

From Bench to Bedside with New Treatments for Chronic Sinus Disease



Amber Luong, M.D., Ph.D.

Since her arrival at Memorial Hermann-TMC and UT Medical School, Amber Luong, M.D., Ph.D., has focused her attention on building a translational otorhinolaryngology research program from the ground up.

Her primary interest centers on understanding the pathophysiology of allergic fungal rhinosinusitis (AFRS)

as a model for studying immune dysregulation of the paranasal sinuses. “Our research goal is the development of more directed clinical treatment options for AFRS and other conditions that are difficult to manage medically and surgically,” says Dr. Luong, who is an assistant professor in the department of Otorhinolaryngology-Head and Neck Surgery at the UT Medical School. “Learning more about AFRS will help us to design treatments for the cause of the disorder rather than the symptoms. Toward that goal, we’re collaborating with a lab that has identified a molecule called thymic stromal lymphopoietin (TSLP), which, along with interleukin 25, is known to trigger the Th2 response linked to allergic inflammation.”

The search for an effective treatment for AFRS is just one component of current research under the direction of Dr. Luong.

For more information about Dr. Luong’s research efforts, visit www.tr.im/pn06.

Rhinology Update: Advanced Rhinology Concepts CME Scheduled for November

Mark your calendars for the 2009 Advanced Rhinology Concepts CME event, scheduled for November 6-8. The course will focus on the comprehensive medical and surgical management of diseases of the nose and paranasal sinuses. A hands-on laboratory session,

featuring endoscopic surgical and video equipment, image-guidance technology, powered instrumentation and cadaveric specimens, will be available.

For more information about 2009 Advanced Rhinology Concepts, call 713.500.5410 or visit www.sinuscourse.com.

Soham Roy, M.D., Named Director of Pediatric Otorhinolaryngology



Soham Roy, M.D., F.A.C.S., F.A.A.P.

Internationally recognized speaker and author Soham Roy, M.D., F.A.C.S., F.A.A.P., has been named director of pediatric otorhinolaryngology for Children’s Memorial Hermann Hospital (CMHH) and UT Medical School.

In his new role, Dr. Roy will coordinate a revitalized pediatric ENT service at CMHH. A key feature of the program will be a collaborative arrangement through which Children’s ENT of Houston, a large, nationally recognized group of pediatric otolaryngologists, will provide services at CMHH in coordination with fulltime faculty at the UT Medical School.

“Our team will provide all aspects of pediatric ENT care, including medical and surgical management of head and neck masses, complex diseases of the ear, hearing loss and management of complex airway disorders, including subglottic stenosis, laryngotracheomalacia and sleep apnea,” says Dr. Roy, who is an associate professor in the department of Otorhinolaryngology-Head and Neck Surgery at the UT Medical School. “Working in conjunction with other pediatric subspecialists, we provide a range of tertiary care procedures, including laryngotracheal reconstruction, head and neck cancer resection, surgical management of chronic ear disease and sinus surgery.”

For more information about pediatric ENT care, visit www.tr.im/pn07.



ORL PROGRESS NOTES

A PUBLICATION FROM MEMORIAL HERMANN-Texas MEDICAL CENTER AND THE UNIVERSITY OF TEXAS MEDICAL SCHOOL AT HOUSTON

Designing the Future: New Office Space Features High-Tech Tools

The University of Texas Medical School at Houston department of Otorhinolaryngology now occupies new clinical space on the 27th floor of the Memorial Hermann Medical Plaza. The state-of-the-art office suite features 16 fully equipped exam rooms, a voice lab, a nasal physiology lab, four audiology booths and a two-room procedure suite. Each exam room is equipped with a dedicated video tower with image archive capacity. Each tower projects patient images on a 32-inch flat-panel screen that also displays patient education information from a digital media server.

The image archive features a central server that permits rapid storage and retrieval of patient examinations.

“We’re closely integrated with the Memorial Hermann Outpatient Imaging department and Outpatient Laboratory, which gives us immediate access to all patient information through our computer network,” says Martin J. Citardi, M.D.,



The new state-of-the-art office suite was designed with an emphasis on patient comfort and physician efficiency.

chief of otorhinolaryngology at Memorial Hermann-TMC and professor and chair of the department of Otorhinolaryngology-Head and Neck Surgery at the UT Medical School. “Our D-scope image archive stations are fully networked, allowing us to record high-quality still images and motion video of endoscopic exams. We have immediate access for all patient images from any exam room, and we can also archive diagnostic studies done at other hospitals. Once an exam is complete, we have the capability to create customized reports of each exam and burn them to CDs for referring physicians, who can review them through Web browsers on any PC with a CD drive.”

Dr. Citardi believes that today’s healthcare requires the

assembly of information from diverse resources and that physicians must recognize their roles as managers of a diverse information stream. “Our office is designed to manage that flow and optimize it for better patient outcomes,” he says. “Our aim is still to provide compassionate care, and we are integrating technology toward our central mission.”

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In addition, a modern nasal physiology laboratory includes an acoustic rhinometer that uses sound waves to measure the cross-sectional area of the nasal cavity. The lab features spirometry services and also houses a Rhinolux for nasal spectroscopy, which measures the state of nasal obstruction.

“Our new offices truly expand the services we can offer our patients,” Dr. Citardi says. “Patients have provided positive feedback, because they can more actively participate in their own care in comfortable surroundings. Because the office has a modular design supported by a digital backbone, we expect to be able to accommodate new technology and additional patient requirements easily and efficiently for years to come.”

Comprehensive Voice Program Offers Advanced Office-Based Procedures



Ronda E. Alexander, M.D.

New technology is allowing Ronda E. Alexander, M.D., a fellowship-trained laryngologist at Memorial Hermann-Texas Medical Center and the Texas Voice Performance Institute (TVPI) at UT Medical School, to perform many minimally invasive procedures safely in the office, improving patient satisfaction and reducing

the overall cost of treatment.

“We can now perform biopsies and remove very selected lesions in the office, saving certain patients a trip to the OR,” says Dr. Alexander, who is an assistant professor in the department of Otorhinolaryngology-Head and Neck Surgery at the UT Medical School. “For instance, we can do office-based biopsies for leukoplakia to determine whether we need to go forward with surgery since this may involve a complicated medical clearance evaluation. If we can determine that the lesion is likely to be malignant, it’s worth it for the patient to proceed with the evaluation. Other conditions can be monitored over time. Office-based procedures are particularly helpful for patients who are apprehensive about surgery and those who are poor candidates for general anesthesia due to their physical condition.”

State-of-the-art videostroboscopy provides a close look at the vibration of the vocal cords and is essential for diagnosing vocal pathology. Through real-time projection of the exam on a 32-inch flat-panel screen, patients can actually see the source of their problem. “Having this capability gives our patients a greater understanding of their particular condition and encourages them to be more involved in their own care,” Dr. Alexander says.

A collaborative effort between Memorial Hermann-TMC and the TVPI, the Comprehensive Voice Program offers patients immediate access to multidisciplinary management expertise, including neurology, gastroenterology, pulmonology, speech pathology, medical oncology and radiation oncology. Dr. Alexander is available to consult on cases involving complex speech and swallowing disorders and neuro-laryngology issues, or to assume permanent management of difficult cases.

“Our voice service collaborates closely with neurologists,” she says. “We work with the Mischer Neuroscience Institute at Memorial Hermann to provide comprehensive diagnosis and treatment of movement disorders of the head and neck. Our relationship with our Neurology department allows us to consult with the full range of neurology specialists and subspecialists on medical issues that involve both disciplines and offers our patients access to care in one location, provided by physicians in close communication.”

For more information about the Texas Voice Performance Institute, visit www.texasvoice.org.

Resources on the Web

Visit www.ut-ent.net to view the UT Medical School department of Otorhinolaryngology Web site.

ORL Progress Notes (www.orlprogressnotes.org) presents departmental news and updates.

UT ORL Update (www.utorlupdate.org) discusses medical topics of interest to the ENT community.

E-mail subscriptions are also available online.

Comprehensive Rhinology Program Offers State-of-the-Art Care for Patients with Refractory Chronic Rhinosinusitis

The Comprehensive Sinus Program, a joint effort of Memorial Hermann-TMC and the Texas Sinus Institute, is founded on four related and interdependent spheres: excellence in patient care, quality education for patients and healthcare professionals, incorporation of new technologies and development of new therapeutics through translational research.

Samer Fakhri, M.D., and his partners, Amber Luong, M.D., Ph.D., and Martin J. Citardi, M.D., form the core of TSI, which offers expertise in the medical and surgical management of sinus and nasal disorders with special focus on fungal and refractory chronic rhinosinusitis. “The population of the southern parts of the country, especially eastern Texas and the Mississippi Basin, is particularly affected by a distinct and aggressive form of chronic rhinosinusitis referred to as allergic fungal rhinosinusitis (AFRS),” says Dr. Fakhri. “At TSI we see a much higher proportion of AFRS due to the nature of our referral patterns.”

AFRS is an aggressive inflammatory process that affects the sinonasal cavity and has the potential to erode into adjacent structures, including the orbit and skull base. The management of AFRS involves surgical intervention followed by medical therapy.

“The objectives of treatment for AFRS mandate comprehensive



Allergic fungal rhinosinusitis can dramatically expand the paranasal sinuses, leading to significant orbital erosion, as seen here.

surgery, even in critical areas devoid of bone along the skull base and orbit,” Dr. Fakhri says. “Our surgical approach is highly precise, minimally invasive and exceedingly technical so that operative risks are minimized without compromising the surgical goals.”

TSI rhinologists also treat a large number of patients who have not responded well to medical therapies or who have previously undergone surgery. “Patients with persistent symptoms after sinus surgery present a difficult treatment challenge,” Dr. Fakhri says. “If a patient has refractory chronic rhinosinusitis or sinonasal polyposis after initial surgery and appropriate medical therapy, revision surgery may be necessary. The revision procedure, however, entails a higher surgical risk due to the distortion in anatomy

from previous sinus surgery and inflammatory disease.” A large proportion of the surgical volume at TSI consists of advanced and revision endoscopic sinus surgeries.

TSI rhinologists also incorporate comprehensive medical management into the treatment regimen. This approach optimizes the long-term outcomes from complex surgical interventions. Patients have the option of viewing their own endoscopic examinations on bright flat-panel monitors. “Although not all patients wish to see their own examinations, most patients welcome the opportunity to learn about

their nasal and sinus health and to participate more directly in the decision-making process,” says Dr. Fakhri.

TSI rhinologists are proficient in advanced sinus surgery, revision endoscopic sinus surgery, frontal sinus surgery, endoscopic orbital decompression, endoscopic optic nerve decompression and endoscopic dacryocystorhinostomy.

“We’ve expanded our practice dramatically over the last year as other physicians have become more aware of the services we offer,” Dr. Fakhri adds. “We’re here to support the otolaryngology community as well as other physicians by providing them with high-end clinical expertise in the diagnosis and treatment of very complex conditions.”

For more information about the Texas Sinus Institute, visit www.texassinus.org.