Chairman’s Address

We are pleased to present the Spring 2009 edition of Heads Up!, the UCSF Otolaryngology – Head and Neck Surgery Newsletter. This edition highlights several important developments including the introduction of a new faculty member, a review of innovative melanoma treatments, the appointment of Dr. Michael M. Merzenich to the Institute of Medicine, exciting CME course offerings, and more.

Please join me in welcoming Dr. Anna K. Meyer, a Pediatric Otolaryngologist - Head and Neck Surgeon, who joined our department in October 2008. She treats pediatric patients with a full range otolaryngologic disorders ranging from airway and chronic ear disease to congenital head and neck masses and craniofacial syndromes.

Dr. Steven J. Wang provides us with a review of important head and neck melanoma treatment options including a number of specialized services such as sentinel lymph node mapping. Using a collaborative approach with UCSF dermatologists and medical oncologists, Dr. Wang provides comprehensive surgical management for this disease at our Head and Neck Surgical practice at the UCSF Comprehensive Cancer Center.

We congratulate Dr. Michael M. Merzenich for his appointment to the Institute of Medicine of the National Academies and describe the research innovations in neural plasticity that have been the hallmark of his important scientific accomplishments.

In addition, our Research Vice Chairman, Dr. Christoph E. Schreiner, provides us with a basic science research update with a focus on the cortical plasticity work of Dr. Steven W. Cheung.

Furthermore, we highlight prior departmental CME courses. We hope you can join us for upcoming courses including the Pacific Rim Otolaryngology-Head and Neck Surgery Update and Laryngeal Endoscopy Course both in February 2009.

Sincerely,

David W. Eisele, MD  
Professor and Chairman

Research Update:

Steven W. Cheung, MD

A core feature of the department’s research mission is combining basic with clinical research to validate pathophysiological mechanisms of disease and guiding the development of innovative treatment strategies. An example of such a combined approach is illustrated in the work of Steven W. Cheung, MD, Associate Professor in the Department of Otolaryngology – Head and Neck Surgery, who provides clinical care in the areas of otology, neurotology, skull base surgery, and implantable hearing devices.

Dr. Cheung’s research addresses issues related to learning and reorganization of the neocortex in auditory, somatosensory, and motor systems. Recently, Dr. Cheung completed a study focused on alterations in auditory cortex function in mild asymmetric hearing loss. Cortical plasticity refers to the brain’s ability to reorganize its functional capabilities by reconfiguring information processing machinery and customizing accessible and incipient programs to learn new skills. This dynamic process enables animals and humans to meet unfamiliar environmental challenges by responding with requisite skills and successful strategies.

Cortical plasticity also allows the central nervous system to compensate for functional deficits as a result of peripheral organ injury, such as hearing loss in acoustic trauma and voicing dysfunction in laryngectomy patients. However, not all forms of plasticity create desirable sensory and motor compensatory outcomes. Some examples are phantom perception of limb pain following amputation and tinnitus arising from various forms of hearing loss, and focal dystonia, a degradation of fine motor and coordinated movements, in repetitive strain injury.

Dr. Cheung studies the role of cortical plasticity in the creation of...
Introducing

Anna K. Meyer, MD, FAAP
Pediatric Otolaryngologist - Head and Neck Surgeon

Please join us in welcoming the newest member of our faculty in the Division of Pediatric Otolaryngology.

Dr. Anna K. Meyer, a specialist in pediatric otolaryngology - head and neck surgery, was recruited to the UCSF Department of Otolaryngology - Head and Neck Surgery in October 2008 as an Assistant Professor of Clinical Otolaryngology. Dr. Meyer is no stranger to San Francisco; she grew up in the Bay Area and completed her medical school degree here at UCSF.

Dr. Meyer trained in Otolaryngology - Head & Neck Surgery at the University of Michigan. She pursued her interests in pediatric otolaryngology with fellowship training at Children’s Memorial Hospital in Chicago. During this busy year, Dr. Meyer had the opportunity to complete a large number of complex pediatric airway, otologic, and head and neck cases. One of her fellowship mentors, Dr. Lauren Holinger, is a world-renowned pediatric airway surgeon, and another, Dr. Nancy Young is an expert in pediatric cochlear implantation. During her fellowship, Dr. Meyer performed research in the genetics of pediatric hearing loss and presented her work at the American Society of Pediatric Otolaryngology. In addition she published a book chapter on the hearing complications of chemotherapy.

Along with her clinical activities, Dr. Meyer is pursuing several clinical research projects at UCSF. Dr. Meyer’s key research interests focus on health disparities, as well as cochlear implantation and hearing loss, and medical education.

At UCSF, Dr. Meyer sees patients and operates at the Parnassus campus. She treats pediatric patients with a full range of otolaryngologic disorders including airway disease, chronic ear disease and hearing loss, choanal atresia, velopharyngeal insufficiency, acquired and congenital head and neck masses and craniofacial syndromes, among others.

Dr. Meyer will soon see patients at UCSF’s East Bay satellite facility at Valley Care Medical Center in Pleasanton, CA. The expected timeframe for the start of this outreach clinic is Spring-Summer 2009.

For more information about Dr. Meyer, or to contact her, please visit our website at http://ohns.ucsf.edu/ and click on the “Courses By Department”.

To schedule an outpatient appointment at our Parnassus clinic, please call: (415) 353-2757.
Professor Emeritus
Michael M. Merzenich, PhD
Honored by Prestigious Award

On November 25, 2008, the Department of Otolaryngology – Head and Neck Surgery held a reception at UCSF to honor Professor Emeritus Michael M. Merzenich, PhD, an elected member of the Academy of Sciences, who was recently named a member to the Institute of Medicine (IOM).

IOM membership was conferred upon only 65 Americans in 2008 and is considered one of the highest honors in the fields of health and medicine. Dr. Merzenich was nominated anonymously by a current member of the IOM for his lifetime achievement in the field of neural plasticity, the brain’s ability to change its response properties and connections throughout life.

Established in 1970 by the National Academy of Sciences, IOM is a leading resource for independent, scientifically informed analysis and recommendations on human health issues. Its members provide the highest caliber of scientific advice to government policy makers on health initiatives nationally and globally.

As a part of his IOM membership, Dr. Merzenich will be traveling to Washington, D.C. in April 2009 to sign the Register of Notes of the National Academy of Sciences, a 100 year old organization established originally in the time of Abraham Lincoln. When asked about his reaction to this award, Dr. Merzenich expressed surprise and commented humbly that it must be because he was the most senior of his colleagues (in years). Dr. Merzenich has often stated that his research efforts were ultimately the collaborative achievements of many domestic and international scientists who have worked along side him or have been mentored by him both in the department’s Coleman Memorial Laboratory and abroad.

From left: David W. Eisele MD, Michael M. Merzenich, PhD, Christoph E. Schreiner, PhD, MD

Being selected for IOM membership is an affirmation that Dr. Merzenich’s life work is appropriately regarded as important medical and historical knowledge, in addition to being viewed as significant in the domain of basic science discoveries.

After his early pioneering work on the development of the cochlear implant at UCSF, Dr. Merzenich later branched off into inventive and ground-breaking treatments for improving the lives of the aged and those suffering from autism, dyslexia and schizophrenias through novel and innovative intensive listening therapies and visual therapies. Dr. Merzenich has become a national leader on cognitive ways to re-train the brain to improve its operations in the face of illness. His Brain Fitness and Brain Fitness 2: Sight and Sound informational programs have been broadcast PBS television over the past two years with enthusiastic public response. We congratulate Dr. Merzenich for this distinguished honor and wish him continued success on his research contributions.

Steven J. Wang, MD’s Multidisciplinary Treatment Approaches to Head and Neck Melanoma at UCSF

Steven J. Wang, MD joined the faculty of the UCSF Department of Otolaryngology – Head and Neck Surgery in 2003. Dr. Wang is a head and neck surgeon specializing in the treatment of benign and malignant disorders of the head and neck. He provides surgical care of tumors of the oral cavity, larynx, thyroid and salivary glands, as well as cutaneous malignancies including melanoma and non-melanoma skin cancers. Additionally, Dr. Wang has expertise performing head and neck microvascular reconstructive surgery.

While melanoma is the third most common type of skin cancer, it is the number one cause of skin cancer death. One American dies from melanoma almost every hour (every 62 minutes). The number of new cases of melanoma in the United States has increased 600% in the past 50 years. Melanoma can occur at any age, including children and young adults. Twenty-five to thirty percent of all melanomas occur in the head and neck. As with all cancers, early detection can improve ones chances for a favorable outcome.

The appropriate management of melanoma involves a multidisciplinary team approach. Dr. Wang works closely with dermatologists, radiation oncologists, and medical oncologists from the UCSF Melanoma Tumor Board to provide surgical care for melanomas of the head and neck.

Melanomas involving the skin of the head and neck may arise in and around the face, scalp, and neck, and present unique challenges for surgical excision and reconstruction. Dr. Wang’s approach seeks to achieve appropriate margins around the melanoma while preserving function and cosmesis.

One of the specialized services for the treatment of head and neck melanomas provided by Dr. Wang is sentinel lymph node mapping and biopsy. This minimally invasive technique helps to identify metastatic melanoma in lymph nodes that are undetectable by clinical exam or radiologic imaging. With this technique, patients undergo a pre-operative injection of a radioactive tracer in their primary melanoma in order to identify the site of the sentinel nodes. The sentinel nodes are further pinpointed intraoperatively through use of a hand-held probe.

For more information about Dr. Wang, or to contact him, please visit our website at: http://ohns.ucsf.edu/

To schedule an appointment at our Head and Neck Cancer Center Clinic, please call: (415) 885-7528

Minimally Invasive Sentinel Lymph Node Biopsy. Arrow Indicates Blue Dye-Stained Lymph Node

Node Seeker and Gamma Probe for Sentinel Lymph Node Identification

Early detection of lymphatic micrometastases allows identification of patients who require node dissection surgery as well as other systemic therapies. Multicenter clinical trials have demonstrated that the use of sentinel lymph node biopsy can improve survival for intermediate-thickness melanoma.
plasticity mechanisms that were responsible for realignment of frequency maps. Cortical representation of the better hearing ear became deteriorated. In essence, binaural hearing was sufficiently important that auditory cortex sacrificed hearing sensitivity in the better hearing ear to foster frequency map alignment between the two ears.

In collaboration with Dr. Srikantan Nagarajan, a Professor in the Department of Radiology at UCSF, Dr. Cheung extended his study to the clinical arena. Human subjects with mild asymmetric hearing loss were studied with advanced imaging techniques and similar misalignments of cortical maps were discovered. Clinical research confirmation of basic research findings has motivated the development of new hearing rehabilitation strategies. These new strategies will account for functional central hearing loss in the better hearing ear and improve the treatment of asymmetric hearing loss.

This vignette illustrates how basic science can inform clinicians about the mechanisms underlying disease processes and how interdisciplinary collaborations are critical in forging a research environment that breaks new ground for the direct benefit of patients.

UCSF Otolaryngology-Head and Neck Surgery is committed to translational research. The department is well positioned to develop fundamental new insights into the neurological bases of communication disorders and to create pioneering treatment protocols and products for patients. With further help from our friends, alumni, and philanthropic donors, we are confident that we will continue to succeed in these endeavors.

Dr. Karsten Munck Tribute

We would like to say goodbye and remember with fondness Karsten Munck, MD. Karsten was a charming and highly regarded former resident in our department, who died suddenly on October 20, 2008 at age 38. Karsten completed his residency in Otolaryngology - Head and Neck Surgery at UCSF in 2005.

GIVING BACK: Resident Support is Key

As you may know, one of the hallmarks of our department is the training we offer to the next generation of otolaryngologist - head and neck surgeons. Each year, our department “matches” three resident applicants (out of several hundred) for a five-year residency. Our residents go through a comprehensive training program, which covers the breadth of Otolaryngology - Head and Neck Surgery in a wide array of clinical settings as well as investigative work in the basic sciences.

Our residents have an extremely broad and balanced surgical experience encompassing the entire range of Otolaryngology-Head and Neck Surgery. For the past 15 years, 100% of our graduating residents have become board-certified during their first post-residency year.

Even though we have what is considered to be one of the finest otolaryngology - head and neck surgery resident training in the country, it is often a great financial burden for residents to choose to come here due to the high cost of living in the San Francisco Bay Area. And while we wrote about how private support helps attract and retain top-tier faculty in our last newsletter, the same applies to our ability to attract the best and brightest residents. The following are just a few examples of how private support like yours helps enhance our residency program:

• Travel to national meetings to present resident research papers;
• Manuscript submission fees;
• Visiting professor lectures to discuss his/her clinical and/or research experience with residents;
• Learning activity in the Robert A. Schindler, MD Surgical Skills Classroom;
• Resident book fund; and
• Resident Research Day for all residents to present their annual research projects.

To help us provide consistent and generous support for our residents, we are establishing a Residents’ Endowment Fund. This Fund, with a goal of $500,000, will help offset the many costs, including in addition to those above, our residents incur annually.

All gifts, regardless of size, are important for the benefit of our residency program and other areas of the department that are enhanced by private philanthropy. The tremendous advances happening in OHNS rely upon our partnerships with individuals like you. And while we realize that the current economic climate has placed a financial strain on all of us, we assure you that we will be faithful stewards of all of your gifts.

For more information about how you can make a gift to the OHNS Residents’ Endowment Fund or have an impact on another area in the Department of Otolaryngology – Head and Neck Surgery, please contact Jeff Hauk, Director of Development, at 415-502-6198 or jhauk@support.ucsf.edu.