



UNC

DEPARTMENT OF OTOLARYNGOLOGY/
HEAD AND NECK SURGERY

FALL/WINTER 2012 • VOL. 14 • ISSUE 3

HEADS Up



SURE DOES GET DUSTY IN THESE PARTS: Army Specialist Alex Sams (left), husband of ENT Nurse, Katie Sams, and Private First Class Lipsky display their favorite nasal rinse at Camp Leatherneck in Afghanistan.

Saving Soldiers' Sinuses

By Brent A. Senior, MD and Katie Sams, RN

"Why don't we talk to the company to find out if we can make this more than a carton—how about thousands of cartons for all of our guys and ladies over there!"

It all started with a phone call.

"My nose is stuffy and congested all the time. All of the guys are having the same thing!"

Alex Sams, newlywed husband of UNC Otolaryngology/Head and Neck Surgery nurse [Katie Chandler Sams](#) recently deployed as a Specialist with the 449th Army Engineering Company to Camp Leatherneck. Leatherneck is located in the Helmand Province in southern Afghanistan and is home to rugged terrain, high altitudes and scorching summer temperatures averaging over 100 degrees Fahrenheit. "It's been well over a hundred each day. Hopefully it will cool down soon" says Alex. In this hot, dry, and dusty climate Alex and many of our forces experience congestion, sinus drying and pain. Add on top of this the sand, seen everywhere and in everything. Alex notes, "Sometimes the moon is a dull tan color from the dust in the air."

Concerned for her husband, Katie approached [Dr. Brent Senior](#), Chief of Rhinology, Allergy, and Endoscopic Skull Base Surgery in the Department to ask whether it would be a good idea to send over a carton of NeilMed Sinus Rinse to help the Alex and his colleagues. Dr. Senior suggested,



WHERE'S MY SINUS RINSE?: NeilMed designed a special custom-camouflaged package of sinus rinse for the troops overseas.

Several emails and phone calls later, Ketan Mehta, MD, founder and CEO of NeilMed, maker of the Sinus Rinse nasal sinus saline irrigation system agreed to send up to 100 thousand units from his company to Afghanistan. "It is our pleasure for NeilMed to work with Dr. Senior and

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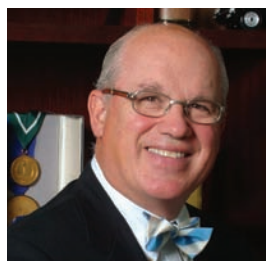


Carolina Pointe Becomes CAROLINA CROSSING

This Fall, the Department's community based clinic at Carolina Pointe further expanded its services, moving across Farrington Road into a new 6,000 square foot state-of-the-art space. The new clinic is called UNC Ear, Nose & Throat and Facial Plastic Surgery at Carolina Crossing. Our new facility offers a significantly improved patient experience with an expanded waiting area, better integration with

Audiology and Speech & Language Pathology services and the highest level of technology available in the outpatient ENT setting.

Chair's Corner



Harold C. Pillsbury, MD
Professor and Chair

It is very gratifying for us at the University of North Carolina to extend our efforts to others in a humanitarian way. Because of the wonderful relationships that Dr. Brent Senior has developed in the field of Rhinology, we have been able to facilitate a significant contribution from NeilMed Corporation to the soldiers in Afghanistan who are significantly affected by the dry air, which causes numerous problems with their airways and sinus passages. The corporation is prepared to

donate a significant amount of product to our soldiers to help prevent the significant sinus and nasal pathology that they would otherwise develop in such a dry climate such as Afghanistan. I am very proud of Brent and one of our nurses, Katie Sams, whose husband is in Afghanistan, for working out this particular donation.

Another area of great accomplishment in our department is the continued success of medical students in our research laboratories. Our students from UNC as well as from other institutions have made significant contributions to the research program at UNC and have continued in not only Otolaryngology, but in other specialties where their capacity to think clearly and creatively in the laboratory has translated into them becoming much more successful physicians in that they learn how think critically and make decisions based on the scientific method. Our entire research faculty is devoted to their success and I share their sense of pride and accomplishment in the success of our students in their laboratory work.

The Carolina Crossing clinic is now open and continues to offer clinic appointments and other outpatient services daily, Monday through Friday, as well as close and convenient free parking. In addition to General Otolaryngology, specialized clinics are available including Head & Neck Oncology, Facial Plastic Surgery, Pediatric ENT, Rhinology, Allergy & Sinus Surgery and Voice & Swallowing. Please call 919-490-3280 for appointments.

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OHNS Clinic, UNC Hospitals: (919) 966.6484
OHNS Clinic, Carolina Crossing: (919) 490.3280
Administrative Office: (919) 966.3342

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med.unc.edu/ent

Fall/Winter 2012 Heads Up is designed and edited by Nicolette DeGroot.

SINUSES *continued from cover*



LEAN FORWARD, KEEP MOUTH OPEN & GENTLY SQUEEZE BOTTLE: *Specialist Sams and Private First Class Dotson demo rinse.*

the University of North Carolina to provide this donation to our men and women in uniform serving our country" said Mehta.

With a goal to improve the nasal and sinus health of our soldiers by safely and effectively cleansing their nose and sinuses, saline irrigation aids nasal decongestion, allowing easier nasal breathing. It is washed through the nose and sinuses on a daily basis as

needed providing soothing moisture to dry and inflamed sinonasal membranes as well as physically washing out debris and pollutants including sand that lodge in the nasal and sinus passageways and may contribute to sinusitis. Saline rinsing has been shown safe and effective and may be performed as often as desired and it has been advocated by numerous medical organizations and scientific journals (including the Cochrane Review and the European

Position Paper on Sinusitis and Polyps 2012) for prevention and treatment of viral and bacterial rhinosinusitis.

And with improvement in nasal and sinus health, other areas of our soldiers' health are also improved including sleep and sleep quality, thereby affording them an improved setting in which to perform their necessary tasks.

With approval of the NeilMed company, now the only step needed was approval from the officials at Camp Leatherneck—not an easy thing as anyone who has worked with military bureaucracy can attest. But after weeks of calls, emails, and discussion with the folks in the office of North Carolina Senator Richard Burr, the email came from the Chief Medical Officer, approving the first 1000 unit shipment.

"That stuff is great! All the guys are loving it!" says Alex. "We all want to thank the people at NeilMed and Dr. Senior at the University of North Carolina for making this happen. But most of all, I want to thank my wife for caring so much!"



SOLDIER SINUS SAVERS: *Katie Sams, RN, with Drs. Brent Senior, Michael Setzen (Past American Rhinologic Society President), and Ketan C. Mehta (Current American Rhinologic Society President, and CEO & Founder of NeilMed Pharmaceuticals, Inc.).*

PLEASE CONSIDER MAKING A GIFT TO THE DEPARTMENT!



Leslie H. Nelson
Director of Development

In the present health care environment, clinical income and federal grants are no longer adequate to meet the overall mission of our Department. Additional private and corporate funds are needed to ensure our future growth. Private gifts allow us to continue making research breakthroughs that form the foundation of new and improved methods of patient care. They also make it possible for us to attract and retain the best teachers, clinicians and promising scientists to train future surgeons.

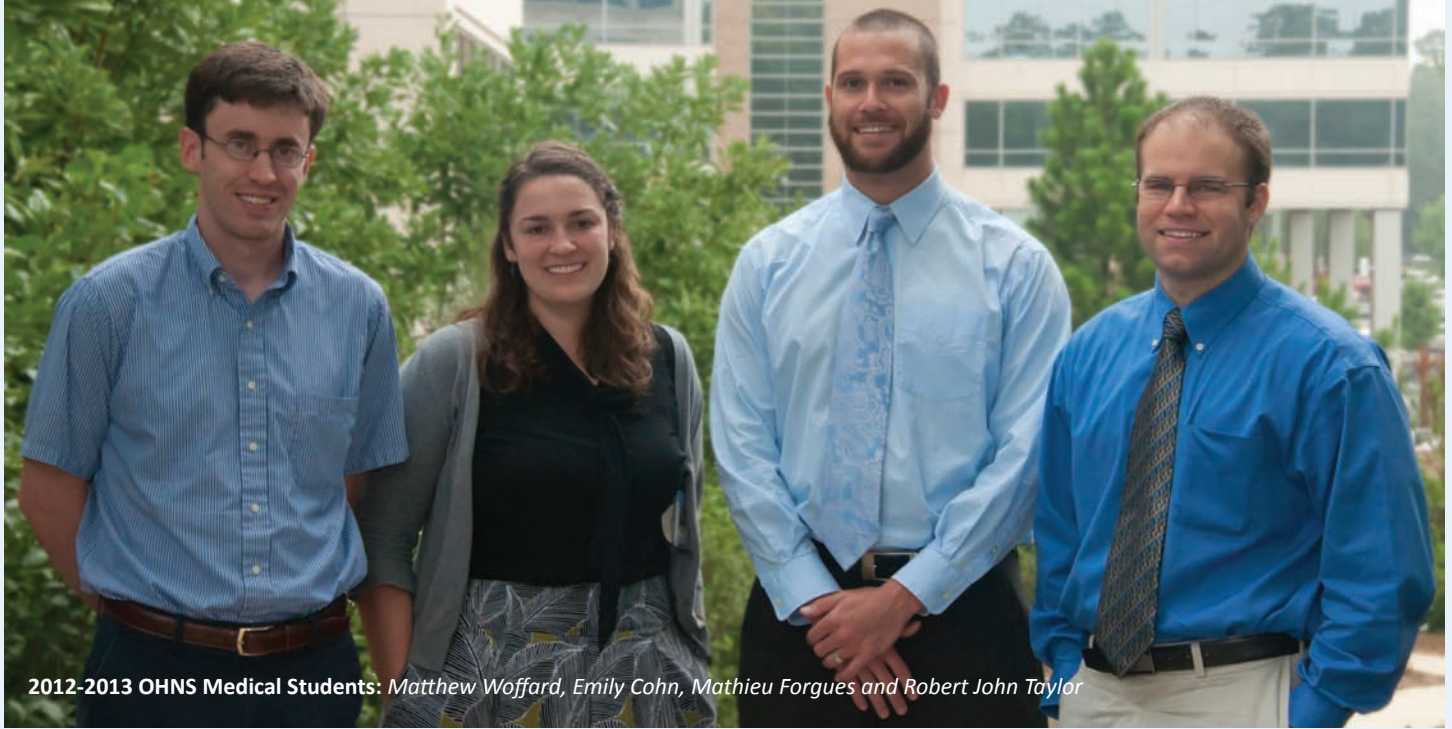
There are many giving options available to support the efforts of our Department. Please contact our Director of Development for more information on how you can help.

Leslie H. Nelson

The Medical Foundation of North Carolina

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Medical Students: VALUABLE DEPARTMENTAL ASSET



2012-2013 OHNS Medical Students: *Matthew Wofford, Emily Cohn, Mathieu Forgues and Robert John Taylor*

Matthew Wofford is on a gap year between his third and fourth years of medical school conducting research in Dr. Kimbell's lab on an NIH T32 Training Grant. His project involves studying airflow and drug particle deposition in the nasal passages and maxillary sinuses of patients with chronic sinusitis who have undergone Functional Endoscopic Surgery (FESS). This involves building 3D models of the sinus airways from CT scans and then using a separate software program to apply computational fluid dynamics (CFD) algorithms to study airflow and particle deposition. The goal of the project is to eventually help optimize surgical approaches by examining how the position and size of anastomoses impact airflow and drug deposition patterns in the sinuses. He was impressed by Dr. Kimbell's research record in the field and by the possibility of using this modeling to improve standards of care. While still undecided on his eventual path in medicine, he is excited by the opportunity to develop valuable research skills through his time working in the ENT department.

A Chapel Hill native, he was able to spend a year studying abroad in Japan before graduating from UNC Chapel Hill in 2009 with a BS in Biology. He enjoys spending his free time playing badminton, running, and reading with a good cup of coffee. More recently, he has started tutoring second year medical students and has developed side aspirations to become an accomplished baker.

Emily Cohn is a fourth-year UNC medical student who is doing a year of research in Dr. Zanation's lab as a UNC Holderness Distinguished Medical Scholar. Emily is working on various projects this year, but her main project is a randomized clinical trial using high-dose nasal steroids to treat residual olfactory

dysfunction in patients with chronic rhinosinusitis who have undergone endoscopic sinus surgery. Patients' sense of smell are evaluated with different smelling tests and quality of life surveys and correlated with data from head CT scans and nasal endoscopy. Goals of this study are to determine what factors predict improved olfaction following surgery and whether high-dose nasal steroids can rescue olfactory function. Other projects Emily is involved with include using sleep studies to determine readiness for tracheostomy tube removal in children with craniofacial anomalies and quality of life in patients with skull base tumors.

Emily grew up in Knoxville, Tennessee and graduated from UNC Gillings School of Global Public Health with a BSPH in environmental engineering and minors in biology and chemistry. In her free time, she enjoys playing with her puppy, hiking, biking, reading, and playing her banjo.

Mathieu Forgues is a fourth-year medical student who is spending the year as a Holderness Distinguished Medical Scholar doing research in the lab of Drs. Douglas Fitzpatrick and Oliver Adunka. He joined their lab due to their success mentoring medical students in recent years. He is very appreciative of the opportunity to learn about auditory physiology as part of such an exceptional research team. He plans to use the research skills learned this year to prepare for an academic career in Otolaryngology.

He is currently involved in projects such as understanding phase-locking and temporal processing in the human auditory nerve as well as investigating sound intensity discrimination. Phase-locking allows the auditory system to encode temporal

events at high rates, permitting perceptual phenomena such as pitch, sound localization, and separating signals from background noise as well as speech recognition in general. Despite its central importance to auditory processing, the phase-locking ability of the human auditory nerve remains poorly understood. In this project, ECoG measurements taken during procedures such as cochlear implantation are used to measure phase-locking in the auditory nerve of patients. The results will be compared to those of similar experiments performed on gerbils and could lead to better diagnosis and treatment of a variety of hearing disorders.

Mathieu was born in Montreal and graduated from UNC-Chapel Hill with a degree in Spanish. He is passionate about traveling and studying foreign cultures and languages. In his free time, he enjoys home improvement projects and working in his yard, grilling steaks, reading, playing basketball and participating in the UNC Judo club.

Robert Taylor is a Doris Duke Clinical Research Fellow from the University at Buffalo School of Medicine and Biomedical Sciences. His main project for this year will be evaluating the effects of

endoscopic sinus surgery on quality of life outcomes in pediatric patients. He also will be involved in several other projects such as 3-dimensional imaging of head and neck anatomy, studying minimally invasive approaches to skull base surgery, evaluating the outcomes of multidisciplinary tumor boards for head and neck surgery, and helping with any projects in the department that he can.

Before coming to the University of North Carolina, Robert has participated in several activities in addition to medical school coursework: he has performed a qualitative study of patients with diabetes living in an economically disadvantaged and culturally-diverse setting.; he has taught MCAT Biology for a leading test-preparation company; and he has pursued recreational interests like running and ultimate frisbee.

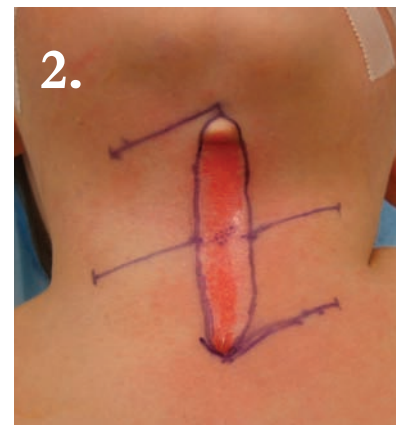
Robert looks forward to the opportunity to work at one of the premier departments in otolaryngology. By learning from many leading researchers, a diverse clinical faculty, and an outstanding resident team he will develop the skills he needs to have a significant clinical and academic impact on caring for otolaryngological patients.

Residents Gain Experience IN CORRECTION OF RARE CONGENITAL ANOMALY

One of the benefits of working at a major medical institution such as UNC, is the ability to gain some experience in the care of rare conditions. One example is an unusual congenital anomaly of the neck known as a congenital midline cervical cleft or midline cervical web. Several of our residents, along with the Pediatric Otolaryngology team have cared for a number of these children in the past few years allowing for the development of a successful surgical approach in the treatment of this rare finding.

Congenital midline cervical cleft is a rare developmental abnormality of the soft tissues of the anterior neck and upper chest characterized by a midline defect of skin, associated subcutaneous tracts or projections of excess skin and, sometimes, an underlying fibrous cord. Together these features can result in both cosmetic and functional problems, such as anterior cervical contracture. The condition is generally treated with surgical excision with the goal of removing all abnormal tissue and achieving a scar that is better oriented with the natural relaxed skin tension lines.

Recently, an otherwise healthy, one month-old baby girl presented with an undiagnosed anomaly of the anterior neck noticed by local physicians and the family immediately at birth. As they had seen and treated this problem before, the abnormality was quickly diagnosed by the Pediatric ENT team as a midline cervical cleft, and the child's family was able to reassured and an operation was planned for surgical correction after allowing a little bit of time for observation and growth. Both Drs. Jessica Smyth and Kibwei McKinney participated in the care of this young girl, along with our pediatric otolaryngology fellow Dr. James Ruda and Dr. Austin Rose. At 11 months, she successfully underwent a double-opposing Z-plasty for correction of her midline cervical cleft.



1. Newborn girl with congenital midline cervical cleft.
2. Outline of surgical plan for serial Z-plasty in the operating room.
3. Healing well four months after surgery.
4. Dr. Kibwei McKinney and his patient celebrate a successful outcome.

Newton D. Fischer SOCIETY MEETING 2012

The great tradition of the Department's Newton D. Fischer Society Meeting continued this year on Saturday, June 2nd at the Paul J. Rizzo Conference Center here in Chapel Hill. For many years, this annual meeting has served as a forum for both practical clinical updates and the presentation of newly discovered research findings, as well as a terrific opportunity for alumni of the residency program to reconnect.



NDF CO-DIRECTORS: Drs. Charles S. Ebert, Jr. and Austin S. Rose

In recent years, under the leadership of Course Co-Directors Drs. Austin S. Rose and Charles S. Ebert, Jr., the meeting has grown in to a fully CME accredited and sponsored annual meeting. This year's accompanying exhibit, newly dubbed the NC ENT EXPO featured representatives from Acclarent, Alcon, Gyrus/Olympus,

Medtronic, Stryker and the The Medical Foundation of North Carolina – the Department greatly appreciates the continued support of all the sponsors of this annual and growing meeting. This year, EXPO participants were eligible for a prize drawing of a new Apple iPad 3 –

and the lucky winner was one of our chief residents, Dr. Rose Eapen, who has since completed her training at UNC and joined the faculty in the Division of Otolaryngology – Head & Neck Surgery at Duke.

The 2012 program included a number of excellent presentations in the field of Rhinology and Skull-Base Surgery, including a keynote lecture from Dr. David Kennedy of the University of Pennsylvania on the Evolution of Skull Base Surgery. In addition to Dr. Kennedy, a number of other leaders in the field of Rhinology & Sinus Surgery spoke, including Drs. Christopher Melory and Frederick Kuhn of the Georgia Nasal & Sinus Institute, Dr. Andrew Lane of Johns Hopkins University and Dr. Subinoy Das from The Ohio State University. All of these prominent surgeons and educators participated as well, along with Drs. Charles Ebert, Brent Senior and Adam Zanation from UNC, in the well-received Rhinology and Skull-Base Panel that concluded the meeting.

The annual Newton D. Fischer Society Meeting along with the accompanying Chief Residents Banquet has really become one of the Department's most exciting annual events for our physicians, nurses, staff, families and alumni. A real surprise this year, was the unprecedented return of recent alumni to Chapel Hill for the meeting – a trend we hope will continue to grow in the coming years. In fact, Drs. Ebert & Rose have already begun planning next year's meeting, which will be held, once again at the Rizzo Conference Center here in Chapel Hill, on **Saturday, June 1st, 2013** – so save the date!

PRAZMA: The Artist

After taking care of ENT patients in Prague and after 41 years of mentoring medical students/residents

in UNC Medical School's Otolaryngology laboratories, Dr. Jiri "George" Prazma retired from UNC-CH OHNS in June 2010. But Dr. Prazma the researcher has morphed into Prazma the artist.



Drs. George Prazma and Austin Rose

Prazma, the artist, starting painting 41 years ago to channel his creative energy and has remained very busy in retirement, creating a copious collection of acrylic painting in multiple genres: *"My scientific background and medical training were expressed in my compositions and the feeling of harmony in color and symbolism based on the projection of colors and contrasts. I try to bring the observer into the picture by some known familiar motive. The color is the main instrument in the composing and creating of my pictures. It is important to me how a painting makes you feel,"* says Prazma.

The Town of Carrboro's Arts Committee personally invited Dr. Prazma to exhibit his work, where Nicolette DeGroot is on the board: *"The first word that comes to mind when I see the work of Prazma is ENERGY. The rush of kinetic energy of his work recalls to me a strength that can be found in classic Abstract Expressionism. I can feel the syncopation of jazz music, anxiety, and haste clashing together in a cacophony of color and brushwork in lovely depth."*

Prazma unveiled his colorful collection on August 1, 2012 and held a reception on August 10th during the 2nd Friday Artwalk in Carrboro and Chapel Hill. He displayed 40-50 vibrant pieces, and were available for viewing and for sale. His collection was featured at two Carrboro locations, during the entire month of August: the Carrboro Century Center and the Carrboro Town Hall.

See the work of Prazma now at his website <http://goo.gl/LKjhW>



Dr. George Prazma and wife, Tamara at the August 1 exhibit.

OHNS Announcements

Dr. Adam Zanation was a visiting professor at the NYU Department of Otolaryngology Grand Rounds and Resident Didactics on Oct 3, 2012. Dr. Zanation spoke on Skull Base Surgical Outcomes, Anatomy and Diseases of the Infratemporal Fossa, and Academic Career Development.



A group of UNC Otolaryngology alumni assembled at the beginning of the Hoo to Coast relay, a 200 mile running relay from Mt Hood to the Pacific coast. Included in the photo are Krishna Patel, Dell Yarbrough, Tim Smith, David White (all completed UNC ENT residency), Meredith Holcomb (UNC Audiology graduate), and Charley Coffey (UNC Med School, research in UNC ENT).

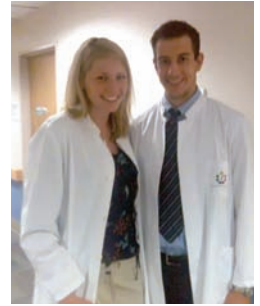
UNC residency graduates gathered at the 2012 AAO-HNSF meeting. (Pictured left to right are David White, Marc Dubin, Krishna Patel, Brian Downs, and Chris Melroy)



Dr. Carlton

Zdanski received the 2012 AAO-HNS Foundation Award. Dr. Zdanski was also recognized during the AAO-HNSF 2012 Annual Meeting in September in Washington, DC.

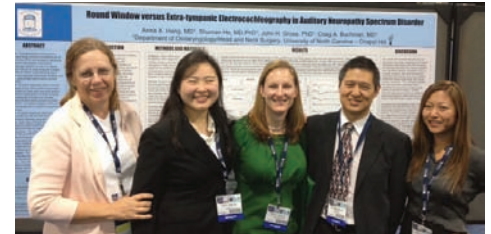
Sebastian Schweter and Carolin Wild, two medical students from the University of Essen, Duisburg Germany, visited the Department in August for an internship. "It was interesting because we were able to receive insights about American hospitals and medical training. It was a great experience for us, because there are some striking differences in Germany. At this point we want to thank you so much in the Department of ENT and especially **Dr. Oliver Adunka**."



Doug Fitzpatrick, PhD was promoted to Research Associate Professor. Dr. Fitzpatrick also received a grant: an NIH RO1, titled *Functional Architecture of Auditory Pathways from the Inferior Colliculus to Auditory Cortex*, with \$250,000 per year in direct costs.

Dr. Anna Hang

presented the poster *Round Windows versus Extra-tympanic Electrocochleography in Auditory Neuropathy Spectrum Disorder* in the 2012 American Academy of Otolaryngology-Head and Neck Surgery meeting. (Pictured left to right are Drs. Amelia F. Drake, Anna Hang, Jessica K. Smyth, Yu-Tung Wong and Grace Kim)



Dr. Grace Kim was awarded the 2012 Clinical/Translational Developmental Research Award by the UNC Lineberger Comprehensive Cancer Center (\$40,000) for her study on *The Role of Myeloid-Derived Suppressor Cells in Head and Neck Cancer*. **ONLINE EXTRAS:** go.unc.edu/q5PAs

Animal KINGDOM

Dr. Harold Pillsbury bought two Bernese Mountain Dogs from Renate Buie, a breeder in Lawrenceville, Ga. Buie later called Pillsbury about Henry, who had a cleft lip, what most breeders consider a defect. "They were going to put him aside and let him die," said Pillsbury.

To save his life, Pillsbury and Buie contacted Dr. John van Aalst, from the UNC Division of Plastic and Reconstructive Surgery, to assist in a cleft lip surgery for Henry. Van Aalst contacted the NCSU College of Veterinary Medicine for assistance.

The surgery proved to be a success. Henry's face improved after the millard flap procedure, which is commonly used in cleft lip repair for humans, was employed in his surgery.



ONLINE EXTRAS:
go.unc.edu/s5YPp

Thomas, a seven year old male lion favorite to touring crowds at the Caswell County Conservators' Center, was sedated and checked out on August 16, 2012 by UNC ENT **Drs. Harold Pillsbury, Brent Senior, Cristine Klatt-Cromwell, Adam Campbell, Grace Kim, and Gita Matajadan**, and Alamance ENT **Dr. Madison Clark**. It was determined that Thomas had a middle ear infection and would be prescribed antibiotics to treat the infection. (Photos by Abbie Cooke of Chariot Creative)

ONLINE EXTRAS: go.unc.edu/q4M8A



Faculty member **Dr. Andrea Jarchow-Garcia** and husband, Ryan, welcomed a baby boy, Clayton, October 4

Accounting Manager **Kelly Hair** and husband, Nathan, welcomed a baby girl, Kendall, July 27

VISITING PROFESSOR SCHEDULE

Nov 13-14: **Jeffrey Myers, MD**
MD Anderson
Nov 20-21: **Maroun Semaan, MD**
Case Western - Cleveland
Nov 27-28: **Frank Lin, MD**
Johns Hopkins

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