinicians and surgeons. In fact, the legacy of LSU doctors in general, and of LSU-ENT doctors in particular, can be summarized simply by saying that these are very well-trained, dedicated, capable, confident and compassionate doctors. Even though the Charity system has drastically changed in recent years, the Department still embraces its historic mission of providing expert care for all patients in need, and proudly upholds this legacy.

As the clinical reputation of the Department grew, so did its academic and scholarly accomplishments. Since 1967, the Department has served as the home of the Kresge Hearing Research Laboratory of the South. Conceptualized during the chairmanship of Dr. Irving Blatt, and founded and directed by Charles I. Berlin, PhD, the Kresge Lab became a research powerhouse, and generated volumes of groundbreaking contributions to the auditory and otologic literature. As evidence of the quality of its work, Kresge enjoyed more than 35 years of continuous NIH funding, including RO1 grants, Program Project grants, and various training grants in addition to numerous private grants.

Hundreds of published articles in the literature (including elite journals such as *Nature, Science, and The New England Journal of Medicine*), along with thousands of scientific presentations, and a legion of research trainees who have gone on to major academic accomplishment: these are the legacies of Dr. Berlin's Kresge Lab at LSU. The Kresge team literally helped to define the physiologic, anatomic, and pharmacologic foundations of modern Hearing Science.

Under Drs. George Lyons and Merv Trail, the clinical programs of the Department expanded significantly. Dr. Lyons established



LSU as home to one of the first three Cochlear Implant Teams in the nation, and its members, including Dr. Lyons, Dr. Herbert Marks, and Dr. Daniel Mouney, collaborated in the pioneering surgical treatment of deafness. Clinical observations in these early implant patients, along with scientific research from the Kresge Lab, were instrumental in future modifications of cochlear implants that are now a mainstay in hearing restoration for deaf patients.

Dr. Trail, who came to LSU from Johns Hopkins, had learned thyroid surgery and head and neck cancer surgery from General Surgery mentors, and when he arrived in New Orleans he incorporated these new skills into the curriculum for

Otolaryngologists, which at the time was a controversial break from tradition. This interdisciplinary mindset broadened the boundaries of the field, and Dr. Trail became widely known for surgical innovation and dedication to medical education. He also became an adopted son of New Orleans and was a prominent civic leader. He founded the New Orleans Sports Foundation and was instrumental in bringing national events to the city, such as the Super Bowl, the NCAA Final Four, and the Republican National Convention. He also founded the Stanley S. Scott Cancer Center and ultimately became Chancellor of the LSU Health Sciences Center.



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The first Kresge Lab, which occupied two World War II barracks buildings two miles from the main medical school in New Orleans.

History of the LSU Otolaryngology Program

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Mervin L. Trail, MD, Chairman 1993-94

The Department now has two fully funded Endowed Chairs in the names of Dr. Lyons and Dr. Trail, and these endowments help to sustain their legacies, and to support the educational mission.

From 1995 to 2005, under Dr. Nuss' leadership, the Department significantly expanded its clinical activities and broadened its faculty, offering increasingly specialized services in Head and Neck Oncology, Head and Neck

Reconstruction, Pediatric Otolaryngology, Laryngology, Rhinology, Neurotology and Skull Base Surgery (detailed later in this monograph). This decade of unprecedented growth was brought to a sudden halt in 2005 with the arrival of Hurricane Katrina (see next section), but out of the devastation, the department made a remarkable recovery and is now a major regional referral destination for patients who have problems that require complex, interdisciplinary care.

In concert with this expanding clinical expertise, the Department's academic performance has been outstanding. Since 1994, graduates of the LSU Otolaryngology residency have achieved 100% success in the rigorous board certification process of the American Board of Otolaryngology. Our resident physicians perform consistently above national norms on required annual In-Training Examinations, and in a remarkable show of tenacity and resilience, they achieved a group ranking in the top 10% of the nation in 2006, the very first year after Katrina.

In keeping with our charter as a state university, the Department has trained approximately 70% of the ENT physicians in Louisiana, and continues to offer regular Continuing Medical Education for community physicians. Many of our Alumni actively participate in the education of current residents. Our LSU ENT Alumni Association helps foster collegial relations among otolaryngologists state-wide, and Alumni donations help sponsor some of the costs of resident education.



DISASTER STRIKES: A DECADE OF CHANGE 2005 to Now

In August 2005, Hurricane Katrina, the worst natural disaster in U.S. history, brought massive flooding and billions of dollars of damage to New Orleans, much of Southeast Louisiana, Mississippi and the U.S. Gulf Coast. It is estimated that 1,833 people died in the floods, and thousands more were injured. Virtually the entire population of the region was displaced. The flooding in New Orleans, as much as 10 feet deep in many areas, completely destroyed tens of thousands of homes and forced the closure of the majority of hospitals in the region, including four of the five hospitals in which our clinical and educational programs were based. Large areas of the city were inaccessible for many months.



Hurricane Katrina, August 29, 2005



Persistent flooding in New Orleans, September 2015, forces closure of Charity and other hospitals.

The challenges were daunting. Most of our faculty, residents and staff had experienced great personal loss. Many were unable to return to their homes, living in borrowed rooms, and out of suitcases. For others, even if their homes were still livable, returning to New Orleans was simply not an option because of lack of schools for their children, loss of employment for spouses, and a myriad of other social, economic and family concerns. As a result, more than half of our faculty, and nearly half of our residents were forced to leave LSU, moving to other cities and other programs. These losses were extremely difficult. Initially it was not clear that the Department would be able to carry on operations at all.

This unprecedented catastrophe forced us to re-examine and reorganize the Department's entire scope of operations, in order to:

- Quickly find hospitals in which we could help those hurt in the hurricane;
- Establish a stable base to provide continuity care for our existing cancer patients, chronically ill patients, and patients displaced from the Charity system;
- Re-establish workable educational rotations for medical students, residents and other trainees displaced by the disaster; and
- Work toward eventually rebuilding our research programs.

Fortunately, we had a pre-existing affiliation with the public hospital in Lafayette, LA, now called University Hospital and Clinics (UHC). For a number of years before Katrina, UHC had served as a satellite rotation for residents, directed by Dr. Bradley Chastant.





Charity Hospital shuttered and overgrown ten years after Katrina.



Bradley J. Chastant, MD

Immediately after Katrina, Dr. Chastant provided the Department with a temporary administrative office suite, and access to clinics in which we could see our displaced patients. From this new Headquarters, the Department began to slowly reorganize and rebuild.

During 2006, we arranged for temporary rotations for some of our residents, thanks to the generosity of other Otolaryngology programs, including UT-Dallas, Georgetown, Stanford, University of Alabama-Birmingham, Pittsburgh Ear Associates/Allegheny Health, U. of Texas-Southwestern, UT-M.D. Anderson, and U. of North Carolina-Chapel Hill. The remainder of our residents who stayed with us were instrumental,

and in fact indefatigable (special recognition to Dr. Justin Tenney at Earl K. Long hospital), in getting our new clinics and hospital services up and running in the smaller public hospitals in Lafayette and Baton Rouge.

Meanwhile in New Orleans, LSU leadership worked to open temporary replacement facilities for the badly damaged Charity Hospital and University Hospital, and federal administrators worked to find options for Veterans who could no longer be treated in the damaged VA Hospital. Elsewhere in New Orleans, our Department's





Above: Dr. Chastant (left) observing LSU Residents in surgery at UHC-Lafayette

Below: Healthcare workers at Charity Hospital, where flood waters reached the level of the 2nd floor Emergency Room entrance ramp.











Disaster Strikes: A Decade of Change; 2005 to Now

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faculty remained active at Children's Hospital (Drs. Evelyn Kluka and Michael Hagmann), and later, at the Interim LSU Hospital (ILH), where ENT services were provided by adjunct LSU faculty, most notably Dr. R. Patrick Cecola.

During the first year after the disaster, we also expanded our relationship with Our Lady of the Lake (OLOL) Regional Medical Center in Baton Rouge, LA, where Dr. Andrew McWhorter had established the LSU Voice Center prior to Katrina. With Dr. McWhorter's help and a great deal of good-faith accommodation from OLOL leadership, we proposed several new specialty clinics and forged ahead.



Dr. McWhorter

In August 2006, we opened the Head and Neck Center; in 2007, led by Dr. Moisés Arriaga, we opened the Hearing and Balance Center; and in 2010, led by Dr. Laura Hetzler, we opened the Facial Plastic and Reconstructive Surgery Center. All of these practices have thrived.

Replacing lost faculty members was extremely challenging. Recruiting doctors to Louisiana in the wake of this disaster was at first a formidable undertaking. Fortunately we were able to gradually assemble a distinguished group of dedicated physicians from private practices in the area (working part-time with the few remaining full-time members of the department), whose collective energy made it possible to gradually rebuild the components of a strong program.

Department of Otolaryngology-Head and Neck Surgery LSU Health Science Center

New Orleans

Interim headquarters post-hurricane Katrina. 1000 West Pinkook Road, Suite 201 Lafayette, LA 70503 337-237-0650

April 19, 2006

To whom it may concern:

The temporary letterhead of the department, used during the post-Katrina period from headquarters in Lafayette



An LSU ENT Resident's home, showing progressive lines of flood waters receding after Katrina. The orange markings were left by National Guardsmen in boats, during their search-and-rescue operations (courtesy Dr. B. Travis).

For the first year after Katrina, our primary focus was "recovery". Once we were able to establish normal, predictable operations in high-functioning hospitals, we were increasingly able to branch out beyond basic services and restore our previous levels of tertiary services. With each new success, it became possible to attract new faculty. The volumes of patients being referred to our various practice sites increased, and this in turn provided a more robust clinical atmosphere in which to educate residents and students.

We now have evolved to the point at which we have an exceptionally diverse, well-balanced faculty providing services in all subspecialties of Otolaryngology, across the southern part of Louisiana, from multiple locations.

The combination of high-volume clinical sites, and a dedicated, expert faculty has brought considerable attention to our training program. We are now attracting residency applicants from many of the best medical schools in the nation. In fact, in 2014 we interviewed residency candidates from the most diverse group of schools in our history, including institutions like Johns Hopkins, Penn, Cornell, Case Western, Boston U., UNC-Chapel Hill, U. of Michigan, and many others.

A visual timeline of significant events in the Department's reorganization and evolution over the past decade appears on the inside back cover spread. We now have evolved to the point at which we have an exceptionally diverse, well-balanced faculty providing services in all subspecialties of Otolaryngology, across the southern part of Louisiana from multiple locations.



OUR REGIONAL PROGRAM A Unique Model of Clinical Access and Medical Education

www.medschool.lsuhsc.edu/otorhinolaryngology



LSU Health - Baton Rouge



University Hospital and Clinics





Lafayette General Medical Center



LAFAYETTEX



Lafayette General Surgical Hospital

BATON* ROUGE



Our Lady of the Lake Regional Medical Center

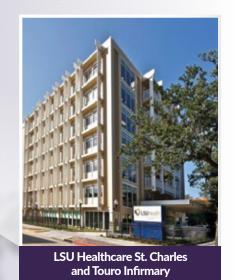




LSU Health











Our Regional Program: A Unique Model of Clinical Access and Medical Education

In the aftermath of Hurricane Katrina, the LSU Department of Otolaryngology lost many of its people, and also lost access to most of its hospital affiliates, forcing reorganization with new geography, and new clinical sites, across southern Louisiana. Although this was initially a short-term response to an uninvited "wave of change", it soon became clear that our specialty services could reach more patients in the new design. With the support and encouragement of area physicians, hospitals and the University, we pushed forward and managed to become a truly "Regional Program", in which we now have more than forty faculty physicians, 17 residents, and a large support staff spread over three cities and a growing number of hospital and clinic locations.

Doctors across Louisiana and the Gulf Coast – and well beyond – refer their most challenging, unusual and complex patients to our team. With a reputation for excellent care delivered in an efficient, compassionate setting, we are uniquely equipped to provide tertiary care for virtually any disease, deformity, or problem affecting the head and neck. Much of this care is provided directly by our subspecialized ENT doctors, but much of it is also rendered with interdisciplinary care from associates in neurosurgery, ophthalmology, plastic surgery, maxillofacial surgery, general surgery, and medical oncology, radiation oncology, interventional radiology, and other related specialties. This collegial aggregation of expertise allows us to offer our patients comprehensive services unavailable elsewhere in the region.

Our LSU Otolaryngology physicians have repeatedly been recognized for our high quality work by U.S. News & World Report, Best Doctors, Best Doctors for Cancer, Top Doctors, and many other independent third-party organizations.

Our Regional program also embraces the educational mission; we are continuously engaged in teaching medical students, residents, and other healthcare professionals, including physicians' assistant students, audiology and speech language pathology students, and others. Our residency program is fully accredited by the ACGME and we have also established a unique fellowship program in Neurotology-Skull Base Surgery.









Department of Otolaryngology Specialty Services:

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www.medschool.lsuhsc.edu/otorhinolaryngology

Head and Neck Surgery

The LSU Head and Neck Surgery service provides comprehensive treatment options and cuttingedge technological innovations for patients with benign and malignant tumors. New cancer patient referrals are evaluated by our team of physicians in state-

of-the-art clinics. Our head and neck program is a tri-city program with four major locations: Our Lady of the Lake Regional Medical Center in Baton Rouge; University Hospital and Clinics in Lafayette; New Orleans Head and Neck Center; and University

IRENE'S STORY

Irene, a youthful 80-year old lady with an expanding neck mass, had been told by multiple doctors that it was too risky, and she was too old, to have surgery. Under the care of our multi-disciplinary team, the mass was safely removed and she made a rapid and complete recovery.

Medical Center in New Orleans. Our departmental approach to the treatment of patients with cancer of the head and neck is multidisciplinary, patient-centric and evidence-based. Each patient with a newly diagnosed or recurrent cancer is presented at our multidisciplinary Head and Neck Tumor Board (with teleconferenced input from physicians in all locations) where multiples disciplines weigh in for treatment planning and decision making. Among these disciplines are: head and neck surgery, medical oncology, radiation oncology, pathology, radiology, speech and swallowing therapy, social services, nutrition, dental oncology, physical and occupational therapy and palliative care. When needed, specialists in other fields are also engaged. Together, input from all of the involved experts is gathered in order to form a comprehensive and personalized cancer treatment plan for each patient. Our head and neck surgery team has grown substantially in the past decade. Our surgeons who treat head and neck cancer.

patients are all fellowshiptrained: Drs. Michael DiLeo. Anna Pou and Todd Brickman are trained in head and neck surgery and microvascular reconstruction: Drs. Rohan Walvekar and Daniel Nuss in head and neck and skull base surgery; Dr. Kevin McLaughlin and Dr. Henry Barham in rhinologic anterior skull base surgery; Drs. Moises Arriaga and Rahul Mehta in neurotology and lateral skull base surgery; and Dr. Laura Hetzler in facial reconstruction and reanimation.

Dr. Walvekar is also a recognized expert in robotic surgery, minimally invasive surgeries and sialendoscopy, a leadingedge new subspecialty that uses miniature fiber optic endoscopes to treat diseases of the salivary glands. Trans-oral laser microsurgery for laryngeal cancers and procedures for rehabilitation of voice and swallowing are performed by our 2 fellowship trained laryngologists, Drs. Andrew McWhorter and Dan Fink. This broad expertise, which

encompasses every latest technological innovation from robotic surgery to reconstruction and rehabilitation, has helped us evolve into a truly comprehensive tertiary care center of excellence for the management of head and neck tumors.

Part of the in-patient experience involves formal bedside teaching rounds and post-operative planning conferences that ensure the highest levels of patient safety, quality of care, and instruction, and gives patients and families confidence regarding post-surgery home care. As a result of this collaboration with nursing and ancillary staff, we have designed, implemented and published multiple Quality Improvement projects, including several award-winning innovations that have led to better outcomes for our cancer patients.

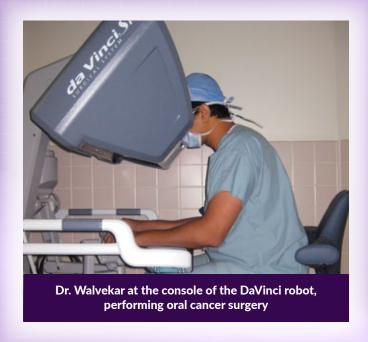
Head and neck cancer research, innovation, and outreach cancer screening programs are an important part of our mission (discussed elsewhere in this document). Clinical research evaluating quality of life outcomes, oncologic outcomes, safety and quality improvement, innovations in technology and efficacy of minimally invasive techniques in head and neck surgery are our special focus. Our physicians offer a comprehensive range of robotic procedures including TORS (trans-oral robotic and laser surgery) and robotassisted distant-access ("scarless") thyroidectomy. We were the first to describe the use of the robot for management of submandibular stones and ranulas. We were also the first to describe a novel approach for thyroidectomy using a retro auricular incision. As a part of our community service mission, we participate in oral cancer screenings in our surrounding communities in conjunction with Interim LSU Hospital, Mary Bird Perkins Cancer Center, local businesses and churches.

Faculty Spotlight



Rohan R. Walvekar, MD

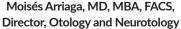
Dr. Rohan Walvekar was recently named the first recipient of the Mervin L. Trail Endowed Chair in Head and Neck Oncology. The goals of this endowment are to advance the treatment of head and neck cancer, increase our cancer-treatment capability at each of the hospitals across the region, encourage philanthropy toward cancer research, and to expand our existing community outreach, oral cancer screening programs and innovations in technology.



SPECIALTY SERVICES

Otology & Neurotology







Rahul Mehta, MD, FRCS

The LSU Otology-Neurotology Division offers the most advanced Otology, Neurotology and Lateral Skull Base Surgery Services in the region to patients who have problems affecting hearing, balance, facial movement and other related conditions.



A patient undergoing computerized Posturography testing, a NASA-derived technology that is part of a comprehensive diagnostic evaluation for people with dizziness and balance disorders. The platform on which the patient stands, and the artificial visual horizon surrounding the patient, can be manipulated to see how the patient's reflexes respond. Results of this test help determine how to improve balance, and reduce fall risk.

Under the direction of Moisés Arriaga, MD, MBA, FACS, our dedicated Hearing and Balance program has thrived since its inception in 2005, and has enjoyed an impressive and steady expansion over the years. We now offer our services in multiple locations:

- Our Lady of the Lake Hearing and Balance Center, in Baton Rouge
- The CNC Hearing and Balance Center (in collaboration with the Culicchia Neurological Center), with offices at West Jefferson Medical Center and Touro Campus, in New Orleans
- Children's Hospital Cochlear Implant Program, in New Orleans
- Interim LSU Hospital (through 2015) and University Medical Center, in New Orleans

The LSU Hearing and Balance team is made up of an extraordinary group of professionals with diverse expertise. With Dr. Arriaga and Dr. Rahul Mehta, MD, FRCS, the division at the time of this writing boasts two fellowship-trained neurotologists, and a support team that involves nine Audiologists, three Vestibular (balance) Physical Therapists, three Nurse Practitioners, and a Facial Paralysis Rehabilitation Therapist.

Scope of Services: Living, Hearing, Communicating and Holding Steady

The services we provide include diagnosis, treatment and therapy for a vast array of problems affecting the ear and the surrounding parts of the head and skull base. Among the conditions treated, and the services provided, are the following:

- Hearing loss and deafness
- Comprehensive hearing analysis: audiometry, tympanometry, acoustic reflex testing, oto-acoustic emissions and auditory brainstem response testing for infants, children and adults
- Traditional and digital hearing aids and assistive listening devices
- Cochlear implants and implantable hearing aids
- Chronic ear and mastoid infections
- Tinnitus (ringing in the ear) management including Tinnitus Retraining Devices and active therapy
- Tumors (benign and malignant) of the ear and temporal bone, including acoustic neuroma, glomus tumors, squamous cell cancer, and others



Telemedicine in Action: During a telemedicine visit, the patient (seated in the foreground) is being assisted by the nurse practitioner and resident. On the split-screen, the patient can see his Neurotology physician and his hearing test results, MRI and other details, and the physician (who can be located many miles away) can remotely make a diagnosis and recommend treatment.

- Dizziness and other balance disturbances from a wide variety of causes, including Meniere's disease, inner ear infections, autoimmune diseases, cardiac and blood pressurerelated conditions, strokes, head injuries and other neurologic conditions.
- Comprehensive balance evaluations including electrophysiological testing, rotary-chair balance testing, posturography platform assessment, video-nystagmography, vestibular evoked potentials, and others
- Rehabilitative balance therapy for patients who are at risk for falls
- Canalith repositioning procedures to restore inner ear balance function
- Facial nerve testing and facial paralysis rehabilitation and reconstruction (discussed further in the section on Facial Plastic and

Reconstructive Surgery)

- Multidisciplinary Team management for all Vestibular, Cochlear Implant and Facial Reanimation cases
- Laser Microsurgery and Endoscopic Ear Surgery

Special Programs and Accolades

The LSU Otology and Neurotology program is widely respected for its clinical work and educational services. Our comprehensive Neurotology Skull Base Regional Center of Excellence has received recognition from the Acoustic Neuroma Association, and we currently see approximately 150 acoustic neuroma patients annually. These patients benefit from collaborative management by our Neurotology surgeons, Neurosurgeons, and Radiation Oncologists as well as our

entire rehabilitative team of hearing, balance and facial movement therapists. In recent years we have published and presented our work on an innovative new "four-handed technique" for surgery of acoustic neuromas and posterior fossa tumors.

We are actively engaged in ongoing multi-institutional clinical trials for patients whose problems qualify for innovative new treatments that are experimental or not yet in widespread use.

Education

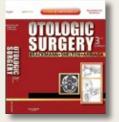
We are deeply committed to education in Otology/Neurotology. The LSU Department of Otolaryngology is the host institution for a fully ACGME-accredited Fellowship in Otology-Neurotology and Skull Base Surgery, one of only thirteen such programs nationally. We provide continuing education for practicing physicians and surgeons, audiologists, and vestibular/balance therapists as well. These educational programs help to advance the knowledge base of professionals who attend, benefiting patients across the region.

The Temporal Bone

Anatomic study of the temporal bone (that portion of the skull that contains the inner ear and related nerves and blood vessels), and education in microsurgical temporal bone techniques, are essential requirements for successful surgical treatment in many hearing and balance

disorders. LSU is host to quarterly
Temporal Bone Dissection courses for
surgeons, featuring invited international
experts who serve as guest faculty. And of
course, our LSU Otolaryngology resident
physicians receive all-inclusive training

in this discipline. Dr. Arriaga, a prolific teacher and author, is co-editor for one of the world's leading Otology textbooks:



Telemedicine

The LSU Telemedicine in Neurotology program has been a uniquely successful way of remotely offering highly specialized hearing and balance consultations to patients when direct access to the doctor is limited by the patient's location, physical condition, or other circumstance. This program, which we initiated out of necessity after Hurricane Katrina. has evolved into a vibrant, flourishing service that has been extremely popular with patients. Our neurotology-telemedicine experiences, including outcome studies on efficacy and patient satisfaction, have been presented and published in a number of medical meetings and respected journals. As a result of our extensive involvement in telemedicine, Dr. Arriaga and Dr. Nuss have been appointed to the TeleHealth Committee of the American Academy of Otolaryngology.

Laryngology, Voice, Airway and Swallowing Disorders

The Larynx: At the Crossroads of Life

The basic functions of the larynx are something that most of us take for granted. It's not until we lose the ability, to speak, swallow, or breathe that we realize the importance of the larynx. The isolation of not having your voice and the social functions that surround eating are not only essential but speak to the quality of our lives. At the Voice Center, we have a team of professionals dedicated to preserving and returning function to help patients regain their connection with others.

Setting the Standard

For ten years, the Voice Center has remained the only full service center in Louisiana dedicated to helping patients with voice, breathing, and swallowing difficulties. Created and led by Dr. Andrew McWhorter, the center added the state's second fellowship-trained laryngologist with the addition of Dr. Daniel. Fink, who trained at Harvard and completed his fellowship at UCSF before joining the department in 2013. He joins the team with Dr. Melda Kunduk CCC-SLP who directs the LSU Voice

Laboratory, Mell Schexnaildre, MS, CC-SLP, and the team of clinical speech language pathologists who treat patients' voice and swallowing disorders and help to rehabilitate our patients battling the challenges of head and neck cancer.

Restoring Function, Fighting Disease

Patients coming to the voice center have often seen multiple physicians and may travel great distances to seek specialized care. Treating every patient with kindness, and taking the time to understand their difficulties provides a foundation to start their healing. Expert care from the physicians and therapists is augmented by harnessing technology with state of the art imaging and analysis for diagnosis and treatment. The expansion of in-office procedures often allows treatment without the need for general anesthesia or formal surgery. Our recognized expertise in the minimally invasive treatment of laryngeal cancer frequently leads to same day surgery without the need for prolonged hospital stays or lengthy radiation treatments.



Creating a Better Future

Through teaching and research the Voice Center is helping prepare the next generation of providers, while advancing our understanding of the mechanisms of voice, and improving the function of patients with head and neck cancer. Education is not only limited to residents, medical students, PA students and graduate speech pathology students but also extends to patients and their families. Our laryngectomy handbook, and pre-operative counseling session for all patients and their families helps them to prepare for the challenges of an alaryngeal lifestyle. This continues afterwards with speech pathologist, Mell Schexnaildre, CCC-SLP, leading our Still Talking support group for patients and their families after total laryngectomy. As a regional referral center for alaryngeal rehabilitation, we host continuing education sessions for physicians, speech pathologists and patients, with distinguished faculty including the likes of international experts Drs. Eric Blom and Franz JM Hilgers.

Research is an integral component of our work as well, helping us to better understand our patients' conditions and working to provide new treatments for them. Dr. Kunduk utilizes high speed digital imaging of the larynx, recording the actual vibrations of the vocal folds at speeds of up

to 10,000 frames/second to better understand the basic physiology of the vocal folds. Our published work on prophylactic swallowing therapy for patients undergoing treatment of head and neck cancer is the only prospective, randomized controlled study on swallowing maintenance and restoration after head and neck cancer, and has led to the elimination of feeding tube dependence in 30% more of our patients. We have also recently joined forces with over 25 other leading institutions as a Patient Centered Outcomes Research Institute (PCORI) grant member investigating treatments and outcomes for patients with subglottic stenosis.

Innovation Spotlight

The Voice Center strives to be at the forefront of bringing new technologies and therapies to the patients of Louisiana and the Gulf Coast. Through pioneering new, advanced, minimally invasive surgeries of the larynx and applying open techniques via an endoscopic approach, we are helping our patients to make faster recoveries with less risk. Recent publications have recognized these contributions developed by the team, with the first report of using Montgomery t-tubes to manage the challenges associated with tracheo-esophageal fistula and the development of a new surgical technique for the endoscopic repair of pharyngocutaneous fistulae. **



Speech-Language Pathologist Mell Schexnaildre, working to restore speech for a cancer patient during a "Still Talking" session



Patient Vignette:

When this young lady came to the LSU-OLOL Voice Center, she had not spoken a word in over ten years. She had suffered a serious stroke and complications from a breathing tube, leading to complete obstruction of the airway, which made her dependent on breathing through a tracheotomy tube. Dr. McWhorter recommended reconstructive airway surgery and voice therapy, and she is now speaking and breathing normally, and hoping to return to singing in her church choir again.

Tran C, Fink DS Kunduk M, McWhorter AJ. Minimally invasive management of tracheo-esophageal fistula with Montgomery T-tube. Laryngoscope 2015.

Fink DS, Pena S, Handby D, Kunduk M, McWhorter AJ. Repair of pharyngocutaneous fistula after total laryngectomy: A novel endoscopic approach. Head and Neck 2014.

^{**} Selected references:

SPECIALTY SERVICES

Facial Plastic and Reconstructive Surgery

"Facial Plastic and Reconstructive
Surgery plays an incredibly
important part in restoring
normal appearance, natural
function, and quality of life...



Dr. Laura T. Hetzler, founder and Director of the LSU-OLOL Cleft and Craniofacial Panel, with Otologist Dr. Rahul Mehta and Chairman Dr. Daniel Nuss, preparing for the Cleft/Craniofacial Clinic.
Other members of the panel include Dr. Taylor Theunissen (Plastic Surgery), Dr. Mike Casadaban (OMFS), Dr. Duane Superneau (Genetics), Dr. Michael McGinnis (Maxillofacial Prosthodontics), Dr. David Balhoff (Orthodontics), Dr. Robert Delarosa (Pedodontics), Dr. Melda Kunduk and Mell Schexnaildre, (Speech Therapy), Courtney Gonsoulin (Feeding Specialist), Wendy Jumonville (Audiology), and Monique Hall (Social Worker).

FPRS: More Than Just A Pretty Face...

The subspecialty of Facial Plastic and Reconstructive Surgery plays an incredibly important part in restoring normal appearance, natural function, and quality of life to patients whose faces have been affected by a wide variety of conditions, ranging from birth defects and traumatic injuries to cancer and a wide range of medical illnesses. Facial deformities, regardless of the cause, can result in social rejection, loss of opportunity in the workplace, and failures in school and in society. In some cases, e.g., when the eyelids and mouth are involved, or when there is paralysis of movement, deformities can lead to blindness, or difficulty with eating, chewing, speaking and breathing. In other words, many of the things that we take for granted in our everyday life, involving basic social interaction and communication, can be rendered impossible when there is facial deformity. FPRS surgeons help turn distorted features into presentable appearances, allowing patients to live fuller lives.

Patient Care In FPRS: It Takes A Village

LSU Otolaryngology has a long history of providing reconstructive and restorative surgery, and in recent years, we have assembled an elite team of experts with a range of overlapping capabilities that can address virtually every kind of facial disorder. In complex cases, we also work with specialists in related fields other than ENT (see below) to find the optimal solution to a patient's needs. This *Interdisciplinary Teamwork* is a common theme in our approach to getting the best results for patients who have unusual or rare problems. In the LSU Otolaryngology Department, the following physicians have completed fellowship training, and board certification, in facial plastic and reconstructive surgery: Graham Boyce MD, Bradley Chastant MD, Laura Hetzler MD, and Jeffrey Joseph MD.





Infant with left-sided Tessier #7 orofacial cleft (macrostomia) before (left) and after surgery (right)."

Facial Reanimation: One area of special importance in this regard involves the management of patients who have facial paralysis. Whether a result of a common viral infection (known as Bell's Palsy) or a complication of cancer, surgery, injury, or something else, a paralyzed face is a major disability. At LSU, we are emerging as a regional authority on facial reanimation — the processof restoring movement to a paralyzed face. The high volume of patients seen in our Head and Neck Oncology, Skull Base and Neurotology practices, along with

our relationships with colleagues in Neurosurgery and Neurology, has allowed us to develop reliable medical and surgical protocols for taking care of facial paralysis patients. Not all will require surgery, but we have implemented strategies for efficiently determining which patients can benefit from surgery, which ones will do best with medical management alone, and which patients need a combination of treatments. The LSU Facial Reanimation team includes Dr. Laura Hetzler, Dr. Moisés Arriaga, and Dr. Daniel Nuss. Options for surgical treatment range from simple facial nerve repair to nerve grafting, nerve transpositions, and in some cases, microvascular transplantation of nerves and muscles from other parts of the body – whatever is needed to re-create healthy facial movement.

Cleft and Craniofacial Surgery: Another area of major focus in our department is the care of babies and young children who have congenital or inherited facial deformities, such as cleft lip, cleft palate, facial clefts, and a variety of birth defects known as dysmorphic syndromes. Many of these children suffer from not only their deformities but also from associated problems





Adult male with facial paralysis, before and after nerve transposition surgery

with breathing, eating, speech, vision and hearing. Treatment of these patients requires careful diagnostic investigation that relies on everything from CT and MRI scans to panoramic dental scans, to hearing tests, to genetic testing.

In this highly specialized service, each family and patient with a newly diagnosed craniofacial defect is seen in a multidisciplinary clinic that is staffed by every specialist needed – Facial Plastic/Reconstructive Surgery, Plastic Surgery, Ophthalmology, Neurosurgery, Pediatrics, Otology, Audiology, Dentistry, Maxillofacial Surgery, Pedodontics, Orthodontics, Speech-Language Pathology, Genetics, Nutrition, and others. Each child sees each doctor in the same day, and after the patient's visit, the team meets to review all findings and to recommend an individualized plan of care, which is shared with the child's physician and family. In this way, each child receives the best possible care.

Our LSU ENT surgeons have been actively involved in Cleft & Craniofacial clinics for many years at Children's Hospital of New Orleans. More recently, because there were many children who were underserved in other parts of the region, a new Cleft program was initiated in Baton Rouge, at Our Lady of the Lake Regional Medical Center, under the leadership of Laura Hetzler, MD.



Roundtable session after the Cleft Clinic patients have all been seen, to discuss each patient, review imaging, and formulate an individualized plan with multidisciplinary input. This plan will be shared with the outside care team and patient's family.

Robbing Peter to Pay Paul:

When cancer destroys the face, reconstructive surgery can be challenging, especially when the areas involved are delicate, such as the eyelids, nose and lips. And reconstructive surgery has no age limit. When Margaret Puloma developed basal cell cancer of the upper eyelid, she was already 100 years old. Her doctors feared that she was too old for an operation, so for several years no treatment was given. When she was sent to us at the age of 104, the tumor had engulfed most of her upper eyelid and part of her forehead, and was eroding deeply into her skull (A & B). Dr. Dan Nuss removed









the tumor from the face and skull, and for reconstruction Dr. Laura Hetzler created an ingenious "two-flap" design, borrowing skin from the upper forehead with a glabellar flap, and rotating it into position, and borrowing from the temple with a Tenzel flap, to re-create an eyelid (C & D). This lovely lady made a wonderful recovery (E & F), and was all the more grateful because we honored her one request: to postpone her surgery until after she could celebrate her 105th birthday with her family.

SPECIALTY SERVICES

Pediatric Otolaryngology

The LSU Division of Pediatric Otolaryngology was established in 1991, under the direction of Evelyn A. Kluka, MD, at Children's Hospital of New Orleans (CHNOLA). Children's is a thriving, 247-bed, not-for-profit medical center offering the most advanced pediatric care for children from birth through age 21 years. CHNOLA has long been the only full-service hospital exclusively dedicated to children in Louisiana and the Gulf South. With a 36-bed NICU, 24-bed PICU, and 20-bed Cardiac ICU, the hospital is able to offer pediatric specialty services of all levels of acuity in every field.

The Otolaryngology service is currently comprised of four full-time pediatric ENT physicians, including Michael Dunham, MD (Director), Michael Hagmann, MD, Anita Jeyakumar, MD, and Sohit Kanotra MD, and we are actively expanding with plans to recruit additional pediatric ENT specialists at the time of this writing. Our team is broadly balanced, with a wide range of expertise that includes pediatric ear disease, especially otitis media and its complications (hearing loss, otorrhea), treatment of deafness with surgical options including cochlear implants and other implantable hearing devices, and extensive supportive services including audiology and speech rehabilitation for children learning to communicate. In addition, we have active programs for treatment of congenital neck masses, pediatric endocrine tumors (especially thyroid and parathyroid problems), airway



disorders, eating and swallowing disorders; and we are also actively involved in treatment of cleft and craniofacial deformities as well as pediatric head and neck cancers.

Assisting our full-time pediatric ENT team at CHNOLA, we often engage other consultants from our LSU staff who contribute to complex cases requiring more specialized expertise, such as laryngology (Drs. Andrew McWhorter and Daniel Fink), facial plastic & reconstructive



Cochlear implants impart Super Powers: Following Hurricane Katrina, the LSU Otology division established a regional cochlear implant program, spanning Children's, West Jefferson, and Our Lady of the Lake hospitals. Some of our pediatric cochlear implant recipients have attracted media attention. This "Wee Believe" Feature Story highlighted Jessalyn, a 4 year old who was born deaf. After receiving cochlear implants, she developed normal, age-appropriate speech and language within just one year. She is appropriately dressed in her Supergirl outfit with a cochlear implant proudly visible above her right ear.

surgery (Dr. Laura Hetzler), rhinology, head and neck oncology and skull base surgery (Dr. Daniel Nuss, Dr. Rohan Walvekar, and Dr. Rahul Mehta), and complex neurotology (Dr. Moises Arriaga, Director of Cochlear Implant Program).

In addition to a thriving clinical practice, our physicians are leaders and active members of local and national organizations, such as the American Society of Pediatric Otolaryngology and the American Academy of Otolaryngology. Dr. Arriaga serves on the Louisiana Commission for the Deaf; Dr. Jeyakumar serves on the Early Hearing Detection and Intervention Task Force for the state; and Dr. Kanotra is involved in international humanitarian efforts. Dr. Hagmann, who has served with LSU and Children's for more than two decades, is an expert in disaster preparedness, and was vital in rebuilding the pediatric ENT service (along with Dr. Kluka) after the devastation of Hurricane Katrina; Dr. Hagmann is also a member of the Children's Hospital Craniofacial Team and is a sought-after speaker on a variety of topics in pediatric ENT.

The LSU Department of Otolaryngology also provides pediatric ENT care at our other affiliated hospitals, including Our Lady of the Lake Regional Medical Center and LSU Health-Baton Rouge, and at University Hospital and Clinics (Lafayette).





Andre' Kaufman, 15 years old, with Cranial Base Surgery Coordinator Annette Barnes, RN and Dr. Nuss, returns for a long-term follow-up visit. He was born with a large congenital tumor similar to the one shown here, and underwent surgery while he was an infant to remove it.

Faculty Spotlight



Evelyn A. Kluka, MD A Special Tribute

Evelyn A. Kluka, MD, has truly been one of the pillars of the modern LSU Department of Otolaryngology. After completing her residency in the Department in 1989, she served a fellowship in Pediatric Otolaryngology at the LeBonheur Children's Hospital in Memphis, Tennessee. She then joined

the LSU Faculty in 1990, and over the next 23 years, built a reputation as one of the most respected, accomplished and beloved physicians in our history.

Dr. Kluka developed the LSU Pediatric ENT service at Children's Hospital of New Orleans (CHNOLA), and from the very beginning, she was recognized as a gifted surgeon with a passion for caring for children with all varieties of ear, nose and throat disorders. This ranged from the commonplace ear infection to the severe craniofacial deformity – she excelled in all areas of her field. Through her dedication and work ethic, Evelyn built the LSU Pediatric ENT service into one of CHNOLA's highest volume, highest demand and most highly regarded services in the hospital's history.

Dr. Kluka also had a great love for education, and she dedicated a substantial part of her time every day to teaching medical students, ENT residents, pediatric residents and allied health students. All who were assigned to her came to appreciate her generous gift of time taken to share her expertise with them. She received many awards in recognition of her teaching excellence, and she influenced a generation of future doctors. She also gained a national reputation for her expertise in the treatment of immunocompromised children who have severe infections, and was recognized by the American Academy of Otolaryngology for her work in this regard.

In 2013, Dr. Kluka retired from her position in the Department, and is now in private practice in Pensacola Florida. Her influence endures, however, in all of the Department's educational programs and in the clinical practice of pediatric ENT.

In recognition of this lasting legacy, a campaign is now underway to establish The Evelyn A. Kluka Lectureship in Pediatric Otolaryngology. Those interested in contributing to this campaign are encouraged to contact the department at www.medschool.lsuhsc.edu/otorhinolaryngology.

SPECIALTY SERVICES

Rhinology, Sinus and Allergy

"Nose Trouble" can mean many things to many people. Every normal person has experienced the discomfort, inconvenience and aggravation of a sinus infection, a minor nosebleed, or an occasional cold. Indeed, almost everyone is familiar with the common complaint "I have sinus problems". Fortunately, most people with "sinus problems" have common conditions such as deviated nasal septum, environmental allergies, or congestion due to sensitivity to things in the air, such as pollen, air pollution or tobacco smoke, to name just a few. And fortunately, most of these things can be remedied with simple measures.

But when nose and sinus problems

escalate, they can be life-altering and even life-threatening. The range of such problems can be surprising: severe chronic sinus infections, fungal infections, airway obstructions due to inury, immunesystem deficiencies, genetic syndromes that impair sinus function, and benign as well as malignant tumors. And because the nose is central to the face, disorders that start in the nose can readily extend to involve the eyes (resulting in loss of vision or blindness), the sense of smell, the base of the skull and the brain itself.

In the LSU Division of Rhinology, Sinus and Allergy, we have established a tertiary-level referral service in which patients who have even the most difficult and rare problems relating to the sinuses can find answers. Directed by Kevin McLaughlin, MD, the Rhinology service also includes Dr. Rahul Mehta, Dr. Henry Barham, and Dr. Daniel Nuss, each of whom has completed one or more clinical fellowships with advanced training in rhinology, skull base surgery, or both. Together we collaborate to care for patients who have many unusual sinonasal conditions, including:

- Chronic sinus infection despite prior surgery or other treatments
- Nasal airway obstructions from all causes
- Complications of longstanding allergy problems
- Anosmia or impaired sense of smell
- Benign tumors such as angiofibroma, papilloma and others
- Malignant tumors (cancers) of the nose and sinuses
- Sinus and skull infection due to trauma, radiation or immune problems
- Leakage of cerebrospinal fluid (CSF) from the brain into nose
- Osteoradionecrosis and other bone disorders of the face and skull
- Proptosis (bulging forward) of the eyes due to sinus obstruction, thyroid conditions or sino-nasal tumors
- Nasolacrimal duct obstructions affecting the flow of tears from the eye
- Congenital and developmental nasal problems in children (e.g., dermoids and encephaloceles)
- Sleep apnea and related breathing disorders
- Many others

Our rhinology team provides both surgical and nonsurgical treatments, using sophisticated diagnostic and interventional techniques. The majority of patients who need surgery can be managed with minimally invasive, endoscopic methods in which no incisions are needed and recovery is rapid. We use the latest Stereotactic Image-Guided Navigation tools to precisely pinpoint areas of interest and to reduce risks during surgery (see illustration); and we regularly employ microsurgery, lasers, balloon dilators, and other technical innovations to achieve the safest and best results. We also freely collaborate with ophthalmologists, neurosurgeons and other specialists, to arrive at the treatment that is best suited to the patient's particular needs.

In addition to formal training in Rhinology, Dr. McLaughlin is one of a very small number of ENT surgeons in the US who are board certified in Sleep Medicine, and he is able to offer multi-level surgical treatment (e.g., in the nose, throat, tongue, mouth and jaw) for patients who are affected by Obstructive Sleep Apnea and sleep-disordered breathing from a variety of causes. In many cases, the surgical treatment of sleep apnea can either improve the efficiency of treatment with continuous positive airway pressure (or CPAP), or in some cases can reduce or eliminate the need for it.

As in all other areas of our department, we integrate education and research into our clinical care. Our rhinology physicians have achieved wide recognition through



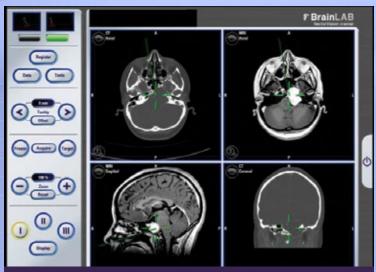
Drs. Evan Longfield and Neelima Tammareddi, practicing sinus surgery techniques in the hands-on surgical simulation lab at the LSU Russell Klein Center for Advanced Practice in New Orleans.



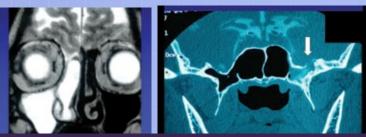
3-D model (left) showing passage of endoscope through the nose to gain access to the sinuses, the base of the skull, the orbit (eye socket), and adjacent areas. Anatomic models and simulations are used extensively for educating our medical students and residents, and also to help patients better understand their conditions and details of how surgery can bring relief.

their teaching, lecturing and publishing in medical journals. Recent and ongoing research in our department has focused on topics such as functional outcomes after sinus surgery; evaluation of new tools in treating tumors of the nose and skull base; outcomes from endoscopic DCR (dacryocystorhinostomy, or repair of the tearducts); and the investigational use of balloon dilators in treatment of Eustachian tube dysfunction (a common cause of hearing loss).





A young woman came to us with severe dizziness, caused by a tumor in the center of the head, compressing brainstem (top right image) and protruding forward through the sphenoid sinus (bottom left image). The tumor is being precisely targeted (green markers) using stereotactic 3-D CT and MRI Navigation during surgery. This tumor was benign, and was removed in a brief trans-nasal endoscopic surgery. The patient's dizziness resolved completely.



At left: MRI scan of the brain and sinuses, showing a large meningo-encephalocele (a portion of the brain and its surrounding spinal fluid-containing envelope) that is protruding through the skull, between the eyes, and into the nose and sinuses. Right: CT scan with dye injected into the spinal fluid, showing leakage of fluid through a defect in the skull (arrow) into the sinuses below. Both of these patients had their problems repaired with endoscopic nasal surgery.

Skull Base Surgery: The Art and Science of Collaboration

A Case In Point

If in casual conversation, someone mentioned that they had a little bit of hearing loss, or a little bit of painless swelling over their jaw, most listeners probably wouldn't be too concerned, especially if that person looked perfectly healthy. But when Pamela L., a 39-year-old Mom and schoolteacher, came to us with those symptoms, it soon became clear that her world was about to change. While these symptoms may sound fairly innocuous, her CT and MRI scans revealed some truly ominous findings – what Pamela had, in fact, was a very extensive and potentially life-threatening tumor of the skull base. The mass was compressing the temporal lobe of her brain, eating away the floor of her skull, causing fluid to build up in her ear, and destroying the temporomandibular joint (TMJ) and part of her lower jaw as well.

Pam's underlying problem was a rare but highly destructive condition known as villonodular synovitis, and hers is one of only a handful of such cases ever reported that involve the skull base and TMJ. These tumors have the potential to become malignant, and are notoriously difficult to cure. Complicating matters was the fact that her tumor was situated in one of the most anatomically complex areas of the body, with potential to cause brain problems (seizures, speech and language difficulty, weakness and paralysis among others), as well as deafness, inability to chew, and potentially severe facial deformity.

Pam's doctor referred her to Dr. Daniel Nuss, chief of the LSU Skull Base Surgery Program and

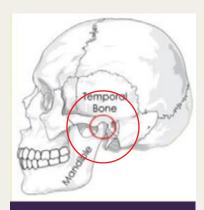


diagram of skull showing TMJ (smaller circle) and area of tumor destruction (larger circle)

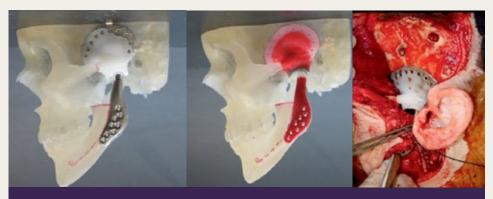
physician-organizer of a multidisciplinary team dedicated to handling the most unusual and challenging problems affecting the base of the skull and craniofacial region. Recognizing that this was a potentially life-threatening condition requiring input from multiple specialists, Nuss engaged members of the LSU otolaryngology team, including Dr. Moisés Arriaga, Dr. Laura Hetzler and Dr. Michael DiLeo, along with neurosurgeon Dr. Kelly Scranz and maxillofacial surgeon Dr. John Kent. This panel of experts was tasked with putting together a plan that would give Pam her best chance at 1) getting rid of the tumor, 2) preserving her hearing and normal facial movement, 3) separating the tumor from the brain without neurologic injury, 4) replacing the irreversibly damaged portions of the skull, TMJ, and jaw, and, 5) coming through it all with a normal appearance and function.



Skull Base Surgery is an area of modern medicine that is uniquely collaborative – meaning that it often takes input from multiple medical and surgical disciplines in order to achieve the best outcome.

But in Pam's case, there was one more specialty that was needed: biomechanical engineering. Because of the fact that such a substantial portion of Pam's skull base and jaw was going to have to be removed, the team pursued a novel approach in which a synthetic replacement was created specifically for Pam. This engineering feat required using her CT scan to help create a precise 3-D acrylic model of Pam's skull. From that model, a custom prosthesis of silicone and titanium was manufactured to precisely re-create what the tumor had destroyed.

In April 2012, the surgical team, working together, was able to completely remove Pam's tumor. The



Left and center: Acrylic models of Pam's skull with prosthesis prototypes in position. Right: Surgical photo showing the final prosthesis being attached to the skul



prosthesis was fitted to her skull and jaw with titanium plates and screws, providing a complete reconstruction of the missing bones. Within days, Pam was able to get back home, and within a few weeks she returned to all of her normal activities, including chewing, smiling, and getting back to teaching. Over the years that have passed since her surgery, she has never had any sign of tumor recurrence and continues to do well.

Pam's case illustrates the advantages of having multiple surgeons collaborate to find innovative solutions to rare and challenging problems. When we asked Pam for permission to tell her story, her immediate response was an enthusiastic "YES!... and thank you, times a million, for helping me to get back to living my life!"

The LSU Department of Otolaryngology is widely known for its contributions to the advancement of Skull Base Surgery. Dr. Daniel Nuss has been active in the North American Skull Base Society (NASBS) since the 1990's, and served in 2009 as its President. This international group is devoted to the study and advancement of treatment for skull base diseases, and its membership is comprised of ENT surgeons, Neurosurgeons, Plastic surgeons, and physicians from many other specialized fields of medicine and surgery. Each year for the past six years, LSU has hosted the annual NASBS Summer Workshop in Skull Base Surgery for Residents and Fellows in Neurosurgery and ENT. Members of the LSU ENT Department who are actively engaged in skull base surgery include Drs. Nuss, Moisés Arriaga, Rohan Walvekar, Kevin McLaughlin, Michael DiLeo, Rahul Mehta and Henry Barham.



Dr. Daniel Nuss (center) and LSU Chairman of Neurosurgery Dr. Frank Culicchia (right) working together to remove large skull base tumor (inset).

The Residency Program and Other Educational Activities

The Department's primary educational responsibilities are focused on Otolaryngology Residents, Medical Students, and Fellows. In addition, because of the inherently multi-disciplinary nature of Otolaryngology, we are also privileged to share overlapping didactic and clinical educational experiences with residents in other disciplines, including Surgery, Neurosurgery, Plastic & Reconstructive Surgery, and others.



Distinguished Professors of Anatomy and Otolaryngology: William Swartz, PhD and Richard Whitworth, PhD, who work closely with ENT Residents and Faculty in our surgical educational programs and research.





Like most Otolaryngology residencies, our program is a five-year experience that begins with a focused 1-year internship, with rotations in Surgery, ICU, ER, Neurosurgery, Anesthesia, and other related disciplines. The 2nd through 5th years are designed to give each resident a balanced experience in General Otolaryngology as well as each of the subspecialties, including Head and Neck Surgery, Otology and Neurotology, Laryngology, Voice, Airway and Swallowing Disorders, Facial Plastic and Reconstructive Surgery, Pediatric Otolaryngology, Skull Base Surgery and Rhinology, Sinus and Allergy.

Our residents serve their rotations in 8 hospitals throughout the region, giving them an ideal balance of public and private hospital experiences. Our program emphasizes a well-supervised, curriculum-driven succession, with progressive responsibility for patient care based on the individual's achievement of milestones and demonstration of core competencies, including surgical knowledge and technical ability. As a surgical specialty, we embrace a hands-on model of surgical training that begins early in the residency, starting in the Anatomy lab,

continuing with simulation of surgical exercises, and engaging residents with faculty and fellows (see page 17) who facilitate their firsthand surgical learning. At completion of their residency, our residents graduate with a high-volume surgical experience that is both robust and varied.

We also firmly embrace our role in teaching Medical Students. Otolaryngology is an essential area of knowledge for every physician, and we engage medical students in a broad range of experiences that are applicable to their needs regardless of what specialty they ultimately choose.

Beyond residents and medical students, we have active preceptorships and lectures for Physicians' Assistant students, Nursing students, and students of the Allied Health Professions, especially Audiology and Speech-Language Pathology. In our labs we also have Graduate Students and Postdoctoral Fellows. We also lecture to high school students throughout the region. Finally, we also conduct regular seminars, CME-accredited lectures, courses and conferences targeted for practicing professionals. While most of our educational sessions are intended for



LSU Otolaryngology Residents in interactive mode at Didactic Day session.



Assistant Professor Dan Fink MD volunteers for examination by Resident Physician Collin Sutton, MD, to emphasize a laryngeal teaching point.

Otolaryngologists, we also offer courses and updates for Primary Care Physicians and Emergency Medicine Physicians.

LSU ENT Residents spend more than 20 hours each month in didactic learning. We have adopted a format of several weekly conferences, in combination with a once-monthly Didactic Day -- one full day per month that is dedicated exclusively for education. Didactic Days include roundtable discussions of all inpatients; seminars and interactive learning sessions focused on specific topics in subspecialties of Otolaryngology; and a new regular feature that we refer to as "SQUIMM Rounds" (see inset). On "D-Day", residents do not have any assigned clinics or surgeries, and their time is strictly protected for these educational activities.

One unique feature of our residents' experience in New Orleans is a combined LSU-Tulane rotation, where residents from both otolaryngology programs share responsibility for patients. This collaborative rotation between the two schools began in the Interim LSU Hospital (ILH) several years ago and transitions to the new University Medical Center in 2015.

We use Telemedicine for educational conferencing between sites, and we have used it extensively for delivery of patient care as well, especially in the first few years after Hurricane Katrina. This has proven extremely effective not only for teaching, but for patient satisfaction and treatment planning sessions. We have published our experiences in the Otolaryngology literature.



SAFETY FIRST: "SQUIMM Rounds"

In light of the Institute of Medicine's series of reports outlining safety concerns and inconsistencies in the quality of care in US hospitals, the LSU School of Medicine and its hospitals have taken a number of steps to ensure that the care we provide is always optimal. Along these lines, the Department of Otolaryngology has adopted an aggressive approach that is a new twist on the traditional Morbidity and Mortality Rounds (M&M).

We have introduced, as part of our regular patient care conference schedule, a Safety, Quality Improvement, Morbidity & Mortality conference, which has become affectionately known as "SQUIMM Rounds", in which patients who experience less-than optimal outcomes, or so-called near-miss safety events, are systematically reviewed. Beyond the traditional M&M, these discussions not only outline the patients' experiences, but they also examine the available medical literature relevant to each case, and then look at the processes, decision-making, and care delivery systems that may have contributed to the events.

Faculty Spotlight



Anna Maria Pou, MD

Dr. Anna Maria Pou, Professor and Administrative Vice Chair, is Director of Safety and Quality. With her oversight, and as a result of these SQUIMM Rounds analyses, we have implemented Safety and QI protocols in our hospitals that promise to improve outcomes for future patients. A number of these protocols have been presented at local, regional and national safety forums.

Dr. Pou, in her previous role as Program Director, helped

to restore our educational programs after Katrina. She is a renowned head and neck surgeon and educator, and has traveled and lectured extensively on Medical Ethics as well as Disaster Preparedness for professionals.

THE HOSPITALIST IN OTOLARYNGOLOGY:

Amplifying Quality for Both Education and Patient Care

In late 2013, our high-volume specialized surgical services and our robust residency program crossed a new threshold when Dr. Phillip Allen joined the department. As an experienced, full-service general otolaryngologist with more than a decade of private practice experience, Dr. Allen came with the idea that an ENT surgeon could be the perfect person to coordinate care for hospitalized patients who undergo highly specialized ENT surgeries, and at the same time could oversee the daily teaching experiences for young residents and students.



Dr. Phillip Allen

This unique "ENT Hospitalist" role had only been implemented at a handful of academic centers, and he saw an opportunity to help define this new specialty. Benefits for patients have included improved continuity of care and increased attention to details that reduce complications, get patients moving sooner, and facilitate earlier discharge. Benefits to students and residents have been immeasurable, including daily 6AM teaching rounds, one-on-one and timely supervision of consults, and personalized mentoring that

emphasizes lessons that can only be learned at the bedside, in the context of hands-on care.

In our public hospitals we are engaging our attending General Otolaryngologists similarly, benefiting patients and trainees alike.



Robert G. Peden, MD



Jennifer L. Daigle, MD



Laura Pelaez, MD

► The Residency Program and Other Educational Activities

continued from previous page

Now fully past all the setbacks of Hurricane Katrina, our residency program and its related educational endeavors have been quite successful in recent years:

- We applied for, and received, ACGME approval to expand the residency program from three residents per year, to three-alternating-with-four every other year.
- We established a 2-year ACGME-accredited Neurotology/Skull Base Surgery fellowship program (see page 17).
- We have established, through generous donations and educational grants from alumni and friends, three dedicated ENT Surgical Dissection Laboratories in New Orleans, Baton Rouge, and Lafayette. Each of these labs, whose function is well beyond the traditional Temporal Bone Laboratory found in most ENT departments, has been equipped for continued surgical education that includes not only temporal bone dissection, but also expanded capabilities for practicing surgical approaches applicable to the entire head and neck region, including skull base and intracranial anatomy. In the latter application, this lab is a joint venture with the LSU Department of Neurosurgery (Frank Culicchia, Chairman).
- The Department hosts four temporal bone dissection courses each year, under the direction of Dr. Moisés Arriaga. These courses (held in the LSU-Russell Klein MD Center for Advanced Practice) attract our own residents, residents from Tulane ENT, LSU Neurosurgery, and other regional programs, and practicing physicians who attend for CME purposes.



The Hidden Treasure A treasure which goes without notice, it blossoms before many, but still not acknowledged. It's broad shoulders spread wide in an embrace. But immune to the touch, are so many. This treasure knows all, understands all, has faith in all, loves all, and respects all. It asks of us nothing. But a warm smile, a Kindword, polite conversation, an act of Kindness, a word of encouragement, a nod of confidence. All done because we can, and not because we must. Acts done through thoughtfullness and not through responsibility. These are the essence of a true treasure, A treasure which is a product of Date: July 17,2015 Written By: Thadleus J. Larry Purpose: An acknowlegment of the hard work and dedication of the staff at University Hospital & Clinics



Faculty Spotlight



Michael DiLeo, MD: Teaching By Example

The education of LSU Otolaryngology residents after Hurricane Katrina took a leap forward in February 2007, when Dr. Michael DiLeo joined the department. As an accomplished Head and Neck Oncologist with expertise in Microvascular Reconstructive Surgery, Dr. DiLeo was well established in a successful private practice. But when our then-small group of LSU head

and neck cancer surgeons started to treat patients in Baton Rouge, he saw not only an opportunity to more broadly apply his surgical talents, but also a chance to help build a great residency learning experience in a new location.

Now, working a high-volume cancer practice with multiple cancer surgeons, "Dr. D", as the residents affectionately call him, has become the go-to person on our team for microvascular free-flap reconstruction. This tedious work restores form and function after cancer has destroyed critical parts of the head, face, mouth and neck. He regularly transplants major segments of muscle, skin, bone and connective tissues from the leg, abdomen, back, arm, or chest wall, and then re-connects the microscopic blood vessels of these transplanted tissues to recipient blood vessels in the neck or face, with success rates in line with national bests.

In the process, he is responsible for instructing residents in the basic science, anatomy, physiology and practicality of cancer reconstruction, in the process exposing them to the meticulous world of microsurgery, the rigorous demands of vigilant patient monitoring, critical care, and sound, ethical surgical judgment. Mike has been repeatedly recognized for his contributions to resident education, as a favorite surgical mentor, as Teacher of the Year, and Alumnus of the Year.

As a surgical specialty, we embrace a hands-on model of supervised operative training that begins early in the residency, and our residents graduate with a high-volume surgical experience that is both robust and varied.

Residents and Fellows 2005-2015

2007

2005



Jason Hunt, M.D.

Lee A. Miller, MD

Christopher G. Trahan, MD



2006





Robert E. Ostendorf, MD



Justin M. Tenney, MD



Colin Pero, MD

2008





Donale D. Beahm, MD



Emily L. Burke, MD



2010

Sean Weiss, MD



Amy Rabalais, MD

Duncan Hanby, MD



Brad LeBert, MD

2011



2012



Jacques Gaudet, MD



Bridget Loehn, MD

Matthew Bowen, MD

2013



2014

Laura Pelaez, MD

Meghan Wilson, MD



2015









Neelima Tammareddi, MD



Annual LSU Otolaryngology Faculty and Residents' Retreat. In this yearly forum, Residents and Faculty engage in collaborative program building and strategic planning aimed at continual improvement in education and clinical care.



Sarah Pena and Kevin Taheri celebrate completion of their residency with Dr. Nuss



Samuel Spear, MD (Fellow)







The LSU Otolaryngology Credo

This Code will be known, owned and embraced by all physicians in the Department.

OUR MOTTO IS:

"We are professionals in service to those in need", and as physicians, we live this motto according to the oaths of Hippocrates and Maimonides.

Our common goals are excellence in patient care, education and research.

As members of a team, we always support one another in our work.

We actively look for ways to help each other achieve our common goals.

We expect the best from ourselves, and from all in our department.

We treat everyone with dignity, respect, honesty and basic human kindness.

We care about and are responsible to each other, to our patients and to all of our co-workers.

We communicate professionally, courteously and constructively.

We conduct ourselves unselfishly as representatives and ambassadors for our Profession, our Department, and for LSU, both in and outside of the work place.

-Daniel W. Nuss, MD, FACS

Residents and Fellows Through the Years

Cecil R. Branson, MD

1930	1943	1956	1968	1978
S. B. McNair MD	F. W. Raggio, MD	Daniel Lubrano, MD	Thomas E. Tate, MD	Charles F. Mitchell, MD
	Frank Lhotka, MD		John F. Klees, MD	Daniel F. Mouney, MD
1932		1957		Monty J. Rizzo, MD
H. F. Brewster, MD	1944	Edward M. Plowman, MD	1969	
	Roy T. Lombardo, MD		Clinton LaGrange, MD	1979
1933		1958	James L. Bradford, MD	Michael V. Elam, MD
H. A. Thomas, MD	1945	George D. Lyons, MD		David G. Fourrier, MD
G. T. Johnson, MD	Jack R. Hays, MD		1970	Edwin B. Ross, MD
		1959	John Calhoun, MD	
1934	1946	Norma L. Kearby, MD	John Pallin, MD	1980
None	Ignacio Mijares, MD			Robert E. Owens, MD
		1960	1971	Pierre G. Rivet, MD
1935	1947	Armand A. Jacques, MD	Joseph J. Creely, Jr., MD	Donald Roberts, MD
None	Anthony Failla, MD	Joseph P. Palermo, MD	Lester Dulitz, MD	
				1981
1936	1948	1961	1972	Jack L. Breaux, MD
Jeanne C. Roeling, MD	None	Christian J. Haindel, MD	Joel Lubritz, MD	Frank Fazio, MD
W. J. Nelson, MD			Paul R. Zehnder, Jr., MD	Gerald W. Vocke, MD
•	1949	1962		,
1937	Ned W. Holland, MD	Donald N. Matheson, MD	1973	1982
J. R. Phillips, MD		Barry R. Pate, MD	Clyde Landrum, MD	Thomas A. Hansbrough, MD
• /	1950	, , ,	Robert Peden, MD	Dennis M. Occhipinti, MD
1938	William J. Oldham, MD	1963		Michael Vidrine, MD
None		Charles Abdo, MD	1974	· /
	1951	Curtis Boyette, MD	Michael Ellis, MD	1983
1939	Thomas J. Casanova		Ray J. Lousteau, MD	Robin J. Barry, MD
None		1964		Anthony J. Martinez, MD
	1952	Thomas Fields, MD	1975	Bruce B. Redmon, MD
1940	Crawford H. Cleveland, MD	James T. Pate, MD	James S. Soileau, MD	Stanley E. Peters, MD
Allan J. Fields, MD	Robert J. Young, MD	3	Guy P. Zeringue, MD	
7 a.a 501 101a0, 1 12	7.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5	1965	Micheal L. Robichaux, MD	1984
1941	1953	George A. Adcock, Jr., MD		David M. Chihal, MD
Leon Hart, MD	Henry H. Tippins, MD	(1)	1976	Stephen Goodwin, MD
J. T. Simmons, MD	/	1966	Marion L. Dodson, MD	Michael Lifsey, MD
	1954	James D. Gordon, MD	Herbert W. Marks, MD	James D. Moser, MD
1942	None	John C. Hart, MD	3,13,0312,1111,10110,1110	241100 211-10001, 1-12
Gerald F. Joseph, MD	. 15115		1977	
Coldia i i socopii, i i is	1955	1967	Jeffrey P. Chicola, MD	
	William C. Stephens, MD	Phillip H. Blodget, MD	Dennis A. Casey, MD	
	Trimani C. Stephens, 1415	i imip i i biougot, i ib	Doi::::::::::::::::::::::::::::::::::::	

Louis G. Cucinotta, MD

Maynard E. Garrett, MD

1985 E. James Garitty, III, MD Charles W. Gates, MD Charles A LeBlanc, MD R. Daniel Jacob, MD	1992 Peggy Battalora, MD Robert Brousse, MD Jaime Garza, MD Jeffrey Joseph, MD
1986	1993
Ronald G. Amedee, MD	David J. Bailey, MD
Dominic Foti, MD	Salem K. David, MD
Bryce J. LeBlanc, MD	Stephen E. Metzinger, MD
Michael B. Lyons, MD	Kenneth L. Odinet, MD
1987	1994
Mary A. Fazekas, MD	Virginia A. Bringaze, MD
Paul A. Guillory, MD	James S. Kadi, MD
Daniel W. Nuss, MD	Ratnamani Lingamallu, MD
Gerard F. Pena, MD	Peter L. Rigby, MD
1988	1995
Bradley J. Chastant, MD	Russell P. Cecola, MD
Marc H. Routman, MD	Nancy M. Mellin, MD
Dale G. Salatich, MD	Paul L. Friedlander, MD
Renick P. Webb, MD	Patrick C. Hagen, MD
1989	1996
David J. Foreman, MD	Wilson T. Barham, MD
Evelyn A. Kluka, MD	Joseph J. Creely, III, MD
Michael Hagmann, MD	Michael Joseph Simmons, MD
Steven A. Scalco, MD	John D. Sobiesk, MD
1990	1997
Susan M. Anthony, MD	Mary Lisa Leonard, MD
Louis C. Hebert, MD	Matthew Kirk Money, MD
Brian J. Petit, MD	Vincent Joseph Pisciotta, MD
Peter M. Spinella, MD	Joseph Badeaux, MD
1991	1998
R. Graham Boyce, MD	Kathy L. Chauvin, MD
J. Vance Broussard, MD	Michael G. DeSalvo, MD
James C. Walker, MD	Jon G. Traxler, MD

Lesley M. Warshaw, Jr., MD

1999 Maria Messina-Doucet, MD Michael J. Hammett, MD Catherine S. Smith, MD
2000 Lizabeth F. Clarke, MD Lisa B. David, MD Chen Xie, MD
2001 Clayton R. Bratton, MD Ingrid C. Iwanow, MD
2002 Brian C. Kerr, MD Patricia Elise Scallan, MD Guy P. Zeringue, MD
2003 Brytton B. Eldredge, MD James Mark Harrison, MD Matthew H. Steele, MD
2004 James M. Roth, MD Douglas L. Smith, MD
2005 Jason P. Hunt, MD Lee A. Miller, MD Christopher G. Trahan, MD
2006 Michael Hanemann, MD Sonu A. Jain, MD Robert E. Ostendorf, MD

2007

Christian Hall, MD

Justin M. Tenney, MD

2008 Jennifer Daigle, MD Colin Pero, MD 2009 Donald D. Beahm, MD Emily L. Burke, MD 2010 Sean Weiss, MD Amy Rabalais, MD Duncan Hanby, MD 2011 Brad LeBert, MD Marcie Tauzin, MD 2012 Jason Durel, MD Jacques Gaudet, MD Geoffrey Peters MD 2013 Matthew Bowen, MD D'Antoni Dennis, MD Bridget Loehn, MD 2014 Laura Pelaez, MD Meghan Wilson, MD 2015 Celeste Gary, MD Sarah Pena, MD Kevin Taheri, MD Neelima Tammareddi, MD Samuel Spear, MD (Fellow)

2016 Neal Jackson, MD Peter McGuire, MD Collin Sutton, MD 2017 Evan Longfield, MD Suzanne Smart, MD Christopher Tran, MD Joshua Sappington, MD (Fellow) 2018 Rachel Barry, MD Stephen Hernandez, MD Jason Trahan, MD 2019 Mathieu Forgues, MD Elizabeth Grier Gardner, MD Victoria Givens, MD Anne Kane, MD 2020 Marcus Hershey, MD Erica Jackson, MD Vilijia Vaitaitis, MD



Awards, Achievements & Special Recognition

2015

Top Doctor Award- Castle Connolly

ARRIAGA		FARRIS		JEYAKUMAR	2	
2002 - 2009	Pittsburgh Magazine's, Top Doctors	2005	NIH NRSA Post-Doctoral Fellowship:Title:	2007	Ferguson Research Award, ASPO	
2005	New Orleans Magazine's, Top Doctors		Mechanical Tuning in Auditory Sensory Hair Bundles			
2006	Distinguished Service Award – American Academy of Otolaryngology – Head and Neck Surgery	2005-2006	NIH NRSA Post-Doctoral Fellowship:Title: Quantifying the role of Calcium in Mechano- transduction	2009	Faculty Teaching Award, Department of Oto- laryngology, Washington University School of Medicine	
2009 - 2012	"Who's Who in America"	2009	Grass Faculty Award. Marine Biological Labora-	2010	Nominee St Luke's Faith Healer Award	
2001 - 2013	Castle Connolly Medical Ltd.'s Top Doctors in		tory, Woods Hole, MA.	2010	NIDCD Administrative Research Supplement	
0000 0040	America		Title: Neurophysiology of sound localization in	2013	Castle Connolly Top Doctors	
	Louisiana Life "Top Doctors"	2042	túngara frogs	2013	Featured in Marqui's Who's Who	
2010 - 2013	Listing in Executive Registry of Who's Who	2012	Aesculapian Society Excellence in Teaching Nominee L1 Spring	2014	Castle Connolly Top Doctors	
·	Acoustic Neuroma Association designation as Center of Excellence in Directory	2013	Aesculapian Society Excellence in Teaching Award L1 Spring	2014	Honors Award-American Academy Otolaryn- gology-Head and Neck Surgery	
1998 - 2014	The Best Doctors in America	2014	Allen A. Copping Excellence in Teaching Award,	2015	G-I-N Scholars Award- American Academy	
2014	Faculty Supervisor, TOROK Award, American Neurotology Society		School of Medicine		Otolaryngology-Head and Neck Surgery	
	Rahul Mehta, MD Recipient	2015	Aesculapian Society Excellence in Teaching Award	KUNDUK		
2014	Faculty Supervisor, AOS Travel Award, American Otological Society	HETZLER		at the Center	vard in the Early Career Reviewer (ECR) program for Scientific Review (CSR), National Institute of .csr.nih.gov/ECR) 2012.	
	Neal Jackson, MD Recipient	2013	Residency Program Director	Participant award, 2 nd American Speech and Hearing Association-2nd Annual Clinical Practice Research Institute, 2010. ABEA 3 nd place poster award. Hanby, DF*, McWhorter J A, Kunduk M . Repair of Pharyngocutaneous Fistula after Total Laryngectomy: A Novel Endoscopic Approach. 2008 Combined Otolaryngology Societies Meeting (COSM) Orlando, Florida.		
BRICKMAN		2010, 2013	Horizon Community Church Mission Trip,			
2007	AAO-HNS Travel Grant	2009	Orange Walk, Belize SMILE CHINA Mission Trip, Nanning, China			
2007	Listing in "Guide to America's Top Physicians"	2009				
2010	Faculty Teaching Award, St Louis University	2009	Adam T. Ross, MD Memorial Grant Award nom- inee			
	Department of Otolaryngology- Head & Neck Surgery.	2008	"Magis Star" Award- Loyola University Medical Center	can-Speech-L	Aneesha Virani* (LSU-COMD) recipient of the American-Speech-Language Hearing Foundation's Graduate Student Scholarship for International Students, 2010. Mentor: Kunduk M .	
2011	Elected AO North America Faculty	2008	3 rd Place Lederer-Pierce Research Competition:			
2011	Elected American College of Surgeons Fellow		"Accelerated Rat Facial Nerve Recovery: Testos- terone + Electrostimulation"	Allison Gish*(LSU-COMD) recipient of American Speech-Lan-		
2013	Lawrence V. Conway Distinguished Service Award for Advancing the Medical Well Being of People Throughout the World	guage-Hearing Association's Students Pregadents Pregade				
2014	Top Doctor Award- Castle Connolly		terone + Electrostimulation"			

-	N	
	14	_

Outstanding Research Contributions, Young Faculty Award, LSU Neuroscience Center of Excellence, December 2012

Travel Fellowship Award to present at the XVIth International Symposium on Retinal Degeneration (RD2014), Pacific Grove, CA, July 2014

MCLAUGHLIN

2005	"America's Top Physicians"-Otolaryngology/ Sleep Medicine
2006	"America's Top Physicians"-Otolaryngology/ Sleep Medicine
2007	"America's Top Physicians"-Otolaryngology/ Sleep Medicine
2008	"America's Top Physicians"-Otolaryngology/ Sleep Medicine

MCWHORTER

Distinguished Service Award-Department of Otolaryngology-Head and Neck Surgery, Louisiana State University Health Sciences Center 2011

Southeastern Louisiana University, Significant Partnership Award, Department of Communication Sciences & Disorders College of Nursing and Health Sciences, Presented to Our Lady of the Lake Voice Center 2008-2009

3rd place poster

American Bronchoesophagology Association

Annual Meeting Orlando, Florida 2008

MEHTA

May 2014 Nicholas Torok Vestibular Award. 1st Prize for innovative vestibular clinical research given by American Neurotology Society.

April 2012 1st Prize - Guidelines and audit implementation – Northern Ireland for changing Stridor management protocol In Royal Belfast Hospital for Sick Children.

March 2012 2nd Prize- Chairman's Award- Belfast Health and Social Care Trust. Received sum of 2500 pounds for Pediatric ENT Services.

NUSS

2015	Selected as Director for Head and Neck Service Line, University Medical Center-New Orleans
2012	LSU School of Medicine Alumnus of the Year
2011-2012	"US News and World Report" ranked top 1% of Ear, Nose, and Throat Doctors in the nation.
2010	Selected by peers to be featured in "Best Doctors in America".
	"- · - " · - " · · · · · · · · · · · · ·

2010 "Faculty Excellence in Teaching Award"

2010 Served as Secretary of the World Federation of Skull Base Societies

2008-09 President, North American Skull Base Society

Selected as one of "America's Top Doctors for Cancer" in fourth edition of Castle Connolly's Guide to the top medical specialists in the

nation, September 2008.

2005-2006 America's Top Doctors for Cancer, in Castle

Connolly's Guide to the top medical specialists

in the nation

PEDEN

2008

LSUHSC Department of Otolaryngology Head & Neck Surgery – Distinguished Teaching Award, 2009

LSUHSC Department of Otolaryngology Head & Neck Surgery – Alumnus of the Year Award. 2013

PELAEZ

Academic Recipient of George Lyons Award for Excellence in Otolaryngology, 2009

POU

Distinguished Teaching Award, Department of Otolaryngology-Head and Neck Surgery, Louisiana State University Health Sciences Center, 2007

Ochsner Clinic Foundation Department of Otolaryngology 2006 Francis C. Le Jeune Award in Otolaryngology, Head and Neck Surgery.

Louisiana State University School of Medicine Humanism in Medicine Award, July 26, 2008.

Jerome C. Goldstein Public Service Award, American Academy of Otolaryngology-Head and Neck Surgery, September, 2008.

American Academy of Otolaryngology-Head and Neck Surgery Board of Governors Recognition Award for Outstanding Humanitarian Service, March, 2009.

American Head and Neck Society Presidential Citation, May, 2009.

Louisiana's Top Docs. 2010, 2011, 2012, 2013, 2014

Best Doctors in American, 2010, 2011, 2012, 2013, 2014

WALVEKAR

University of Pittsburgh School of Medicine Recognition Award for contributions to the Clinical Experience Course, 2007

Union of International Cancer Control Fellowship for training in Laser surgery for head and neck cancers in Keil, Germany, 2010

New Orleans Magazine, Top Doctors (2009,2010 & 2011)

Best Doctors in America (2011, 2012, 2013 and 2014)

Nominated for Outstanding Young Faculty Member LSU Health Sciences Center – 2011 -2012.

Nominated by Aesculapian Society for Young Faculty Teacher Award LSU School of Medicine 2012

Nominated by peers for General Faculty Assembly LSU School of Medicine 2012

Nominated by Aesculapian Society for Junior Faculty and Attending Teaching Award of Excellence LSU School of Medicine 2013

Featured in Krewe Du Cancer/ Al Copeland Foundation Charity Event as Treating Surgeon for Cancer Survivor, 14th September 2013, New Orleans, LA

Identified as Key Opinion Leader (KOL) in Sialendoscopy by Karl Storz 2014 – LSU one of three institutions identified to serve as proctoring site for sialendoscopy

Nominated for Young Faculty of Year Teaching Award – LSU Aesculapian Society 2011-2012

Outstanding Teacher of the Year Award – LSU Department of Otolaryngology Head Neck Surgery 2014

Mervin L. Trail Head and Neck Oncology Endowed Chair 2014

Acknowledgements

In addition to those who have been recognized in the preceding pages, the Department of Otolaryngology gratefully acknowledges the hard work, dedication, support and commitment of each of the following special people and institutions who played important roles in our progress since 2005. Some served in official capacity as LSU faculty, residents and staff; others were not formally affiliated, yet their involvement and support were substantial. This list is not exhaustive, and because we cannot name every individual who helped along the way, we simply and sincerely say "thank you" to everyone who contributed to our department's recovery and considerable development over the past decade.

In the Department:

All of the LSU Otolaryngology Residents who have helped to rebuild their unique Program

All of the LSU Otolaryngology Faculty who have helped to rebuild their unique Program

All of the LSU Otolaryngology Staff, with special recognition to:

Annette Barnes, RN- Mrs. Deanna Loerwald - Alison Kern, CPA - Ms. Chelsea Scarpuzzi

Faculty members present at the time of Katrina who have subsequently relocated:

- Dr. Evelyn Kluka Dr. Peter Rigby Dr. Nicole Murray Dr. Paul Friedlander
- Dr. Mary Fazekas-May

Faculty members who joined the Department after Katrina and have subsequently relocated:

 Dr. David Beahm - Dr. Vlad Zuzukin - Dr. Larry Simon - Dr. James Lin - Dr. Mary Ying

Dr. R. Graham Boyce - Dr. R. Patrick Cecola - Dr. Herbert Marks

Ms. J. V. O'Rourke – Mr. Dane Blanchard – Dr. George Lyons – Dr. Mervin L. Trail (*in memoriam*) – Judith Hull – Dorothy Neill – Amelia Fernandez

All who contributed to the LSU Otolaryngology Alumni Fund, the George D. Lyons Chair, and the Mervin L. Trail Chair

All who forged the legacy of the Kresge Hearing Research Lab, especially:

Dr. Richard Bobbin - Dr. Douglas Webster - Dr. Linda Hood - Dr. Bronya Keats - Dr. Charles Parkins

At LSUHSC and in New Orleans:

Dr. Larry Hollier - Dr. Steve Nelson - Dr. Janis Letourneau - Dr. Charles Hilton

Dr. Frank Culicchia - Dr. Becky Odinet Frey - Dr. Russell Klein - Dr. Sam McClugage

The Department Heads, Center Directors, and Faculty of the LSU Health Sciences Center

Dr. Nicolas Bazan and the LSU Neurosciences Center

The Doctors, Nurses, Staff, & Administration of Charity Hospital

The Doctors, Nurses, Staff & Administration of Interim LSU Hospital and University Medical Center of New Orleans

The Doctors, Nurses, Staff, & Administration of West Jefferson Medical Center

The Doctors, Nurses, Staff, & Administration of Children's Hospital of New Orleans

The Doctors, Nurses, Staff, & Administration of Touro Infirmary

Dr. Ray Lousteau - Dr. Robert Owens - Dr. Bryce Leblanc - Mr. Ron Gardner

The Community of Otolaryngologists throughout Greater New Orleans

Sister Camille Anne Campbell - Miss Beth Ann Simno - Mr. P.J. Ciaccio

In Baton Rouge:

Mr. Robert Davidge - Mr. Scott Wester - Ms. Allison Walker - Mrs. Elona Sharbaugh

The Sisters and Administration of the Franciscan Ministries of Our Lady

The Doctors, Nurses, Staff, & Administration of Our Lady of the Lake Regional Medical Center

Mrs. Nancy Gosserand - Ms. Lamonica Butler - Dr. Laurinda Calongne

The Doctors, Nurses, Staff, & Administration of Earl K. Long Medical Center and LSU Health Baton Rouge

The Doctors, Nurses, Staff, & Administration of the Mary Bird Perkins Cancer Center, especially:

Mr. Todd Stevens - Dr. Robert Fields - Dr. Sheldon Johnson - Dr. Maurice
 King - Dr. Kenneth Lo - Dr. Bryan Bienvenu - Dr. Charles Wood - Dr. Greg
 Henkelmann - Dr. Mary Ella Sanders - Marilyn Shalley-Damberg - Linda Lee

The Physician Community of Greater Baton Rouge:

Dr. Stanley Peters - Dr. Thomas Hansbrough - Dr. Jon Traxler - Dr. Elise Scallan - Dr. Jack Breaux - Dr. Larry Braud - Dr. Cheryl Braud - Dr. Lynn Murphy - Dr. Kevin Katzenmeyer - Dr. Virginia Bringaze - Dr. Kelly Clements - Dr. Brian Petit - Dr. Frank Fazio - Dr. Stan Montelaro - Dr. W. Lee Bruner - Dr. Charles Mitchell - Dr. Charles Andre' Leblanc - Dr. Ryan Boone - Dr. Christian Hall - Dr. Guy Zeringue, Jr. - Dr. Paul T. Gaudet - Dr. Vance Broussard - Dr. Guy Zeringue, III - Dr. Justin Tenney - Dr. Jacques Gaudet - Dr. Jim Garitty - Dr. David Fourrier -Dr. James Krupala - Dr. Michael Hanemann - Dr. Dwayne Anderson - Dr. Christian Morel - Dr. Anthony Harton - Dr. Taylor Theunissen - Dr. Albert Alexander - Dr. Faith Hansbrough - Dr. Ryan Majoria - Dr. James Craven - Dr. Richard Vath - Dr. Keith Rhynes - many others

The Doctors, Nurses, Staff, & Administration of The Neuromedical Center, especially:

• Dr. John Clifford - Dr. Kelly Scrantz - Dr. Luke Corsten - Dr. Allen Joseph - Dr. Scott Soleau - Dr. Fraser Landreneau (in memoriam) - Dr. Jon Olson

In Lafayette:

Dr. & Mrs. Bradley Chastant

Mrs. Stefanie Ardoin

Ms. Annette Barnes, RN

Mrs. Tina Best

Mrs. Sarah Hazelwood Lopez

Dr. Jeffrey Joseph - Dr. Jennifer Daigle-Hanby - Dr. Jason Durel

The Nurses, Staff, & Administration of Acadian ENT

Dr. James Falterman – Dr. C. Barrett Alldredge – Dr. Joseph Badeaux – Dr. Wilson Barham – Dr. Robin Barry – Dr. Kim Dakin – Dr. Lisa David – Dr. Maria Doucet – Dr. Gregory Duplechain – Dr. Kevin Duplechain – Dr. Chester Finley – Dr. David Foreman – Dr. Richard Hebert – Dr. Denbo Montgomery Jr. – Dr. Phillip Noel – Dr. Kenneth Odinet – Dr. Mark Petitiean – Dr. Monty Rizzo – Dr. Robert Tarpy

Dr. James Walker - Dr. Lesley "Chip" Warshaw - Dr. Renick Webb - Dr. Brad
 Lebert - Dr. Bridget Loehn - Dr. Paul Guillory - Dr. Alan Appley

The Doctors, Nurses, Staff, & Administration of Lafayette General Medical Center The Doctors, Nurses, Staff, & Administration of Lafayette General Surgical Hospital

The Doctors, Nurses, Staff, & Administration of University Hospital and Clinics

Individuals whose influence, input, encouragement and involvement were invaluable:

Dr. Eugene Myers – Dr. Jonas Johnson – Dr. Ivo Janecka – Dr. Scott Stringer – Dr. Jeffrey Myers

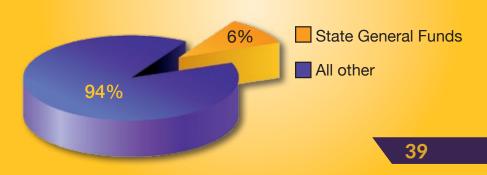
Dr. Ehab Hanna – Dr. Michael Lyons – Dr. Richard Waguespack – Dr. Franco deMonte – Dr. Mark Varvares – Dr. David Eisele

Special Appreciation to all of our Families and Friends, for their loving and constant support through the arduous recovery and transformation of our department.

"Did You Know?"

The Department of Otolaryngology is almost completely funded by self-generated revenues, including income from the clinical work we do, from research grants, philanthropy, and from other non-state sources.

Department Revenue Sources



Otolaryngology Department Head



Daniel W. Nuss, MD
Professor and Chairman

-Head & Neck Surgery –



Anna M. Pou, MD

Professor and Administrative Vice Chair

Associate Professor

Associate Professor



Todd M. Brickman, MD
Assistant Professor



Michael D. DiLeo, MD Clinical Assistant Professor

\neg Otology & Neurotology \lnot



Mloises A. Arriaga, MD
Clinical Professor



Rahul Mehta, MD Assistant Professor

Audiology -



Elizabeth Montgomery, AuD



Patti St. John, AuD

Laryngology and Speech Pathology —



Andrew J. McWhorter, MD
Associate Professor



Daniel L. Fink, MD
Assistant Professor



Melda Kunduk, PhD, CCC-SLP
Teaching Associate

Rhinology



Kevin E. McLaughlin, MD
Clinical Assistant Professor

Pediatric Otolaryngology



Henry P. Barham, MD Assistant Professor

Facial Plastic and Reconstructive Surgery



Laura T. Hetzler, MD
Assistant Professor
and Program Director



Bradley J. Chastant, MD Clinical Professor



R. Graham Boyce, MD Clinical Associate Professor



Jeffrey J. Joseph, MD Clinical Assistant Professor



Sohit Kanotra, MD Assistant Professor



Anita Jeyakumar, MD
Assistant Professor



Michael A. Hagmann, MD Clinical Assistant Professor



Michael Dunham, MD Associate Professor, Director, Pediatric ENT

General Otolaryngology -



Robert G. Peden, MD Clinical Associate Professor



Laura Pelaez, MD Assistant Professor



Jennifer L. Daigle, MD Clinical Assistant Professor



Jacques E. Gaudet, MD Clinical Assistant Professor



Jacques C. Peltier, MD Clinical Assistant Professor



Justin M. Tenney, MD Clinical Assistant Professor



Phillip Allen, MD Clinical Assistant Professor

Research-



Chu Chen, PhD Professor



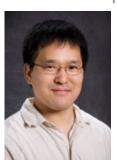
Hamilton Farris, PhD Associate Professor



Jennifer Lentz, PhD Assistant Professor



Carlos Busso, PhD Research Associate



Takeshi Ikuma, PhD Post-Doctoral Fellow

Emeritus Faculty



Charles Berlin, PhD Emeritus Professor



George Lyons, MD Emeritus Professor

Otolaryngology Staff-



C. Annette Barnes, RN
Clinical Care Coordinator



Alison Kern Business Manager



Deanna Loerwald Administrative Assistant



Andrelle Causey
Coordinator of Academic Area



Victoria Soileau Residency Coordinator



Chelsea Scarpuzzi
Coordinator of Academic Area



Therese DeMouy, MD Fellowship Coordinator

Selected Publications

- Hunt J, McWhorter AJ: Malignant neoplasms of the larynx In: Merati A and Bielamowicz S, eds: Textbook of Laryngology, San Diego, CA Plural Pub Inc 2007.
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A VISUAL TIMELINE IN A DECADE OF RECOVERY

AUGUST, 2006



of the Department

MARCH. 2005

Voice Center at Our Lady of the Lake RMC opens in Baton Rouge, LA

Dr. Anna Pou named Residency **Program Director**

Head and Neck Center at Our Lady of the Lake RMC opens in Baton Rouge, LA

Dr. Farris and Dr. Bazan receive NIH grant to study mentoring in Neuroscience research



FEBRUARY, 2007

FACULTY APPOINTMENT Dr. Michael DiLeo - 2/15/07 Dr. Rohan R. Walvekar - 7/1/08

2007

AUGUST, 2008

FACULTY APPOINTMENT Dr. Jennifer Daigle-Hanby - 8/4/08



JULY, 2008

FACULTY APPOINTMENT





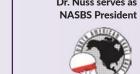
Dr. Chen receives NIH RO1 grant for COX-2 mediated

Dr. Nuss serves as

SEPTEMBER, 2009



LSU hosts NASBS 20th Annual Meeting in New Orleans





AUGUST, 2010

ACGME approved an increase in compliment for the residency program



OCTOBER, 2010

Dr. Laura Hetzler - 10/1/10



JUNE, 2011

US News & World Report regional rankings name ENT as best service at LSU Interim Hospital

On June 19, 2011 U.S. News & World Report released its top performers in healtchare. Dr. Moises Arriaga and Dr. Daniel Nuss of our Lady of the Lake Physician Group are listed in the top 1% of doctors in the nation in the Ear, Nose

NOVEMBER, 2011

LSU hosts



SEPTEMBER, 2011



Cochlear Implant **Program Reestablished** in the New Orleans and Baton Rouge area

Dr. Lawrence Simon - 3/1/12

First Sialendoscopy



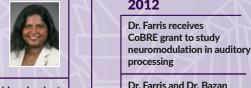


receive NIH grant to study

mentoring in Neuroscience



Dr. Anita Jevakumar - 9/1/11



OCTOBER, 2012

Dr. Jacques Gaudet - 10/1/12

JULY, 2012

Neurotology

TOP DOCTORS

DIC.

Fellowship



FEBRUARY, 2013

Drs. Hastings & Lentz receive NIH RO1 grant for correction of deafness in Usher Syndrome



Best Doctors





MAY, 2013

Dr. Chen receives NIH RO1 grant for study of Neurodegenerative



JUNE, 2013



Best Doctors

Physicians begin utilizing the da Vinci® Surgical System for robotic assisted surgery at Touro Infirmary



Dr. Farris receives

National Sciences

Foundation grant for

study of undergrad-

uate research among

underrepresented

minorities

CASTLE CONNOLLY

TOP DOCTORS

FACULTY APPOINTMENT

DECEMBER. 2013

Dr. Laura Hetzler

named Residency

Program Director





LSU/OLOL introduces **Cleft Palate Clinic**

Dr. Hetzler directs the inaugural Cleft and Craniofacial Clinic at Our Lady of the Lake Hospital

Anita Jevakumar, MD appointed to the Early Identification of Hearing Impaired Infants Advisory Council by Gov. Bobby Jinda

2014

Dr. Chen receives NIH

P30 grant for study of

neuro-signaling in

JUNE. 2014

Alzheimer's disease



JULY, 2014



SEPTEMBER, 2014







TOP DOCTORS

2015

NEW ORLEANS

2006 2005

Earl K. Long Hospital **ENT Service opens**

SEPTEMBER, 2005



Dr. Moises A. Arriaga - 06/30/05



JUNE, 2005



Dr. Kevin McLaughlin - 07/17/06





Dr. Farris receives NIH grant for study of inner ear Mechanotransduction



opens in Baton Rouge, LA

AUGUST, 2007

Hearing and Balance



Dr. Justin Tenney - 9/1/07

2008

SEPTEMBER, 2007



Center at Our Lady of the Lake RMC



NOVEMBER. 2008

2009



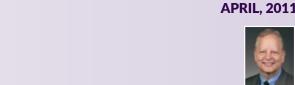
Dr. Chen receives NIH grant for study of marijuana-related neuroplasticity

SEPTEMBER. 2008



2010

Dr. Robert Peden - 11/10/08



R21 grant for prevention and treatment of Alzheimer's disease



Dr. Chen receives NIH

Dr. Daniel Nuss named

LSU Alumus of the Year

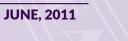
SPRING. 2011

of Health





2011

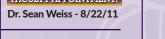


CASTLE CONNOLLY

and Throat speciality.









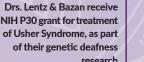
Hamilton Farris, PhD is nationally recognized after being published in **Nature Communication** Dr. Jacques Peltier - 12/1/11

AUGUST, 2011

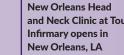


FACULTY APPOINTMENT

DECEMBER. 2011







and Neck Clinic at Touro

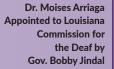
Dr. Mary Yu-Lan Ying - 8/1/12

AUGUST, 2012





JULY, 2013



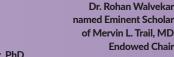
OCTOBER. 2013



2014



Jennifer Lentz, PhD



SEPTEMBER, 2014

Dr. Rohan Walvekar

of Mervin L. Trail, MD

Endowed Chair

MARCH. 2014





FACULTY APPOINTMENT:

Dr. Henry P. Barham - 8/15 **AUGUST, 2015**









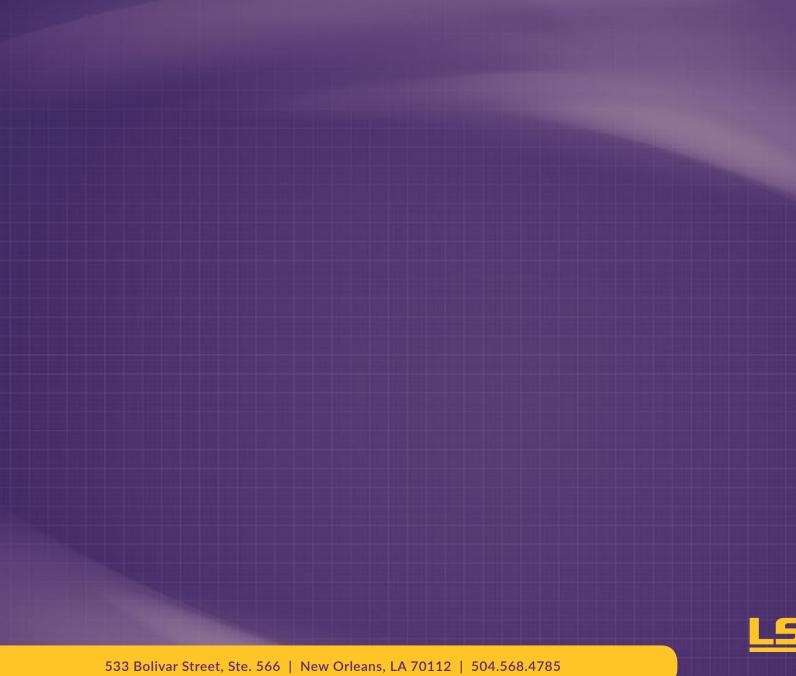






made in research on Usher Syndrome





www.medschool.lsuhsc.edu/otorhinolaryngology



Health Sciences Center
Department of Otolaryngology