Fleisigs’ Generous Gift Advances Research into Hearing Restoration

To hear sounds when there was once only silence is the promise of research being conducted by Dylan K. Chan, MD, PhD. That research received a huge boost earlier this year when David and Sara Fleisig made a generous $100,000 gift to fund Dr. Chan’s investigations.

Dr. Chan’s research is focused on Connexin 26, a protein encoded by the GJB2 gene; mutations in this gene comprise the most common cause of congenital hearing loss. The research goal is to eventually promote hearing restoration in those born with a Connexin 26 mutation.

The Fleisigs may seem unlikely donors to medical research since neither has a formal background in medicine. However, they have both become passionate about supporting scientific research. Mr. Fleisig explains that their interest in that research at UCSF began when they attended UCSF’s inaugural Mini Medical School program, a series of lectures for the public by UCSF faculty experts in the health sciences.

“We were very impressed with Dr. Chan and his work, so we decided to get involved.”

David Fleisig

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Message from the Chair

Growth and Opportunity

This issue of our newsletter contains several interesting stories about individuals, but the major story of our department is its growth and opportunity.

Associate Vice Chancellor Jennifer Grandis, MD, has renewed a Specialized Program of Research Excellence (SPORE) grant in head and neck oncologic research. This grant is now jointly headquartered at UCSF and the University of Pittsburgh. It is one of only two SPORE grants in this discipline that is currently funded, so UCSF has a spectacular opportunity to contribute to the development of new and actionable information that could advance translational care in head and neck oncology. Concomitant with our new laboratory development at the Diller building at Mission Bay is the head and neck team’s concentration on building a clinical trials infrastructure and implementing routine tissue banking.

We have recently recruited Patrick Ha, MD, to be the new Chief of Head and Neck Oncologic Surgery at UCSF. Patrick is an RO1-funded scientist with experience in translational research. He began his career at UCSF on October 1, and we are thrilled to welcome him. He has an unlimited horizon.

In pediatrics, UCSF has combined its teams at the UCSF Benioff Children’s Hospital in Oakland and UCSF Benioff San Francisco. We are excited about the opportunity to better serve both our East Bay and San Francisco communities in pediatric otolaryngology – head and neck surgery. We will continue to fine-tune seamless service between our two children’s hospitals and are actively recruiting new faculty members to this exciting team. One of these members is David Conrad, MD, who joined the department on July 1. Originally from the Bay Area, David trained at Albert Einstein College of Medicine in New York, followed by a pediatric otolaryngology fellowship at Nemours/Alfred I. duPont Hospital for Children in Delaware. He most recently was an attending at Brooklyn Hospital in New York. David is primarily based in Oakland and has hit the ground running to round out our service.

You will also read in this issue about the central purpose of our program: resident education. We are very proud that three of our chief residents have been placed into premier fellowships. Our residents have also been successful in competing for national grants (Dan Faden, MD, received a Core Grant and Jeff Markey, MD, received an American Academy of Otolaryngology – Head and Neck Surgery Travel Grant) and for UCSF grants (Jonathan Overdevest, MD, PhD, and Jeff Markey, MD, each received Clinical Transitional and Science Institute grants). In addition, an outstanding cohort of new residents and fellows has arrived at UCSF for the 2015-2016 academic year.

Finally, we congratulate Chase Heaton, MD, on his appointment as an assistant professor. Chase is a microvascular surgeon and a fellowship-trained ablative surgeon who joined the head and neck team on July 1. We know Chase well because he trained at UCSF (Class of 2014). He has a great career ahead of him.

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

Chief Residents Accepted into Leading Fellowship Programs

Former chief residents Shethal Bearely, MD; Daniel L. Faden, MD; and Jeffrey D. Markey, MD, have all matched into high-level fellowship programs for the 2016-2017 academic year.

Dr. Bearely will become a clinical fellow in the Advanced Head and Neck Oncologic Surgery Fellowship program at Vanderbilt University in Nashville, TN.

Dr. Faden will enter the Advanced Oncologic Head and Neck Surgery Fellowship program at the University of Pittsburgh, PA. The following year he will be a Cranial Base Surgery Fellow at the same institution.

Dr. Markey will be placed into the Facial Plastic Surgery fellowship at Oregon Health Sciences University in Portland.

Residents Receive National Grants

Three otolaryngology residents have been selected as recipients for a number of grants, as follows:

Daniel L. Faden, MD: Core Grant
Jonathan Overdevest, MD: Clinical and Translational Science Institute award
Jeffrey D. Markey, MD: American Academy of Otolaryngology – Head and Neck Surgery Travel Grant and Clinical and Translational Science Institute award
Bridging the Gap Between the Laboratory and the Clinic

In her own words, the “opportunity to study cancer biology in a community of world-class researchers” is what attracted Jennifer R. Grandis, MD, to UCSF.

She arrived in January of this year to fill multiple roles — as Associate Vice Chancellor of Clinical and Translational Research, Director of the Clinical and Translational Science Institute (CTSI), and an American Cancer Society Clinical Research Professor in the Department of Otolaryngology – Head and Neck Surgery.

“We are trying to unravel the complexity of head and neck cancer,” she explains. “We have mastered surgical techniques, we have more selective radiation therapy approaches, and there are a small number of drugs that have been FDA approved for this cancer. Radiation and cytotoxic chemotherapy are fairly nonspecific — they primarily kill dividing cells. And even though these patients’ tumors might look similar under a microscope, they are quite different biologically, so what we are trying to do in our laboratory is to understand the biological features of head and neck tumors in the context of identifying markers that will guide treatment.”

Precision Medicine

She describes her work as precision medicine. “We are trying to unravel the complexity of head and neck cancer to enable the identification of specific subgroups that would be amenable to targeted approaches. Increased understanding of cancer biology will help us identify predictive biomarkers.”

Dr. Grandis says that with the increased availability of genetic and epigenetic information on a relatively large number of head and neck cancers, we are poised to begin to unravel the biologic complexity of this disease.

“One of the best examples of a relatively large pathologic subgroup is that we now know that some head and neck cancers are linked to infection with the human papillomavirus (HPV) and other head and neck cancers are not. What is clear is that cancers that are caused by HPV have more in common with each other than cancers that are not caused by HPV.”

Cancer Research

Her research focuses on signal transduction in head and neck squamous cell carcinoma development and progression, with the ultimate goal of targeting key pathways for therapeutic benefit.

That research has already led to the development of some treatments that will eventually help patients.

“We developed an antisense gene-therapy approach that targets the epidermal growth factor receptor (EGFR), which is increased in head and neck cancers,” she explains.

“We reported the results of a Phase I trial with promising results and a Phase II study was recently completed and reported at ASCO.”

Another treatment approach blocks the transcription factor, Signal Transducer and Activator of Transcription 3 (STAT3). “Transcription factors have generally been thought of as ‘undruggable’” she says.

“We are finishing the IND-directed toxicology studies in anticipation of implementing a Phase I clinical trial in the next five years.”

An otolaryngologist, Dr. Grandis spent her entire career at the University of Pittsburgh, where she earned her medical degree and trained in the Otolaryngology Program. During her residency she elected to take a year off to do basic research. “I chose to study cancer biology, and I became really engaged in the potential for links between the laboratory and the clinic to improve therapies,” she says.

She also held the the Endowed Chair in Head and Neck Cancer Surgical Research and she was named Distinguished Professor of Otolaryngology and Pharmacology and Chemical Biology. She led the Head and Neck Cancer Program in the University of Pittsburgh Cancer Institute and was the Vice Chair for Research in the Department of Otolaryngology.

New Opportunities at UCSF

“My prior institution was wonderful and I am deeply grateful for the training and career opportunities I had in Pittsburgh, but there is something extraordinary about UCSF. There is a density of talent at all levels – the students, the trainees, the faculty. To interact with all these people is wonderful.”

UCSF also provided the “opportunity to assume an administration position that would enable me to improve the research environment for all trainees and faculty,” she adds.

In addition to her research, Dr. Grandis is working to renew the National Institutes of Health’s Clinical and Translational Science Award to enable CTSI to receive funding for the next five years.

In her role as Associate Vice Chancellor of Clinical and Translational Research and the Director of CTSI, Dr. Grandis says she is “working to remove barriers to research and improve coordination of processes that historically have not been as well coordinated as they could be.”
Making the Trek

“We made the trek over from Berkeley to Parnassus to go to Mini Med School,” he says. “We were really taken with the program and have since attended many more Mini Med programs. We became very interested in basic medical research and in the more practical applications of research as well. Eventually we decided to include UCSF’s Innovative Basic Science Program in our estate plans, and we did so.”

Mr. Fleisig notes that the second phase of their planned giving to UCSF was more focused.

“We have family members with serious hearing issues and thought it would be interesting to see what was being done in hearing research at UCSF,” he adds.

They learned about Dr. Chan’s work on the development of gene therapy for hearing loss associated with mutations in Connexin 26 and decided that was an area they wanted to support.

“It was basic research,” notes Mr. Fleisig. “Its fundamental long-range goal was to help people with hearing loss. We were very impressed with Dr. Chan and his work, so we decided to get involved.”

Research Moves Forward

“We are well on our way to creating research models of Connexin 26-associated deafness,” says Dr. Chan. Stephanie Rouse, a technician in his lab, has created DNA constructs using the CRISPR/Cas9 technique, a state-of-the-art technique for genome modification that was developed by Jennifer Doudna, PhD, at UC Berkeley.

“We just had confirmation that our CRISPR/Cas9 constructs are able to target Connexin 26 properly, and we are moving on towards the last steps in making and evaluating the research models,” he notes. “In addition, we have acquired and are breeding a different mouse that we will be able to analyze to understand better how dysfunction of Connexin 26 causes hearing loss.”

Dr. Chan’s lab is also doing preliminary work on the efficient delivery of Connexin 26 into the cochlea using viruses, and his team is exploring a particularly powerful virus – the 7m8 virus – which is used extensively for retinal gene therapy trials. The researchers believe that the 7m8 virus will be very effective at getting Connexin 26 into the intended cells.

“In today’s funding climate, traditional sources of support for basic and clinical research can be quite risk-averse, restrictive, and challenging for early investigators to secure,” Dr. Chan explains. “The generous gift from Mr. and Mrs. Fleisig has given me the freedom to develop exciting avenues of research that will get us to the point where our work can compete for sustainable funding. David and Sara’s enthusiasm in the science itself and their commitment to supporting it is a wonderful inspiration and motivation for me.”

“The end result of Dylan’s research is that people with very serious hearing impairment or total loss of hearing might be spared that,” says Mr. Fleisig. “We hope for success, and we are very pleased to be playing a part in making it possible for this important research to move along.”

Hearing Restoration Research

Continued from front page

Mutations of the Connexin 26 protein (shown at right) are the most common causes of congenital hearing loss.

David and Sara’s enthusiasm in the science itself and their commitment to supporting it is a wonderful inspiration and motivation for me.

Dylan Chan, MD, PHD
Three New Faculty Welcomed to Department

**OHNS Welcomes David Conrad, MD**

David Conrad, MD, joined the department in July as an Assistant Professor. Dr. Conrad graduated magna cum laude with a BA in History from Colgate University in Hamilton Township, NY. After earning his MD, he was inducted into Alpha Omega Alpha at The George Washington University School of Medicine and Health Sciences in 2008. He completed a residency and was Chief Resident in Otolaryngology – Head and Neck Surgery at Albert Einstein College of Medicine in Bronx, NY. Dr. Conrad subsequently completed a fellowship in Pediatric Otolaryngology – Head and Neck Surgery at Nemours/Alfred I. duPont Hospital for Children in Wilmington, DE. Following his fellowship, Dr. Conrad was in private practice in Brooklyn, NY.

“David will be focusing his efforts at UCSF Benioff Oakland Children’s Hospital and will closely partner with Garani Nadaraja, MD, at that site,” noted Department Chair Andrew H. Murr, MD. “He will also be part of the Pediatric Otolaryngology – Head and Neck Surgery division under Kris Rosbe, MD, at UCSF Benioff and will have privileges at our brand new hospital at Mission Bay. He will bring a cooperative spirit and fresh perspective to our hospitals, our community and our university.”

**Patrick Ha, MD, Becomes Chief of Head and Neck Oncologic Surgery**

Patrick Ha, MD, joined the Department of Otolaryngology – Head and Neck Surgery in October 2015 as the Irwin Mark Jacobs and Joan Klein Jacobs Distinguished Professor in Head and Neck Cancer and Chief of Head and Neck Oncologic Surgery at UCSF. “Patrick has expertise in all aspects of head and neck oncologic surgery including head and neck endocrine surgery, robotic surgery and ablative surgery” commented Department Chair Andrew H. Murr, MD. “This, combined with his management skills and his collegial nature, will make him a great team member and team leader as we advance the translational capacity of our head and neck oncologic clinical and research enterprise. Please join me in welcoming Patrick to the department!”

Dr. Ha earned his undergraduate degree from Harvard College in Cambridge, MA. He earned his MD from Johns Hopkins University in Baltimore, MD. His internship, residency and advanced training in Head and Neck Surgery were also completed at Johns Hopkins. Since completing his training, Dr. Ha has been a clinician scientist on the full-time faculty at Johns Hopkins University, working at the Greater Baltimore Medical Center.

Dr. Ha is an expert in salivary cancer and treatments, including new therapies to address the disease. His National Institutes of Health-funded research supports work to determine adenoid cystic carcinoma mechanisms. Dr. Ha is also involved in other basic science research investigating the mechanisms underlying head and neck cancer.

**Chase Heaton, MD, is Named Assistant Professor**

Chase Heaton, MD, joined the Department of Otolaryngology – Head and Neck Surgery in July 2015 as an assistant professor. Dr. Heaton’s surgical internship was at UCSF, followed by an OHNS four-year residency (2010-2014). His advanced training was completed during his UCSF OHNS fellowship the following year. His undergraduate degree was earned at the University of Notre Dame, in South Bend, IN, and Dr. Heaton earned his MD in 2009 at Loyola University’s Stritch School of Medicine in Maywood, IL.

“We look forward to having Chase as a team member in Head and Neck Surgery,” noted Department Chair Andrew H. Murr, MD. “He is a skilled fellowship-trained ablative and microvascular surgeon.”

Dr. Heaton has interests in head and neck oncologic and reconstructive surgery, head and neck endocrine surgery, and clinical research. He also has a strong interest in medical education in the field of Otolaryngology – Head and Neck Surgery. He has served as a mentor for medical students and has been a committee member on the American Academy of Otolaryngology – Head and Neck Surgery’s Education Committee since 2013.
RESIDENCY CLASS OF 2020

Annick Aubin-Pouliot, MD

Dr. Aubin-Pouliot received her undergraduate degree from the Massachusetts Institute of Technology in Cambridge, MA, in 2009. She performed research at the Massachusetts Eye and Ear Infirmary in 2009-2010. Her 2012-2013 Otolaryngology – Head and Neck research was performed with William Ryan, MD, and Jolie Chang, MD. In 2015, Dr. Aubin-Pouliot received her medical degree from UCSF School of Medicine. Dr. Aubin-Pouliot has also performed extensive medical service work both nationally and internationally, including work in otolaryngology and urgent care clinics in Paraguay in March 2014. She entered UCSF’s Otolaryngology – Head and Neck Surgery program as an incoming PGY-1 resident in June 2015.

John E. Formeister, MD

Dr. Formeister received his BS in 2005 from the University of North Carolina (UNC) at Chapel Hill. In 2010, he completed his MS in Environmental Sciences and Engineering from UNC Gillings School of Public Health. He was the recipient of the UNC Scott Neil Schwirick Fellowship (2014) and the Howard Holderness Distinguished Medical Scholar Fellowship (2013-2015). Dr. Formeister completed his MD at the UNC School of Medicine at Chapel Hill in 2015. In June 2015 he became a PGY-1 resident with Otolaryngology – Head and Neck Surgery at UCSF.

Andrew Roch Larson, MD

Dr. Larson received a BA from the University of Otago, Dunedin, New Zealand in 2007 and entered the UCSF School of Medicine in 2010. He was the recipient of a Howard Hughes Medical Institute Research Scholar Fellowship and performed research from 2013-2014 in the UCSF Center for Craniofacial and Mesenchymal Biology under the direction of Jeffrey Bush, MD. Dr. Larson received his MD from the UCSF School of Medicine in 2015. He became a UCSF PGY-1 resident with Otolaryngology – Head and Neck Surgery in June 2015.

Jason S. Park, MD, PhD

Dr. Park received his BS from the Massachusetts Institute of Technology, Cambridge, in 2005 and a masters of engineering from the same institution in 2006. He was a 2006-2015 recipient of the National Institutes of Health Medical Scientist Training Program Award. Dr. Park earned his PhD in bioengineering in 2013 as part of the combined MD/PhD Medical Scientist Training Program at UCSF/UCB, and he received his MD in 2015 from UCSF. As a UCSF medical student, Dr. Park performed otolaryngology research with Drs. Dylan Chan, Chase Heaton, William Ryan and Steven Wang. In June 2015, Dr. Park entered the UCSF Otolaryngology – Head and Neck Surgery program as an incoming PGY-1 resident.
Two lectures this fall will honor distinguished UCSF leaders who influenced the direction and enhanced the vision of the UCSF Department of Otolaryngology – Head and Neck Surgery.

**BOLES LECTURE**
The annual Roger Boles, MD, Lectureship is scheduled for 5:00 p.m. on Thursday, October 15 in Byers Auditorium in Genentech Hall on the UCSF Mission Bay campus. The lecture honors former Department Chairman Roger Boles, MD, and will feature Roger L. Crumley, MD, MBA, as the speaker. The lecture will be followed by a reception.

Dr. Crumley is a Professor and Chair Emeritus of the University of California, Irvine (UCI), Department of Otolaryngology – Head and Neck Surgery as well as the Immediate Past Chair of the Irvine Medical Group. He will discuss “Laryngeal Innervation, Reinnervation and Synkinesis.” The lecture is subtitled: “Roger Boles’ Influence on so Many of Us.”

In his lecture Dr. Crumley will review the past, present and future aspects of both laryngeal synkinesis and reinnervation. “Much of this work originated at San Francisco General Hospital and UCSF,” Dr. Crumley notes. “This will be presented in such a way as to recognize Dr. Boles’ support of my early research interests, which was so typical of his positive influence on all of his faculty members’ clinical, teaching and research efforts.”

Dr. Crumley is a graduate of the University of Iowa Otolaryngology – Head and Neck Surgery Residency Program. Following graduation he joined the faculty of UCSF’s Department of Otolaryngology – Head and Neck Surgery, progressing to become a Clinical Professor of Otolaryngology – Head and Neck Surgery. In October 1987 he accepted the position of Professor and Chief of the Division of Otolaryngology – Head and Neck Surgery at UCI Medical Center. He remained chairman of the department until July 2007.

**SCHINDLER LECTURE**
Steven Telian, MD, will deliver the Robert A. Schindler, MD, Endowed Lecture in Otology at 5 p.m. on Thursday, December 3 at Oberndorf Auditorium, at UCSF Mission Bay Hospitals. Dr. Telian will speak on

“Surgery for Vestibular Disorders: Foundational Principles and Evolving Practice.” A reception will follow the lecture.

Dr. Telian completed his MD at the University of Pennsylvania School of Medicine in Philadelphia and completed his MS at the University of Michigan School of Public Health. This was followed by an Otorhinolaryngology and Human Communication residency at the University of Pennsylvania and a clinical fellowship at the same institution. He is currently the John L. Kemink Professor of Neurotology in the Department of Otolaryngology – Head and Neck Surgery at the University of Michigan.

The Schindler lecture is an endowed program that was established in 2004 by Robert A. Schindler, MD, and Janet Feinberg Schindler. Dr. Schindler was Chairman of the Department of Otolaryngology at UCSF from 1989 to 1999.

Further information on these lectures can be found on the department website at http://ohns.ucsf.edu.
Upcoming Events

The Roger Boles, MD Lectureship
October 15, 2015 – 5:00 PM
Speaker: Roger L. Crumley, MD, MBA, UC Irvine
UCSF Mission Bay, Byers Auditorium in Genentech Hall, San Francisco, CA

Sialendoscopy/Salivary Duct Surgery Course
November 4, 2015
Grand Hyatt, San Francisco, CA

Otolaryngology Update: 2015
November 5-7, 2015
Grand Hyatt, San Francisco, CA

Robert A. Schindler, MD, Endowed Lecture in Otology
Thursday, December 3, 2015 – 5:00 PM
Speaker: Steven A. Telian, MD, University of Michigan
UCSF Mission Bay Hospitals, Orberndorf Auditorium, San Francisco, CA

22nd Annual Advances in Diagnosis and Treatment of Sleep Apnea and Snoring
February 12-13, 2016
Grand Hyatt, San Francisco, CA

Pacific Rim Otolaryngology – Head and Neck Surgery Update Conference
February 13-16, 2016
Moana Surfrider Hotel, Waikiki Beach, Honolulu, HI

For further information about CME courses please go to http://cme.ucsf.edu.
For information on departmental events please visit http://ohns.ucsf.edu or contact Linh Nguyen at linh.nguyen@ucsf.edu.