



UNC

DEPARTMENT OF OTOLARYNGOLOGY/
HEAD AND NECK SURGERY

HEADS

Up

Summer 2011 • VOL. 14 • ISSUE 3

UNC Doctors and Scientists Receive Pediatric Airway Modeling Grant

An open airway is critical for life. It always comes first. It is the “A” in the “A,B,C’s” of critical care and resuscitation. It is difficult for most of us to imagine what it would be like to suffer with a problem which closed off our airway and threatened our life. It is harder still to imagine what it would be like to watch your newborn child suffer with such a condition. Recently, a multi-disciplinary team of physicians and scientists at the University of North Carolina at Chapel Hill have been awarded a 3.6 million dollar grant from the National Institutes of Health to develop novel computer modeling tools of the pediatric airway to assist in guiding therapeutic options for infants and children with airway obstruction.

Carlton Zdanski, MD (Chief, Pediatric Otolaryngology and Surgical Director of The North Carolina Children’s Airway Center), Stephanie Davis, MD (Chief, Pediatric Pulmonology), and Richard Superfine, PhD (Director, Computer Integrated Systems for Microscopy and Manipulation, Department of Physics and Astronomy), will serve as Co-Principal Investigators on an R01 grant awarded

from the National Institutes of Health entitled “Predictive Modeling for Treatment of Upper Airway Obstruction in Young Children.”

The grant specifically examines computational fluid dynamic modeling of the pediatric airway utilizing computed



FROM LEFT: Carlton Zdanski, Stephanie Davis and Richard Superfine are working on a computer model to evaluate surgical options for children with obstructed airways.

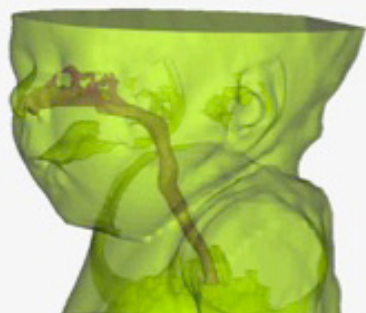


THE MAN IN THE SCI-FI MASK:
Carlton Zdanski, MD

tomographic imaging, medical, physiologic and endoscopic data. This multi-pronged effort aims to produce new tools to evaluate the pediatric airway and to create computer models. This will allow physicians and scientists to predict which medical or surgical interventions are most appropriate in specific children and with disease states. This study specifically examines infants and children with Pierre Robin Sequence and subglottic stenosis, but the tools developed should ideally be more broadly applicable to a vast multitude of other airway problems occurring in children and adults.

“This has tremendous implications for treatment down the line,” Dr. Zdanski said. “The first step is to develop the model and determine the model’s value. If it turns out to be useful, it has the potential to change the standard of care in the diagnosis and treatment of airway problems and to allow for optimal surgical and medical planning.”

“Medicine and surgery always requires judgment. You have to balance risking too much intervention versus too little. Timing is critical. These judgments have real



Three-dimensional Airway Model with Soft Tissue Overlay

PEDIATRIC AIRWAYS *continued on page 3*

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BEST HOSPITALS

Ear, Nose & Throat

2011

#20 Ear, Nose and Throat in Nation

#1 in North Carolina

#2 in Southeast

#18 in Residencies

#7 Public Department in Nation

UNC-CH Department of Otolaryngology/Head and Neck Surgery ranked 20th place in the US News and World Report Ear, Nose and Throat category, making UNC-CH ENT the highest ranking department in the University of North Carolina at Chapel Hill. UNC ENT moved up from #21 in 2010. The US News uses a scoring methodology which is based upon Reputation, Mortality Rate, Patient Satisfaction, Technology, Management status, Safety Market, Patient Volume, and Intensivist.

Chair's Corner



Harold C. Pillsbury, MD

This issue of Heads Up encompasses the two most significant missions of our department. This includes the incorporation of new residents to the program and the completion of residents at the end of the program, as well as

the introduction of innovative new technology into patient care.

In terms of resident recruitment and education, we were very fortunate this year to have fabulous residents graduate from our program and embark upon very meaningful careers. Our new residents for this year are equally stellar and well qualified, and they promise to bring exciting new ideas to our department.

From a standpoint of clinical care, Dr. Zdanski's Computational Fluid Dynamic Modeling work in Pediatric Otolaryngology is state of the art. It is this sort of innovation that pushes us to the forefront of our specialty.

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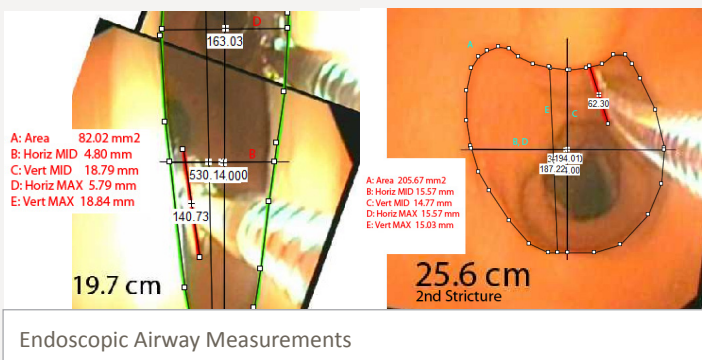
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med.unc.edu/ent

Summer 2011 Heads Up is an original design, and is edited by Nicolette DeGroot. Headshot of Zdanski, and group photos of residents were shot by Nicolette. Summer 2011 Heads Up is printed on 30% post-consumer recycled paper.



life and death as well as functional consequences for our patients and their families. In infants and children, these consequences, which can last a lifetime, can be particularly dramatic.”

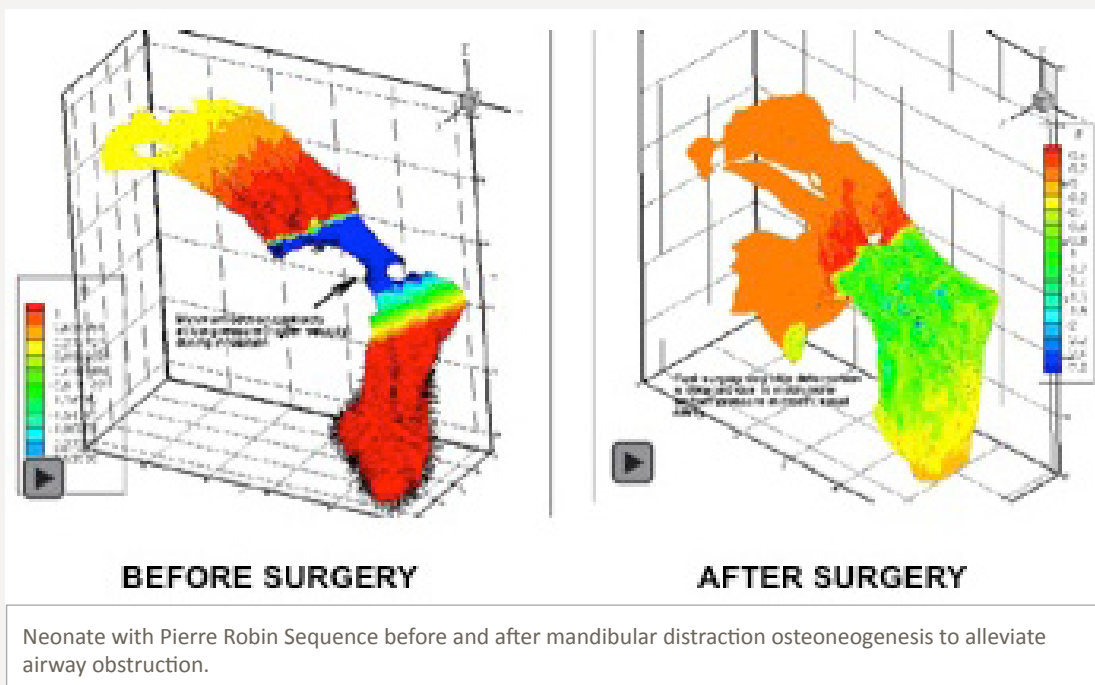
“Currently, treatment for airway problems can vary widely depending on where you get treatment, the experience and preferences of the treating physicians, and available resources. Our goal is to eventually develop new tools that give us improved abilities to predict which specific medical and surgical procedure or treatment, in the proper timing and sequence, in a specific child yields the most favorable outcomes. This will help to avoid unnecessary procedures and wasteful, potentially dangerous periods of observation for kids with airway problems. Overall, this will ideally help to balance the timing and degree of intervention,

decrease risk to the child, and improve outcomes for each individual child.”

Dr. Davis said this project is unique because it pulls together multiple disciplinary groups across the UNC campus. “It represents a broad collaboration between pediatric otolaryngology/head and neck surgery, pediatric pulmonology, physics and astronomy, mathematics, biostatistics, computer science, and The North Carolina Children’s Airway Center,” Dr. Davis said. “It brings together the virtual side with the clinical side.”

ONLINE EXTRAS: See the researcher’s talk about their study. Please visit: <http://youtu.be/G94K35DDQDU>

The endeavor represents a broad collaboration between Pediatric Otolaryngology/Head and Neck Surgery, Pediatric Pulmonology, Physics and Astronomy, Biostatistics, Computer Science, The North Carolina Children’s Airway Center, and the TRaCS Institute. It will include the efforts of Robert Buckmire, MD (OHNS), Jason Fine, PhD (Biostatistics), Lynn Fordham, MD (Pediatric Radiology), Julia Kimbell, PhD (OHNS), Marianna Muhlebach, MD (Pediatric Pulmonology), and George Retsch-Bogart, MD (Pediatric Pulmonology), Sorin Mitran, PhD (Mathematics), Amy Oldenburg, PhD (Physics and Astronomy), Russell Taylor, PhD (Computer Science), Brad Davis (Kitware),





FROM LEFT TO RIGHT:
Drs. Michael Stadler, Deidra Blanks, Paula Harmon, and Mitchell Gore celebrate the successful completion of residency at a banquet held in their honor on June 4, 2011

Chief Residents

REFLECT ON TRAINING

Michael E. Stadler, MD: It has been an honor to have been given the opportunity to work with everyone in the department at UNC, over the past five years. I still recall my first impressions as a visiting medical student and realized that was where I wanted to start my training as a head and neck surgeon. I want to thank “the boss” for allowing my wife and I to train at UNC together. To the administration staff, and nurses, I want to thank you for your constant assistance and support in patient care: a job we all know is often thankless and challenging. I want to thank each mentor and attending for their guidance, expertise, and clinical judgment in patient care. And lastly, I want to thank my fellow residents. You have all taught me so much and have put up with me over these years. I will miss you all as I take this next step in my professional journey. My year-long fellowship will be at Washington University in St. Louis specializing in Head and Neck Oncologic Surgery and Reconstruction. I will always have fond memories of my time here at UNC, and will always be a Tar Heel at heart. Thank you, friends.

Deidra A. Blanks, MD: It is an honor and privilege to have completed my Otolaryngology residency at UNC Chapel Hill. I decided late in medical school to pursue an ENT residency. However, I did not match and had to pursue a general surgery internship. I was offered the opportunity the

following year to interview at UNC for a second year residency position. I will never forget the drive back to Winston Salem, when I received the phone call that I would be an ENT resident at one of the top programs in the country. Completing the T32 grant, I was allowed to spend two years in the lab, learning the trials and joys of research. During six years with UNC, I found that this residency challenges and pushes its residents to succeed. Yet, I have also found a program which offers friendship, laughter and compassion for patient care. I will always be thankful for the support from the professors, nurses and the entire UNC staff. I will complete my fellowship at the University of Missouri with LaFerriere and Kienstra Facial Plastics Surgery.

Paula J. Harmon, MD: I want to express my sincere gratitude and respect for the program that has helped mold me into the physician I am and will become. During the past 5 years, the nursing staff, administrators and assistants adopted me as their “Wild Child,” for which I truly appreciated. UNC’s superb group of fellow residents are second to none. I want to thank you for allowing me to be me, and being good friends, residents and associates. Dr. Pillsbury, you have been my rock throughout this program. Dr. Shores, I truly appreciate the opportunity to travel to Malawi. Dr. Drake, you are a dear friend, mentor, and role model. I aspire to become a world-renowned

pediatric otolaryngologist as you have done so gracefully. I will embark on my journey to becoming a pediatric otolaryngologist with a fellowship at the University of Alabama at Birmingham in July.

Mitchell R. Gore, MD, PhD: These past five years of residency at UNC have been some of the best of my life. I still remember doing Dr. Pillsbury’s clinic as a third year medical student and telling him of my interest in otolaryngology. I remember Match day the next year, opening my envelope with my wife and having her read it also to make sure it really said UNC! Needless to say, training here at UNC has been an honor. Every day I am amazed at the compassion, knowledge, and professionalism exemplified by our attendings here at UNC. Getting to finally put in a Grillo stitch, my first time under the microscope doing a free flap, these are experiences I’ll always remember. The times I’ve spent with my fellow residents with always stick with me. The residents here are some of the finest people I have known, and I feel grateful every day to have been able to train with such an incredible group. It goes without saying I will miss Michael, Paula, and Deidra. I couldn’t be more excited to be the first Rhinology/Anterior Skull Base fellow next year, and I will always be grateful to Dr. Pillsbury and everyone here at UNC, for such a great residency experience.

FROM LEFT TO RIGHT:
ENT residents Anand R. Dugar, MD,
Cristina N. Klatt-Cromwell, MD,
Gitanjali Madan, MD, and
Adam P. Campbell, MD

GET to KNOW the New Residents



The new Otolaryngology/Head and Neck Surgery residents bring an array of interests, skills and experiences to the Department. They began their training in June 2010.

Anand Raj Dugar, MD is originally from Beaumont, Texas, where he graduated valedictorian from high school. He attended the 6-year BS/MD combined program at Pennsylvania State University and Thomas Jefferson Medical College, receiving his MD at the age of 23. Anand started his medical career on the other side of the drapes, training as an anesthesiology resident at The University of Pittsburgh Medical Center from 2005-2008. Over the last 7 years as both a resident and a board-certified attending anesthesiologist, Anand realized his passion for the field of otolaryngology, and he is enthusiastic to be joining the UNC Otolaryngology family. Anand is particularly interested in laryngology, head and neck cancer and reconstructive surgery. As an avid sports fan, Anand loves attending professional football and basketball games and rooting for his Pittsburgh Steelers.

Cristine Klatt-Cromwell, MD was born in Mexico, but grew up in Stillwater, Oklahoma, graduating valedictorian from high school. Accepted into the Medical Humanities Program at the University of Oklahoma, Cristine attended medical school directly after high school. She earned a Bachelor in Biochemistry at University of Oklahoma, Summa Cum Laude. Cristine completed her medical education at the University of Oklahoma Health Sciences Center,

graduating with Special Distinction and member of AOA. Cristine is particularly interested in reconstructive and head and neck surgery. She is excited to join the UNC ENT family. Cristine loves community outreach, international missions, traveling, foreign cuisine, and biking with her husband, Michael.

Gitanjali Madan, MD grew up in Cary, North Carolina, and completed her undergraduate degree in English Literature from UNC-Chapel Hill. Gita received a Master's degree in Physiology and Biophysics from Georgetown University. Gita returned to UNC for medical school, where she spent a year as a research fellow under the Howard Holderness Distinguished Medical Scholars Program, conducting a year of research with Dr. John van Aalst of the Dept. of Surgery and Dr. Amelia Drake from the Dept. of OHNS. In her spare time, Gita enjoys running, entertaining, decorating her home, and discovering new restaurants. Gita recently married David Fleischman, a resident in the Department of Ophthalmology at UNC.

Adam P. Campbell, MD is originally from Charlotte, NC, and attended Vanderbilt University in Nashville, TN where he graduated magna cum laude with a B.A. in Communication Studies. During college, he spent a semester abroad in Florence, Italy. Adam earned his medical degree at the University of North Carolina at Chapel Hill, during which time he spent a year in the lab of Oliver Adunka, M.D. and Doug Fitzpatrick, PhD working on the development of

an intracochlear recording system. Adam is excited about joining the UNC Otolaryngology family and the opportunity to continue research in cochlear implantation. In his free time, Adam enjoys playing golf, tennis, waterskiing, traveling, cooking and following the Carolina Panthers.



Keimun Slaughter, MD

Keimun A. Slaughter, MD is originally from Pensacola, Florida, but grew up in Lawrenceville, a suburb outside of Atlanta, Georgia. He attended the University

of Georgia, where he received his Bachelor's degree in Biology. He then matriculated at Morehouse School of Medicine in Atlanta proper, where he received his MD. Keimun's particular scientific interests include tissue engineering and regeneration, along with congenital birth defects and craniofacial anomalies. His surgical interests include aesthetic and reconstructive surgery. He completed two years of General Surgery at Duke University before transitioning to the University of North Carolina, Chapel Hill, to complete his training in Otolaryngology, Head and Neck Surgery. He enjoys spending time with his wife, Shavonne, traveling, cooking and playing sports including basketball and golf.

Whatever happend to... Dr. Jonathan Workman?

Dr. Jonathan Workman finished his resident training at UNC in 1998, with fellow Chief Residents Drs. Rudy Triana and Kristina Rosbe. From there he moved to San Antonio, TX, with his wife, Dr. Vanessa Albernaz, and served at Wilford Hall Medical Center as a Major in the United States Air Force, teaching residents in the combined Army and Air Force Otolaryngology Training Program. He had the opportunity to invite several of the UNC faculty for temporal bone lab courses, pediatric foreign body courses and sinus courses introducing his Armed Force residents to the UNC way. He served as team leader of mission trips to Honduras where Otolaryngology care was provided to those in need in San Pedro Sula. He has fond memories of his Air Force time and developed lasting friendships from his experiences.

After his Air Force Service, Jon spent a year with Dr. Robert Ossoff in Nashville, TN at the Vanderbilt Voice Center's Fellowship Program. He worked with residents at Vanderbilt University and was able to teach in both clinical and operating room settings. The Music City was a great place to spend a year and Dr. Ossoff was an excellent teacher but North Carolina was calling all along.

In 2002, Dr. Workman joined Eastern Carolina Ear, Nose and Throat Surgery in Greenville, NC. He practices at Pitt County Memorial Hospital (PCMH). Dr. Workman practices with five other Otolaryngologists, including Dr. Marcus Albernaz (Vanessa's older brother), Dr. Paul Camnitz (UNC Otolaryngology and College alumni trained by Dr.

Newton Fischer), and Dr. Brad Brechtelsbauer (UNC alumni).

Jon is the director of the Eastern Carolina ENT Voice



Center in Greenville, North Carolina, and works with three full time speech pathologists as a fellowship trained laryngologist. He also participates in tertiary care ENT trauma, head and neck cancer care through the Pitt County Memorial Hospital's Tumor Board and has a broad general ENT practice UNC prepared him for.

Dr. Workman is now an associate professor at the Brody School of Medicine's Department of Surgery, teaching medical students and primary care residents basic Otolaryngology. While Jon was in the Air Force, his wife Dr. Vanessa Albernaz, completed an interventional radiology fellowship at the University of San Antonio TX (UTSA). She is now an interventional radiologist at Eastern Radiologists Inc. in Greenville.



Jon will celebrate his 20th wedding anniversary with Vanessa this year. They have 4 daughters: Maria (6), Juliette (4), Alexandra (2) and Athena (7 mo.).

After work, he enjoys spending time with the

girls. Maria and Juliette (and soon Alex) play violin daily. They study using the Suzuki Method. Jon was a Suzuki kid growing up in Ohio, and rediscovered his love and talent for playing the violin. He loves to teach the girls and play duets with them.

Jon and Vanessa love the mountains and have introduced the girls to skiing and hiking in the Colorado Mountains where they like to take family vacations. Also in the summer, the girls love to spend time on North Carolina's beautiful beaches building sand castles. Jon and Vanessa are active supporters of classical music in Greenville NC, enjoying the Four Seasons Chamber Music Festival throughout the year.

ENT Announcements

Craig A. Buchman, MD, FACS is a recipient of a \$400,000 grant from the NIH, from the study Cochlear Implantation in Children with Labyrinthine Anomalies and Cochlear Nerve Deficiency: Implications for Auditory Brainstem Implantation. This study observed outcomes among children with inner ear malformations and cochlear nerve deficiency with a cochlear implant. The study was a collaborative effort by UNC ENT, and features **Holly F. B. Teagle, AuD; Patricia A. Roush, AuD; Lisa R. Park, AuD; Debora Hatch, AuD; Jennifer Woodard, AuD; Carlton Zdanski, MD; and Oliver F. Adunka, MD** as contributing authors. The American Laryngological, Rhinological and Otological Society feature the study in *The Laryngoscope* publication.

Grace G. Kim, MD received the two-year NIH Loan Repayment award for Clinical Research.

The 10th edition of Castle Connolly Medical, Inc. recognized **Drs Harold Pillsbury, Mark Weissler, Brent Senior, and William Shockley** as "America's Top Doctors" in the specialty of Otolaryngology, and **Dr. Amelia Drake** in Pediatric Otolaryngology. Dr. Weissler is also listed in the 5th edition of Castle Connolly's "America's Top Doctors for Cancer." UNC ENT's nominated by their peers in an extensive survey process of thousands of American doctors.

Adam Campbell, MD received the Deborah C. Leary award for the paper *Correlation of Early Auditory Potentials and Intracochlear Electrode Insertion Properties: An Animal Model featuring Near Real-Time Monitoring*. Adam worked with Drs. Adunka and Fitzpatrick under a yearlong research grant from the Department as a medical student.

UNC Health Care's real doctors, real

people video featuring **Deepak R. Dugar, MD** won four bronze Telly Awards. Thanks to everyone who voted for the video!

Baishakhi Choudhury, MD received an AAO-HNSF Resident Research Grant for her grant proposal entitled *The Treatment of Otitis Media with Effusion using CpG Oligodeoxynucleotides*.

Julia Kimbell, PhD collaborated with Dr. John Rhee at the Medical College of Wisconsin on virtual nasal surgery research, *Toward Personalized Nasal Surgery Using Computational Fluid Dynamics*. The paper featured another UNC collaborator, Guilherme J. M. Garcia, PhD.

Mark C. Weissler, MD was accepted into the American Surgical Association in June 2011.

The 115th Annual AAO-HNSF Meeting & OTO EXPO is September 11-14, 2011 in San Francisco, California. The Department will be widely represented, featuring presentations by **Drs Grace Kim, Jake P. Dahl, and Dennis O. Frank, PhD. Adam M. Zanation, MD and Brent A. Senior, MD** will teach two courses and **Craig Buchman, MD** will be featured as moderator and presenter for three miniseminars.

On May 11, 2011, **Craig A. Buchman, MD** attended a Medicare Evidence Development & Coverage Advisory Committee (MEDCAC) meeting to provide data on the effectiveness of cochlear implants (CI) in patients, and to urge the Centers for Medicare and Medicaid Services (CMS) to expand its coverage for the device. Although MEDCAC, which makes recommendations to CMS about its coverage for devices, concluded there was not enough evidence to expand

Medicare coverage for CIs, it plans to continue engaging specialty societies and CI manufacturers so it can obtain more robust data on health outcomes. **ONLINE EXTRAS:** See more at entnet.org/Practice/MEDCACCochlearImplants.cfm.

Craig A. Buchman, MD was named a founding board member of the American Cochlear Implant Alliance (ACIA). The ACIA is a newly founded organization dedicated to creating access to cochlear implantation for all that can potentially benefit.

UNC was well represented at the 13th Symposium on Cochlear Implants in Children held in Chicago from July 14-16. The UNC team gave more than 10 oral and poster presentations at the conference on many topics relating to cochlear implantation and other implantable auditory prostheses. The team continues to lead the field through their commitment to the highest quality patient care, research, and teaching.

*It comes with great sadness to report the passing of **Shelvy Jean Riley**. Shelvy passed away Friday, July 1, 2011.*

Shelvy touched many lives in our Department, teaching 74 residents along with working and comforting over 108,000 patients. Shelvy was a member of the ENT Family for 23 years and will be forever remembered for her laughter and sense of humor. Shelvy will be greatly missed by everyone.





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