urmc.rochester.edu/ear-nose-throat/

There's More to Tell

News briefs and events from URMC's Otolaryngology Department:

- On January 22, 2012, the Department opened a new office location in the Highland Medical Office Building at 990 South Avenue, Suite 207, Rochester, NY 14620. This office helps to increase access to our general otolaryngology service and provides comprehensive care close to Highland Hospital. Sveta Karelsky, MD staffs this location four days a week and provides consultative services for inpatients at Highland Hospital. Audiology services will be available at this location, as well. To make an appointment for our Highland Hospital location, please call **585.758.5700**.
- On April 1, 2012, the Department opened an urgent care center at the Clinton Woods location. This center is staffed daily by Physician Assistant Tarek Siala, who works with one of the Department's clinical faculty members. The urgent care clinic, modeled after a similar URMC Orthopaedics initiative, utilizes an open scheduling model. "We frequently were too busy to accommodate same-day appointments, which frustrated both referring physicians and patients. The urgent care model allows patients or referring physicians to call our office for a same-day appointment," states Dr. Shawn Newlands. "Moreover, this model is designed to increase our patient access, as well as avoid unnecessary emergency room visits and trips to urgent care facilities where subspecialty expertise is not available."
- Benjamin Crane, MD, PhD has been appointed Assistant Editor for the journal *Otology & Neurotology*. Dr. Crane was also awarded a two-year grant from the Triological Society (Triological Career Scientist Award) for the proposal titled, "Visual and vestibular percepts of motion." This grant is a supplement to his K23 award from National Institute of Deafness and Other Communication Disorders (NIDCD) to study vestibular perception. Dr. Crane was one of only two recipients of this prestigious award.
- Shawn Newlands, MD, PhD has been appointed Associate Editor for the *Journal of the Association for Research in Otolaryngology* (JARO).

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MEDICINE *of* THE HIGHEST ORDER

Meet Our New Providers:

Judy Cavanaugh, NP

Judy graduated from Nazareth College with a BSN and earned an MS degree in adult primary care from the University of Rochester School of Nursing. She has worked at Strong Memorial Hospital for nearly 25 years, first as a Surgical ICU nurse and later as a Nurse Practitioner in General Surgery, Clinical Research, Orthopaedics, Neurosurgery and back in the Surgical ICU. In addition to being licensed as a Nurse Practitioner, Judy is certified in Critical Care Nursing and as a Registered Nurse First Assistant. She now works in the Head and Neck Oncology Clinic at the Wilmot Cancer Center and with our inpatients at Strong Memorial Hospital.

Tarek Siala, PA

Tarek graduated from Oregon State University with a BS degree. He completed the Physician Assistant Program at Western Michigan University. Tarek brings two years of experience as a Physician's Assistant from Ear, Nose and Throat Consultants in Woburn, MA. He works in the Clinton Woods office with the primary responsibility of seeing patients in the otolaryngology urgent care center.

Keri Comerford, NP

Keri is a graduate of the St. John Fisher College School of Nursing, where she earned both her BS and MS in Family Nurse Practitioner degrees. She has worked as a nurse at Highland and Strong Memorial Hospitals for the past 10 years in roles associated with Obstetrics and Gynecology. Keri now works at our Clinton Woods location, facilitating care for a variety of patients.

ENTell
DEPARTMENT OF OTOLARYNGOLOGY

UNIVERSITY of ROCHESTER MEDICAL CENTER

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MEDICINE *of* THE HIGHEST ORDER

Chairman's Corner

Shawn Newlands, M.D., Ph.D.

Welcome to the third edition of ENTell, the newsletter of the Department of Otolaryngology—Head and Neck Surgery at the University of Rochester Medical Center. In this issue, we continue to highlight clinical programs in the Department with an article on the excellent job Dr. Timothy Doerr is doing in facial plastic and reconstructive surgery. Our research feature inside is on my own lab, working on understanding vestibular signals in the vestibular brainstem. Also in this newsletter, we visit with Dr. John Norante, the senior member of our faculty whose insight and experience has been an asset for many years. Hopefully, those of you who know John will enjoy catching up with him. I trust you will enjoy this issue of ENTell, as always, your feedback is welcome.

Facial Plastic Surgery

"You don't really appreciate the complexity of the operation until you have done at least a thousand." These words of both encouragement and caution were told to Timothy Doerr, MD while he was a fellow in facial plastic surgery. "It was during a rhinoplasty dissection course and some of the surgeons who had signed up did not attend. So I was getting one-on-one surgical instruction from one of Europe's foremost nasal surgeons," Dr. Doerr explains.

One thousand noses may have seemed far into the future, but Dr. Doerr recently surpassed that milestone. Rhinoplasty, especially revision nasal surgery, has become one of the main areas of his practice. "The exciting thing about nasal surgery is that each case is unique and surgeons need to tailor the operation to both the aesthetic and functional goals," states Dr. Doerr. "We have learned in rhinoplasty that preserving the structural integrity is critical for good long-term results. With nasal surgery, I am trying to provide an aesthetically pleasing nose and avoid the 'operated' look, which is often the result of an overly aggressive surgery." Equally important to the nasal appearance is achieving correct functionality of the nose. "You don't want to do anything that may look good today, but may cause breathing problems in the future," he adds.

Dr. Doerr is an Associate Professor in the URMC Department of Otolaryngology and Director of the department's Facial Plastic Surgery Division. He completed medical school and an otolaryngology head and neck surgery residency at Wayne State University in Detroit, Michigan. Dr. Doerr later completed a fellowship in head and neck surgery, focusing on reconstruction. He was then selected for additional training in facial cosmetic and reconstructive surgery at the University of Michigan. Dr. Doerr studied under Drs. Lawrence Marentette and Shan Baker, renowned facial plastic surgery specialists.

"I was very fortunate in my training to work with some of the experts in our field. Dr. Robert Mathog, my residency program director and chairman, is a leader in facial trauma. Then to complete a fellowship working with Drs. Marentette and Baker, that was excellent training," says Dr. Doerr. Now as residency program director, he hopes to be able to have a similar impact on residents here at the University of Rochester, stating, "As otolaryngologists, I believe we are uniquely qualified to perform facial plastic surgery. Our training provides a great appreciation of both form and function."

For Dr. Doerr, the subspecialty of facial plastic and reconstructive surgery is a perfect match. "What I enjoy most about my practice is the variety of cases," he comments. In addition to a busy rhinoplasty practice, Dr. Doerr performs a great number of complex reconstructions for skin cancer and facial trauma, commenting, "Every day, there is another interesting challenge."

Not every patient in Dr. Doerr's practice is in need of reconstructive surgery. Many are seen for facial cosmetic concerns—and the practice offers the

—continued next page

Timothy Doerr, MD and Indira Celik, Licensed Aesthetician

Facial Plastic Surgery—continued

full range of facial cosmetic services. With the assistance of Indira Celik, his Licensed Aesthetician and Patient Care Coordinator, Dr. Doerr can provide minimally invasive procedures like Botox and Restylane for facial lines and wrinkles. Patients can also take advantage of in-office facial peels and procedures that improve their appearance with almost no downtime. In addition, Dr. Doerr regularly performs facelifts, brow lifts and blepharoplasty for patients who require more rejuvenation. According to Dr. Doerr, many patients have heard about "the latest and greatest" procedure on TV or the Internet and want to know if it will work for them. "It is critical we provide these patients with advice and set realistic expectations on what can be accomplished by these procedures."

To reach Dr. Doerr or to refer a patient, please call 585.758.5734.

The Newlands Lab

As children, we learn about the five senses (touch, taste, vision, hearing and smell); all of which are involved in the daily practice of otolaryngology. However, the oldest sense, phylogenetically, is the sense of balance or spatial orientation. While ignored in grade school, balance is a critical sense for well being. Despite the large number of patients who present with balance disorders – as well as the absolute critical role balance plays in our daily activities – far less is known about the physiology of this sensory system than any of the other senses. Shawn D. Newlands, MD, PhD is currently conducting studies aimed at understanding normal physiology in the vestibular system and how that physiology is altered with loss of a labyrinth.

"Vestibular research has lagged behind many other areas of sensory physiology research, potentially because of the difficulty in delivering the stimulus to the experimental subject," states Dr. Newlands. Unlike visual stimuli that can be delivered by a projector or auditory stimuli delivered by speakers, which can be presented to a subject in almost limitless patterns, delivery of vestibular stimuli requires moving the organism through space, which is constrained by the laws of physics. Vestibular physiology research, therefore, requires well-controlled motorized motion control equipment, and at times, is as much engineering as science.

"In our experiments, we move the (non-human) subject through space while recording the activity of brainstem neurons," Dr. Newlands reports. "The more significant the motion, the more difficult it is to collect the data." In the Newlands Lab, subjects are rotated through space, which stimulates the semicircular canals, or translated on a linear sled, which stimulates the utricular system. Neural signals in the vestibular system originate in the vestibular labyrinth – including the semicircular canals, utricle and saccule – and travel via the vestibular nerve to the vestibular nuclei.

"We are investigating the coding, in the vestibular nuclei, of vestibular inputs from the vestibular nerve," Dr. Newlands states. His team is studying three particular elements of vestibular processing. The first is how responses in the vestibular nuclei change with lesions of the vestibular labyrinth. "We know that vestibular compensation, which is the improvement of symptoms after damage to the vestibular labyrinth or nerve as with labyrinthitis or acoustic neuroma, occurs in the central nervous system, but the mechanisms are not well understood. Our research into these mechanisms may facilitate future therapeutic approaches to help poorly compensated patients improve after vestibular damage from trauma or disease," says Dr. Newlands.

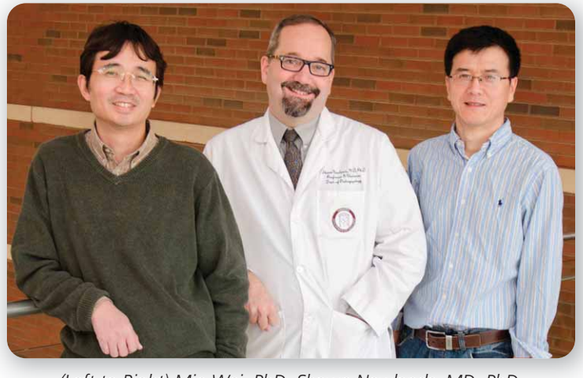
A second area of interest is how extremes in motion are handled in the vestibular system. "We need to be able to perceive very subtle movements and also respond appropriately to very forceful movements," he adds. How the vestibular system is able to remain sensitive over a wide range of motions is just now being explored, though the mechanisms have been investigated in other sensory systems for years.

Thirdly, most studies in vestibular science involve one type of motion (rotation or linear motion). In the Newlands Lab, the responses of central vestibular neurons to combined translation and rotational stimuli are being investigated. "Virtually every movement we make stimulates combinations of the semicircular canals, the utricle and the saccule, but how these signals interact is practically unstudied," Dr. Newlands explains.

Recent data from the lab, presented at the Association for Research in Otolaryngology, demonstrate that vestibular nuclear neurons that respond to both translation and rotation do not simply add the two signals together, but instead there is a multiplicative interaction.

"There is a lot of processing of information in the vestibular brainstem that impacts our balance that we are just now starting to appreciate," says Dr. Newlands.

The National Institute for Deafness and Communication Disorders has funded Dr. Newlands' research for 12 years. More information on his research can be found on his laboratory website: **urmc.rochester.edu/labs/Newlands-Lab**



(Left to Right) Min Wei, PhD, Shawn Newlands, MD, PhD, and Hongge Luan, PhD

Catching Up With Dr. John Norante

John Norante, MD is a fixture in otolaryngology in Rochester. A native of New Jersey, he first came to our area as a resident under Dr. John Frazier from 1966 to 1969. Prior to arriving in Rochester, Dr. Norante, a Princeton graduate, completed medical school at Hahnemann Medical College. He also served in the Medical Corps of the U.S. Army as medical support to Army Special Forces stationed in Okinawa Japan for two years. This engagement included service in Vietnam during the Vietnam War. His surgical internship was completed at Mountainside Hospital from 1965 to 1966.

Initially interested in otology, Dr. Norante met with Dr. Brian McCabe, who convinced him to pursue a head and neck fellowship, at the University of Iowa. He remained at the University for two years of fellowship training after finishing his residency at the University of Rochester, and then spent a third year on the Iowa faculty. In 1972, Dr. Norante returned to Rochester to work with Dr. Frazier as the second full-time faculty member in the Division of Otolaryngology at the University of Rochester.

"When I went through my residency, there was no match and we had one resident per year," states Dr. Norante. "Once I returned, however, the Division began to grow with the addition of Dr. Paul Dutcher and the recruitment of Dr. Art Hengerer to lead the group after Dr. Frazier retired."

Dr. Norante's calm professionalism and insightfulness have not been lost on those who have worked with him for years. "He has been a reliable bedrock for this Department for four decades," Dr. Hengerer notes. Dr. Tim Doerr, who has worked with Dr. Norante for the last 12 years, comments on his wisdom in clinical situations, saying, "John is usually the one who really states the problem in a way that makes the right course of action clear."

Over the past 40 years, the Division has grown into an independent Department. Dr. Norante has worked with numerous faculty colleagues and helped train roughly 80 residents and countless medical students. "A lot has changed at U of R in my career, but my enjoyment of what I do, clinical medicine and the personal interactions it has afforded me has not changed," he says. Dr. Norante has no plans to retire, adding, "What else am I going to do; taking care of patients is what I enjoy."

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