



Dr. Daniel Knott discusses reconstructive options with a patient

## Plastic & Reconstructive Surgery

# Giving Back Smiles

**W**hy don't we appreciate things until we've lost them? While this is true when it applies to material goods, it is even more important when it applies to one's own body. Smiling is something that we most literally take for granted. There are thousands of expressions that a face can convey with inflections provided by a subtle lift of the eyebrow, a flared nostril, or a tightening of the jaw. Quite suddenly however, all of these expressions, as well as the ability to close the eye, speak, swallow or even breath through the nose may be swept away.

The facial nerve is a single cord-like structure that exits the brain stem after passing next to the inner ear and enters the face in the soft tissue deep to the earlobe. It then divides and powers all of the muscles of facial movement. When the facial nerve is damaged, through infection, stroke, trauma, cancer or surgery, one is essentially left without half of a face. This critical window to the world becomes wooden and droopy. While some patients recover function on their own, many are faced with life-long paralysis. Social interaction is shunned, jobs are lost and relationships may be terminally stressed.

Traditional operations to repair facial movement required multiple stages, waiting periods of up to a year for nerve grafts to "take," and deforming contour abnormalities. However, with new techniques that he has helped develop, Dr. Daniel Knott, director of facial plastic and reconstructive surgery at UCSF, is able to restore meaningful and expressive movement with immediate results. Droopy eyebrows are lifted, platinum implants are placed below the skin of the upper eyelid, the lower eyelid is tightened and the smile may

be restored with a muscle transfer. Progress in this area has been astounding, but much work remains. There is no single "answer" for every patient, and nerve regenerative medicine is one area that needs increased research.

Lost smiles are not the only focus of Dr. Knott's clinical research. He has also worked extensively in head and neck transplantation, cartilage bioengineering and facial contour restoration. For example, imagine losing your jaw. This may be a strange concept, but this was the fate of an unfortunate 15-year-old cheerleader. Faced with a benign, but locally destructive dental tumor, this teenager underwent removal of her upper jawbone at UCSF 2 years ago. Surgery resulted in removal of half of her hard palate, all of the upper teeth on one side of her mouth, the shelf of bone that supports her eyeball and most of her cheekbone. While her operation was curative, this young lady now must wear a specially modified denture in order to speak or eat. This is quite a challenge for a high school student whose classmates worry more about acne, first dates and first kisses.

Dr. Knott is one of only a handful of surgeons in the country that is able to use part of a patient's lower leg bone to rebuild the bone and soft tissue of the upper jaw, using minimally invasive incisions and soft tissue tunneling and undermining techniques. Once healed, this bone supports dental implants, and can return patients to complete normalcy. Dental implants are however very expensive and are rarely covered by insurance. This young woman and her family are currently trying to save up money to pay for the dental implants to help fund her upcoming surgery. ■

## Building on History

# Honoring Michael M. Merzenich, PhD

**O**n March 1, 2012, the Department of Otolaryngology – Head and Neck Surgery presented a special lecture and dinner in honor of Michael M. Merzenich, PhD. The lecture, presented by Dr. Merzenich, himself, was titled, "Cultural Neuroscience: How brains change humans and societies and societies change brains and humans."

After the lecture, invited guests from four different continents attended a dinner to honor Dr. Merzenich's achievements which have affected lives around the world. A list of over 20 speakers – many of whom are now leaders in technology and health sciences themselves – told about their experiences studying under the tutelage of Dr. Merzenich, being his colleague, and being his family.

Dr. Merzenich's efforts at UCSF have led to great advances in patient care and discoveries that will benefit us all. One of the greatest innovations in medicine is due to the work that Dr. Merzenich developed alongside a former chairman of Otolaryngology – Head and Neck Surgery, Dr. Robert Schindler: the multi-channel cochlear implant.

### Endowed Lecture

If you would like to partner with us in honoring Dr. Merzenich's achievements through establishing the *Michael M. Merzenich Endowed Lecture*, please contact Justin Marsh at [jmarsh@support.ucsf.edu](mailto:jmarsh@support.ucsf.edu) or by calling 415/476-5885. ■

Dr. Michael M. Merzenich





### Laryngeal Endostroboscopy: Performance and Interpretation

September 20–21, 2012  
San Francisco, California

### American College of Surgeons Thyroid and Parathyroid Ultrasound Skills-Oriented Course

November 8, 2012  
San Francisco, California

### Head and Neck Endocrine Surgery – with or without Head and Neck Cancer

November 9–10, 2012  
San Francisco, California

### Head and Neck Cancer Surgery (Only)

November 10–11, 2012  
San Francisco, California

### Temporal Bone Surgical Dissection Course

December 7–8, 2012  
San Francisco, California

### Pacific Rim Otolaryngology Head and Neck Surgery Update Conference

February 16–19, 2013  
Honolulu, Hawaii

### UCSF Otolaryngology Update: 2013

November 7–9, 2013  
San Francisco, California

### 20th Annual Advances in Diagnosis and Treatment of Sleep Apnea and Snoring

February 14–15, 2014  
San Francisco, California

For more information about these and other continuing education offerings, please visit <http://ohns.ucsf.edu> and <http://cme.ucsf.edu>.

# Program Excels with Talent and Support

**Our education program is extremely strong and if this year's NRMP resident match is any indication then it is obvious that the word has spread throughout the nation. Our program combines a unique esprit de corps with unparalleled clinical and research experience to create an exciting and nurturing learning environment.**

### Welcome New Residents

This year, we competed against the most outstanding and competitive Otolaryngology–Head and Neck Surgery training programs in the county and matched three spectacular young physicians. Nicholas Dewyer, MD, is joining us from the University of Michigan and his wife will be matriculating in the Radiation Oncology program at UCSF. Jonathan Overdeest, PhD, MD, will be arriving from the University of Virginia, and Matthew Templan, MD, will return home from UCLA to comprise our incoming PGY-1 class.

Meanwhile, please welcome Dan Faden, MD, Shethal Bearely, MD, Jeffrey Markey, MD, and Megha Parekh, MD, to their PGY-2 year. They are a spectacular class and the first of our classes with four residents per year in keeping with our ACGME approved complement increase.

We will certainly miss our beloved chief residents, but no one is traveling too far. Kevin Huoh, MD, will be a pediatric fellow at Stanford, Gerald Kangelaris, MD, will be

practicing in San Francisco, and Jolie Chang, MD, will be a full-time faculty member in the department. We are very confident in the skills and physicianship displayed by this outstanding crew.

### Program Support

We have been very fortunate this year in receiving generous support for our education program including travel grants from the American Academy of Otolaryngology Head and Neck Surgery, from the Triological Society, and from many individuals. We owe a special debt of gratitude to Dr. Robert and Janet Schindler and Dr. David and Diana Schindler who have contributed generously to support our Robert A. Schindler Surgical Skills Classroom. We run numerous courses throughout the year for the residents in this facility and have also recently run post graduate courses with cadaver dissections to focus on skull base surgery.

### Expanding Understanding

Finally, Anna Meyer, MD has been successful in integrating several otolaryngology-head and neck surgery lectures into the basic science curriculum for all UCSF medical students. Her lectures were extremely successful based upon the formal feedback we have received. We know that Anna's efforts will increase the general awareness of otolaryngology issues within the medical school and will lead to even more responsibility within the undergraduate medical education curriculum at UCSF. ■



# HeadsUp!

News from the UCSF Department of Otolaryngology – Head and Neck Surgery

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

SUMMER 2012 | VOL. 9, ISSUE 1

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Facial Plastic and Aesthetic Surgery Practice  
 UCSF Medical Center  
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HNS–Facial Plastic and Post-Oncologic  
 Reconstructive Surgery, UCSF Helen Diller  
 Family Comprehensive Cancer Center  
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Head and Neck Surgery and Oncology  
 Head and Neck Endocrine Surgery  
 Salivary Gland Center  
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Balance and Falls Center **415/353-2101**

Voice and Swallowing Center **415/885-7700**

Audiology **415/353-2101**

To support the Department of  
 Otolaryngology – Head and Neck Surgery,  
 please contact Development Director  
 Justin Marsh at 415/476-5885  
 or JMarsh@support.ucsf.edu.



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## Message from the Chairman

It is a great honor for me to assume the position of Interim Chair of the Department of Otolaryngology-Head and Neck Surgery at the University of California, San Francisco. However, it is humbling to follow in the footsteps of my friend and mentor, David W. Eisele. We have seen so much positive change in our department throughout Dave’s tenure, such as: doubling the size of the clinical faculty with outstanding physician recruitments; increasing the scope of our research with new basic scientists; and expanding the size of our residency program. Our department now covers every clinical aspect of Otolaryngology-Head and Neck Surgery including: robotic surgery; endoscopic skull base surgery; microvascular free flap reconstruction; endocrine surgery of the head and neck; sleep apnea surgery; ultrasound diagnostic capability; and, of course, cochlear implantation. We are extremely well positioned to provide high quality service to our community and to our university.

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## Couple Supporting the Future of Otolaryngology – Head and Neck Surgery

Nina and Barney Cohen each came from very different backgrounds. Barney grew up in an orthodox Jewish household in a steel town in Indiana, while Nina was raised by non-religious parents in Massachusetts. Yet, throughout their 69 years together they have always shared the same values. Married in 1943, they moved to California from the East Coast at the end of World War II. “We didn’t want to upset either of our families by living closer to one or the other of them,” says Nina. “So we decided to move across country.”

In her teen years, Nina noticed she was having a problem with her hearing. She was diagnosed with Otosclerosis, which causes an abnormal bone growth in the middle ear. Just before she and Barney left for California, Nina had ear surgery at Massachusetts General Hospital, where surgeons were experimenting with a new kind of procedure for patients with her condition. The surgery did improve Nina’s hearing though she suffered an infection for more than a year afterward.

*Continued on page 2*



Barney and Nina Cohen have generously included the Department of Otolaryngology–Head and Neck Surgery in their estate plans.

**“We are so grateful for the Cohens’ generosity. Support like theirs will help the Department to maintain its position as one of the best in the country for clinical care, research and educational programs.” – Dr. Andrew H. Murr**

## Chair's Message

Continued from page 1

In my role as Interim Chair, Dean Hawgood empowered me to continue to improve and develop our department. I will devote myself to fulfilling this directive through actions such as the following:

■ **Active recruitments, including:**

a head and neck endocrine surgeon to partner with Dr. Orloff; a vestibular otologist to partner with Dr. Lustig's group; a new Director of Audiology to fill in for Dr. Sweetow now that he is retired; and, continued increase of our resident complement.

■ **Making use of cutting edge technologies and facilities, such as:** participation in the first wave of development for our new cancer hospital and in the development of the UCSF Benioff Children's Hospital (which are being constructed on schedule and on budget); and, being part of the opening of the brand new San Francisco General Hospital – which is arising before our eyes on the former front lawn of the SFGH campus.

I am so proud of our outstanding residents who display an amazing esprit de corps. Our residents are extremely accomplished and professional, and I will commit myself to continuing to focus our resources on creating the best Otolaryngology-Head and Neck Surgery residency program in the country. This year, our phenomenal chief residents are pursuing diverse careers: Dr. Kangelaris will be joining the Schindler/Johnson/Yeung/Kim practice here in San Francisco, Dr. Huoh will be matriculating in the pediatric fellowship at Lucille Packard Hospital, and Dr. Chang will be joining our own academic practice here at UCSF.

From a clinical services standpoint: our Chief of Facial Plastic and Reconstructive Surgery Dr. Dan Knott is extremely busy with aesthetic and reconstructive surgery; Dr. Marika Russell has seamlessly integrated into the San Francisco General Hospital practice; Dr. Will Ryan is an extremely busy head and neck oncologic



Dr. Andrew H. Murr

surgeon; and, Dr. Matt Russell is blazing a trail as the Otolaryngology Hospitalist at the Parnassus site. As a gauge of the excellence of our clinical enterprise, our Head and Neck practice just received the highest patient generated score for recommending the practice to other patients in the entire University of California, San Francisco, a truly spectacular achievement!

From a research standpoint: we welcome Dr. Andrea Hasenstaub, a Klingenstein Fellowship neuroscience researcher, who joins the Keck Center and who will collaborate closely with Dr. Christoph Schreiner. Our rhinology team of Andrew Goldberg and Steven Pletcher has hired Emily Cope, PhD as a postdoctoral scholar to pursue an initiative devoted to understanding the human biome as it relates to sinus disease.

Finally, we have just completed a series of amazingly successful CME courses including the UCSF Voice Conference run by Dr. Courey, the UCSF Otolaryngology Update, the UCSF-Penn Sleep Medicine and Surgery Course with Drs. Goldberg and Kezirian, and multiple Ultrasound Courses organized by Dr. Orloff.

I am very excited about our team and our future. We will continue to innovate and collaborate. I will strive to expand the foundation of success that has enabled the continual advancement of our department.

Sincerely,

Andrew H. Murr, MD  
*Interim Chairman  
Professor of Clinical Otolaryngology-  
Head and Neck Surgery  
Roger Boles, MD Endowed Chair in  
Otolaryngology Education  
Department of Otolaryngology-Head and  
Neck Surgery*

## Donor Highlight

Continued from page 1

At age 30, Nina enrolled as a freshman at UC Berkeley to study nutritional biochemistry. She went on to get a Masters in Biostatistics from the UC Berkeley School of Public Health and later on a PhD.

Nina remembers some of the commercial hearing aids she wore while she was at Berkeley; one she had to attach to her glasses which meant she could only hear people behind her. Eventually she had one custom made, which made a big difference.

In the early 1970s, Barney retired from Bechtel Corporation where he worked for much of his career, and the couple headed out to Perth, Australia. Nina was hired by the Western Australian Institute of Technology (now Curtin University) to start two new courses: one in nutritional biochemistry and one in dietetics. In Perth, Nina had another surgical procedure on her middle ear, a stapedectomy, which helped improve her hearing even more. After four years, the couple decided to return home and did so the long way, spending nine months traveling through nine different countries.

### Support to UCSF

Because of Nina's challenges with Otosclerosis and her desire to support the work of the UCSF Department of Otolaryngology, she and Barney recently established a charitable gift annuity for which, in addition to receiving an income tax deduction, they will also be entitled to receive income for life.

The Cohens have also generously included the Department of Otolaryngology-Head and Neck Surgery in their estate plans. The use of their annuity and their bequest is unrestricted because, as Nina says, "I prefer to allow the Department to spend our gift in a way that makes sense at the time."

"We are so grateful for the Cohens' generosity," says Andrew H. Murr, MD, Associate Professor of Clinical Otolaryngology at UCSF. "Support like theirs will help the Department to maintain its position as one of the best in the country for clinical care, research and educational programs." ■

# da Vinci Surgical Robot for Head and Neck Cancers

Over the past decade, surgeons have utilized the da Vinci surgical robot (Intuitive, Sunnyvale, CA) for more precise, safer, minimally-invasive surgeries, particularly in the areas of urology, gynecology, and laparoscopic abdominal surgery.

Recently, a robotic-assisted surgical technique for the treatment of head and neck cancer was approved by the FDA. The technique, called Trans-Oral Robotic Surgery or TORS, involves the use of the da Vinci surgical robot to remove benign and malignant tumors of the throat. TORS is a minimally-invasive technique where a surgical robot, consisting of a three-dimensional high definition video camera and robotic arms with miniaturized instruments

**For those patients who will benefit from TORS, Dr. Wang and Dr. Ryan are pleased to be able to provide this exciting new treatment option.**

Dr. Stephen Wang (left) and Dr. William Ryan at the UCSF Helen Diller Family Comprehensive Cancer Center



under the full control of the surgeon, is used to completely remove tumors of the pharynx and larynx through the mouth without external incisions.

In January of 2011, a surgical team including Dr. Steven Wang, Dr. Ted Leem, and Dr. William Ryan performed the first TORS procedure at the UCSF Helen Diller Family Comprehensive Cancer Center. During the past year and a half, UCSF surgeons have safely performed TORS procedures on patients with tonsil, base of tongue, and palate tumors.

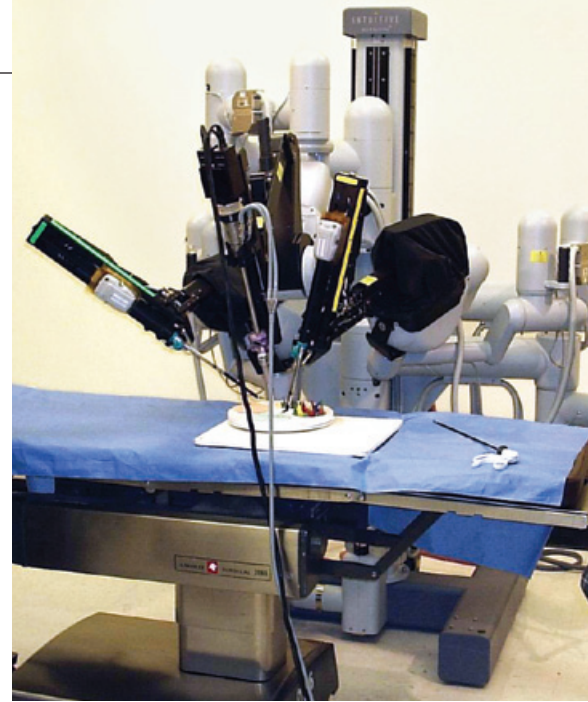
### Improved Visualization

According to Dr. Wang, the most common candidates for the TORS procedure include patients with small to medium-sized tumors of the tonsil, soft palate, base of tongue, and larynx. In the past, the conventional surgical approach to these tumors would typically require a large incision through the lip and jawbone in a lengthy operation frequently lasting 10 to 12 hours. These conventionally-treated patients often would remain hospitalized with feeding tubes for up to 2 weeks following surgery.

Using the da Vinci robot for TORS, these same tumors can be removed more precisely and with less blood loss, due to improved visualization and the fine motion control of the robotic instruments. TORS patients can frequently resume an oral diet and go home from the hospital within 1 or 2 days.

### Analyzing Patient Outcomes

Dr. Wang states that, "Of course the most important measure of any new cancer treatment is how effective it is in curing the cancer." Early reports from other major hospitals around the country indicate that TORS patients have equivalent cancer control rates compared to both conventional surgery and radiation-based treatments and may have quicker recovery and improved swallowing function. "However," says Dr. Wang,



The da Vinci surgical robot consists of a three-dimensional high definition video camera and robotic arms with miniaturized instruments under the full control of the surgeon.

"like any new cancer treatment technique, it is important to continue to study the outcomes of patients in order to validate the findings of these early reports." UCSF, in collaboration with other centers around the country, is actively accruing information on their own patients who have undergone TORS in order to analyze the efficacy, outcomes, and costs associated with this new tool for the treatment of head and neck cancer.

Notwithstanding the initial success of the new UCSF Trans-Oral Robotic Surgery program, Dr. Wang believes that robotic surgery is an approach that must be selected appropriately. Not all head and neck cancer patients should be treated with TORS or even with surgery. Some patients are still best served by traditional open procedures (through the jaw and/or neck). All new head and neck cancer patients at UCSF receive evaluation by a multidisciplinary team that includes head and neck cancer specialists from otolaryngology-head and neck surgery, radiation oncology, medical oncology, and others, so that every patient is able to make an informed treatment choice. For those patients who will benefit from TORS, Dr. Wang and Dr. Ryan are pleased to be able to provide this exciting new treatment option. ■

# Comprehensive Care at Birthmark and Vascular Anomalies Center

**M**ost parents of children with complex medical conditions agree that they prefer a multidisciplinary approach. Having multiple experts come together to examine a child, review pertinent studies and discuss a comprehensive treatment plan is preferable for families rather than having to schedule multiple individual appointments.

The UCSF Birthmark and Vascular Anomalies Center (BVAC) has been seeing patients since 1991 and is the second oldest in North America. Pediatric Otolaryngology has been a part of the Center since 2002 when Dr. Kristina Rosbe arrived – which is fitting since over 50% of vascular anomalies occur in the head and neck.

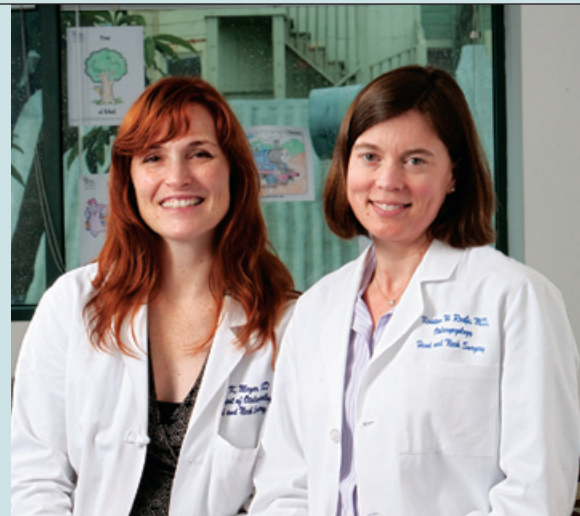
“I participated in Boston Children’s Hospital’s Vascular Anomalies Clinics when I was a fellow and knew this was something I wanted to continue throughout my career,” says Dr. Rosbe, Professor of Otolaryngology and Pediatrics and Director of Pediatric Otolaryngology at UCSF. “It is a privilege to be able to work alongside Dr. Ilona Frieden,” the founder of the Center and Director of Pediatric Dermatology at UCSF who has contributed

significantly throughout her career, to understanding of infantile hemangiomas and other vascular anomalies. Patients at the Center also have access to Dr. Christopher Dowd, one of the most experienced interventional radiologists in the techniques of sclerotherapy in the world.

### Monthly Clinics with Experienced Specialists

Patients are referred from all over California, the United States and even other countries. The Center holds clinic once a month. All the specialists see each patient and reconvene in a conference room to review pertinent imaging and other studies. A comprehensive treatment plan is formulated and communicated to the family at the end of the session.

Many patients and families who are referred are anxious. Their primary care provider has not been able to give them an accurate diagnosis. The uncertainty of the diagnosis causes stress and even concern for malignancy. One of the main goals of the UCSF BVAC is to educate patients and families about the natural history of the birthmark or malformation. Some diagnoses do



Dr. Anna Meyer and Dr. Kristina Rosbe at UCSF Children’s Hospital

not necessarily require intervention and will be followed until resolution. Other malformations may require intervention by multiple specialists.

### State-of-the-art Treatment and Research

The Center prides itself on being able to offer state-of-the-art treatments such as radiofrequency ablation of oral lymphatic malformations or propranolol for airway hemangiomas. The UCSF BVAC was one of the first centers to start using propranolol for treatment of hemangiomas and has now treated over 100 patients.

The UCSF BVAC is involved in several multi-institutional studies of hemangiomas and vascular anomalies, examining both safety and efficacy of treatments.

The Center has also recently published one of the largest series of PHACE patients, a constellation of complex medical conditions including (P)osterior fossa brain anomalies, large segmental (H)emangiomas, (A)rterial anomalies such as coarctation of the aorta or other (C)ardiac anomalies, and (E)ye anomalies. PHACE was first described by Dr. Ilona Frieden here at UCSF.

UCSF Pediatric Otolaryngology is proud to be part of this unique opportunity for patients and their families to access experienced specialists offering comprehensive state-of-the-art care backed by the most up to date research. ■



**One of the main goals of the UCSF BVAC is to educate patients and families about the natural history of the birthmark or malformation.**