

Temple Head & Neck Institute

MESSAGE FROM THE CHAIR



A Story of Growth

Temple’s Department of Otolaryngology—Head and Neck Surgery has undergone meteoric growth in recent years. Most notable is the creation of the Temple Head & Neck Institute, which has brought together ENT services and physicians from across Temple Health and combined them into a single, comprehensive program.

The energy being created by the Institute is palpable. The number of faculty members has tripled and more are on their way. Research production is strong with more than 180 publications over the past two years and two NIH-funded researchers. Our residency program will soon expand from 10 residents to 13. And our clinical reach is greater than ever thanks to new regional offices.

Through this newsletter, we will keep you updated on all of the exciting developments within the Institute. I hope you enjoy this first issue, and I invite you to contact me anytime, come in for a visit and connect with the Temple Head & Neck Institute.

JOHN H. KROUSE, MD, PHD, MBA
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Complex Surgeries Common at Temple Head & Neck Institute

Patients from throughout the Philadelphia region and beyond are discovering the advanced capabilities at the Temple Head & Neck Institute. Thanks to added faculty members, the Institute now offers procedures that range from the most common to the most complex, including intracranial procedures with an endoscopic approach.

“We now have a full cohort of fellowship-trained surgeons who represent the breadth of our specialty, from head and neck cancer surgeons, to neurotologists, to rhinologists and laryngologists,” says John H. Krouse, MD, PhD, MBA, Professor and Chair of Otolaryngology—Head and Neck Surgery at the Lewis Katz School of Medicine at Temple University and Director of the Temple Head & Neck Institute.

Some of the most complex procedures being performed at the Head & Neck Institute are offered by Pamela Roehm, MD, PhD, Associate Professor of Otolaryngology—Head and Neck Surgery and Director of Otolaryngology and Neurotology for the Institute. Dr. Roehm often partners with Temple neurosurgeons Kadir Erkmen, MD, and Michael Weaver, MD, to operate on patients with issues involving the lateral and anterior skull base.

“We are using minimally invasive techniques, including endoscopic visualization as much as possible,” says Dr. Roehm. “We treat the full range of anterior skull base tumors and pathology, including pituitary adenomas, craniopharyngeomas, meningiomas, Rathke’s pouch cysts, chordomas, rare tumors of the anterior skull base, and anterior cerebrospinal fluid leaks using minimally invasive, endoscopic, intranasal techniques.”

Agnes McFadden is an example of the type of patient Temple is helping. In recent years, McFadden began experiencing progressive hearing loss. She also had fluid leaking out of her right ear. A local ENT physician diagnosed her with an ear infection but multiple rounds of antibiotics and drainage tubes made no difference.

“My doctor eventually recommended I see Dr. Roehm at Temple,” says the 70-year-old McFadden.

At Temple, Dr. Roehm quickly diagnosed McFadden with a cerebrospinal fluid leak. Together with Dr. Erkmen, she performed a middle fossa craniotomy to repair the leak and a simultaneous tympanomastoidectomy, a procedure to clear a chronic infectious process of the middle ear and mastoid space. McFadden says the results were nearly instantaneous.

“The leaking stopped right away and my hearing improved incredibly...it was like a miracle,” she says.

“These types of innovative approaches provide our patients with the most current and cutting-edge care available,” says Dr. Krouse. “We are fortunate to have talented and dedicated surgeons like Dr. Roehm who can provide excellent medical treatments with compassionate patient care.”



Dr. Pamela Roehm

Head and Neck Faculty more than Triples

If the Temple Head & Neck Institute was a Silicon Valley tech company, it might be described as being in “aggressive growth mode.” That’s because Temple Health leadership greenlit the significant expansion of Temple’s head and neck faculty in recent years. The result has been nothing short of transformational.

“We had many needs to fill when I arrived at Temple in 2009,” says John H. Krouse, MD, PhD, MBA, Professor and Chair of Otolaryngology—Head and Neck Surgery, and Director of the Temple Head & Neck Institute. “At the time, we only had two pediatric otolaryngologists, and three full-time and two part-time adult generalists.”

Missing from the mix, says Dr. Krouse, was a host of specialties, including head and neck cancer, rhinology, laryngology, and allergy and nasal

disease. The first hire was a fellowship-trained head and neck cancer specialist, Jeffrey Liu, MD.

“We then proceeded to add a fellowship-trained laryngologist, an allergist, an otologist/neurotologist, and a rhinologist,” says Dr. Krouse. “We’re now in the position where we can help patients with even the most complex conditions.”

When the Temple Head & Neck Institute was formed in 2015, physicians from Fox Chase Cancer Center were folded into the mix, including two head and neck cancer surgeons, J. Andrew (Drew) Ridge, MD, PhD and Miriam Lango, MD. The addition of the Fox Chase physicians brought world-class speech and language pathology services, access to clinical trials in head and neck cancer, and a coordinated, multi-disciplinary approach to the management of patients with head and neck malignancies.

In addition to physicians, the Institute has also added five full-time audiologists since 2010. Previously, Temple used a third-party contractor for the majority of these services. Today, these faculty audiologists provide thousands of patients each year with testing and treatment options for hearing problems, including technologically advanced hearing aids and custom-molded ear plugs to help prevent noise-induced hearing loss.

“What sets us apart from other programs is we made our audiologists full faculty members and have integrated them into the medical team,” says Dr. Krouse. “As Temple University faculty members, they not only deliver outstanding clinical care, but are involved in research and education as well. The addition of an audiology externship for four-year doctoral students in audiology is one example of how these audiologists function with full faculty roles and responsibilities.”

Rounding out the medical team is a group of six speech and language pathologists, two of whom are based at Temple University Hospital and four at Fox Chase Cancer Center. Like the audiologists, these specialists work hand-in-hand with the medical staff to evaluate and treat patients with voice, speech and swallowing disorders.

“Our plan is to grow as the demand grows,” says Dr. Krouse. “For example, we’re nearing capacity with head and neck cancer so that’s an area where we’ll most likely have to add faculty. Laryngology is another area that is growing rapidly. It’s an exciting time to be part of the Temple Head & Neck Institute.”

Expansion by the Numbers

The Temple Head & Neck Institute’s added faculty members have led to sharp increases across the board in patient volume and surgical cases. The additional staff has also allowed Temple to speed access to care and offer services in an expanded number of locations.

18%

Percentage increase in surgical cases since FY14

75%

Percentage of patients scheduled within seven days

1,387

Audiology patient visits in FY16 (projected) – a 138% increase from FY12

25,386

Total patient visits in FY16 (projected)

SPOTLIGHT ON

Faculty Specialties

ALLERGY & SINUS

John H. Krouse, MD, PhD, MBA
Caitlin McLean, MD
Elina Toskala, MD, PhD

FACIAL PLASTIC & RECONSTRUCTIVE SURGERY

Oneida Arosarena, MD

HEAD & NECK CANCER

J. Andrew Ridge, MD, PhD, FACS
Miriam Lango, MD, FACS
Jeffrey Liu, MD
Christopher Fundakowski, MD

VOICE, AIRWAY & SWALLOWING

Ahmed Soliman, MD
Nausheen Jamal, MD

HEARING AND BALANCE

Natasha Pollak, MD
Pamela Roehm, MD, PhD

GENERAL OTOLARYNGOLOGY

Karl Whitley, MD

PEDIATRIC OTOLARYNGOLOGY

Glenn Isaacson, MD, FAAP, FACS



Doug Black

Temple Surgeon Restores Balance to Ninja Warrior Competitor

Doug Black Jr. describes the first sensations of the syndrome that would send him to the Temple Head & Neck Institute as “lightning down my spine.”

“I was playing guitar and singing with the band at church about two years ago, and I collapsed,” he says. “The rest of the day was pain and dizziness, and I had no idea what happened.”

An active 34-year-old, Black fought to keep his symptoms from taking over his life, including regular American Ninja Warrior training sessions at HFS Parkour Center in Philadelphia. But the next days and weeks varied. Some days he felt a little wobbly; on others, he felt like the world was upside down. He had other unusual symptoms to contend with, too.

“Before I went to Temple, I was diagnosed with hyperacusis, which is increased sensitivity to certain ranges of frequencies and volumes,” he says. “I could hear my heartbeat, my eyes move, my food digesting. My first doctor said there was nothing to be done about it and sent me on my way.”

A close call during a parkour training session convinced him to seek a second opinion.

“There was a day I climbed a seven-foot wall, and the symptoms kicked in and the

world started spinning. I aimed for the spot I was trying to hold and tore open my arm on the way down. That was my breaking point.”

Shortly after that incident, Black sought out the Temple Head & Neck Institute and worked with Pamela Roehm, MD, PhD, Associate Professor of Otolaryngology—Head and Neck Surgery and Director of Otology and Neurotology for the Institute, to get to the bottom of his symptoms.

“It was pretty obvious to me what he had, given the description of his symptoms,” Dr. Roehm says. “I ordered CT and vestibular testing to confirm the diagnosis.”

Black was relieved to finally learn what was wrong with him: superior semicircular canal dehiscence syndrome, a rare condition caused by an opening in the bone overlying the superior semicircular canal in the inner ear. He was equally relieved to learn that his syndrome could be treated with surgery.

“It was great to know that I wasn’t crazy,” he says. “To have a diagnosis, finally, and be able to go into surgery and get it taken care of was really freeing.”

Dr. Roehm performed a keyhole middle fossa craniotomy with an endoscopically visualized repair of the superior semicircular canal. Black says he noticed a decrease in

QUALITY CORNER

Prompt access to outpatient care is a key part of Temple’s commitment to provide the highest quality healthcare. The Temple Head & Neck Institute’s policy is to offer same or next business day appointments to all patients. Timely access to multidisciplinary care is even more critical for patients with head and neck cancer whose complex treatment is usually managed by a team of highly specialized physicians. Consider the following statistics from 2015:

56%

of Temple Head & Neck Institute patients seen at Fox Chase Cancer Center had multidisciplinary appointments **on the same day** as their first visit.

81%

of patients had their multidisciplinary appointments **in the same week** as their first appointment.

100%

of new patients were seen by a radiation oncologist and/or medical oncologist **prior to undergoing surgery** for their head and neck cancer.

symptoms quickly after surgery and continued to improve over the coming weeks.

“It took a month and a half after surgery to get back to Ninja Warrior classes, but everything’s back to normal now and I have no symptoms,” he says. “The doctors at Temple gave me my life back, plain and simple.”

Alumni News: Temple Resident Alum Only Fellowship-Trained Rhinologist in Maine

When Jeffrey Bedrosian, MD, reflects on his time as a resident in Temple University Hospital's Department of Otolaryngology—Head and Neck Surgery, one thing that stands out in his mind is high-quality teaching.

"I remain a great admirer of the faculty that I worked with," he says. "Their integrity



Dr. Jeffrey Bedrosian

made a big difference in how I view my own professionalism, my skills, my judgment. Nobody at Temple is cavalier in their practice—there was always a lot of thoughtfulness, which is so important."

Dr. Bedrosian completed his internship and residency at Temple from 2006-2011. In that time, he was the first resident to complete an otology/neurotology rotation at Pittsburgh's Allegheny General Hospital.

"That concentrated ear rotation was certainly the highlight of my chief year," Dr. Bedrosian says. "I appreciated the opportunity to extend my training with that rotation, and I'm glad to see that it's become a lasting part of the program."

Since he graduated from Temple, Dr. Bedrosian has watched Temple's program grow in many ways.

"The department is a lot bigger now than it was when I graduated, which is very heartening and exciting," he says. "The program draws really good residents who will do good research, which has really built out the program even in the time since I was there."

"I remain a great admirer of the faculty... Their integrity made a big difference in how I view my own professionalism."

DR. JEFFREY BEDROSIAN

Now affiliated with Maine Medical Center and Southern Maine Medical Center in Portland, Maine, Dr. Bedrosian has remained connected to the Temple residency program to this day, including attending graduation

ceremonies and keeping up with colleagues at national meetings.

"Dr. Bedrosian is the only fellowship-trained rhinologist in the state of Maine," says Department Chair John H. Krouse, MD, PhD, MBA. "He's a superb surgeon and great with patients, which is why people come from all over the state and out of state to see him. This is no surprise—he was a truly outstanding resident."

An Expanding Clinical Reach

With five locations, the Temple Head & Neck Institute is convenient for patients from throughout the Philadelphia region.



Dr. Oneida A. Arosarena

NIH-supported Research Targets Oral Cancer Bone Invasion

Oneida A. Arosarena, MD, FACS, is conducting research that may someday lead both to a saliva test to diagnose the presence or absence of oral cancer and to therapies that could suppress a protein that drives the rather unique process in which oral cavity squamous cell carcinoma (OSCC) invades adjacent jaw bones.

This bone invasion occurs by direct extension, rather than via metastasis through the blood stream into bone marrow—the pattern often followed in other common cancers.

Dr. Arosarena's initial results were first published in the online version of the *Journal of Cellular Physiology* on Feb. 8. She is the principal investigator; four of her six collaborators are also from Temple.

“The OSCC recruits monocytes, which are undifferentiated immune cells, and then differentiates these monocytes into osteoclasts that chew away at the bone and allow the cancer cells to invade the jaw bone,” explains Dr. Arosarena, an Associate Professor of Otolaryngology–Head and Neck Surgery.

Dr. Arosarena's research, which was funded by the NIH-National Cancer Institute, is targeting osteoactivin, a protein whose increased presence has been linked to both bone invasion and metastasis in several other malignancies, including breast carcinomas, malignant melanoma and squamous cell lung carcinoma. Osteoactivin's role was first characterized by Fayez Safidi, PhD, a former Temple colleague with whom Dr. Arosarena has collaborated.

Dr. Arosarena has confirmed that osteoactivin is more prevalent in OSCC cells and promotes tumor cell migration directly into bone. “In comparing OSCC carcinoma tissue to nonmalignant oral keratinocyte cell lines, we found that this protein was overexpressed in all of the carcinomas,” she says.

Her research has also demonstrated that inhibiting a particular integrin adhesion molecule stops cells from migrating in the presence of osteoactivin. To further validate her findings, she plans to conduct animal model studies, as well as review human tissue samples to see if the expression of osteoactivin correlates with tumor aggressiveness and survival rates.

SAVE THE DATE

2016 Temple Head & Neck Alumni Weekend and Resident Graduation

FRIDAY, JUNE 10

Keynote Lecture and Reception
Gregory Randolph, MD
Massachusetts Eye and Ear Infirmary

Medical Education Research Building,
Room 119D

Cocktail reception to follow in lobby.

SATURDAY, JUNE 11

Resident Graduation Dinner

Chubb Hotel & Conference Center
Lafayette Hill, PA

For more details about this event and to RSVP, visit alumni.temple.edu/0to2016.

Temple University Department of Otolaryngology Alumni Reception

MONDAY, SEPTEMBER 19

6:15 - 8:15 PM

Morton's: The Steakhouse
285 J Street
San Diego, CA

This event is being held during the AAO-HNSF Annual Meeting & OTO EXPO.

For more information or to RSVP, contact Melissa Reilly at Melissa.Reilly@temple.edu.

\$1.8 Million ACS Grant Funds Investigation of Head-and-Neck Cancer Racial Disparities

Jeffrey Chang-Jen Liu, MD, Director of Head and Neck Oncologic Surgery at Temple University Hospital and Assistant Professor of Otolaryngology—Head and Neck Surgery at the Lewis Katz School of Medicine at Temple University, is one of three Temple researchers investigating whether genetic differences are causing a disproportionate percentage of African Americans to both develop and die from head and neck cancers. Focusing on head and neck squamous cell carcinoma (HNSCC), the research is being funded by a five-year, \$1.8 million American Cancer Society grant that runs through 2019.

“No researchers have investigated the impact of genetic code variations for African-derived populations.”

**DR. JEFFREY
CHANG-JEN LIU**

Compared to whites, the incidence of oral cavity and pharynx cancer is slightly higher among blacks, and almost two-fold higher for larynx cancer. Black patients also have notably lower five-year survival rates.

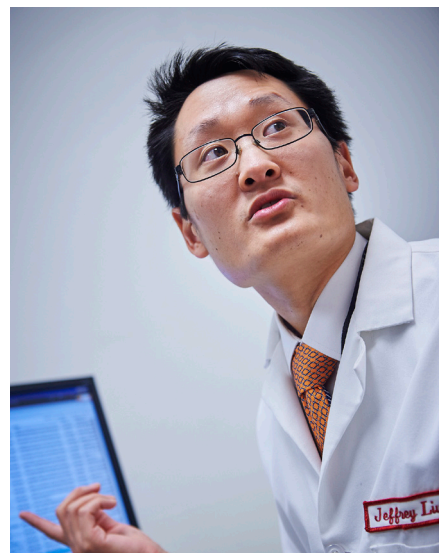
“Some studies

have suggested these disparities may be related to late-stage diagnoses attributable to care barriers and lower screening rates,” notes Dr. Liu, the Chair-elect of the Young Physicians Section of the American Academy of Otolaryngology—Head and Neck Surgery. “But after adjusting for such factors as socioeconomic and insurance status, as well as tobacco and alcohol use, there is still a disparity.”

“And although genetic variants have been investigated in populations of European and Asian ancestries, no researchers have investigated the impact of genetic code variations for African-derived populations.”

Specifically, the researchers are collecting blood, saliva and urine samples from patients to analyze both DNA and tobacco usage. They want to determine if the genes associated with how the body manages tobacco and its related carcinogens differ between whites and blacks.

Dr. Liu, who is also an attending surgeon in head and neck oncology at Fox Chase Cancer Center, is collaborating with the study’s principal investigator, Camille Ragin, PhD, MPH, an Associate Professor at Fox Chase and the Lewis Katz School of



Dr. Jeffrey Chang-Jen Liu

Medicine, as well as Rob Kulathinal, PhD, Assistant Professor of Biology at Temple’s College of Science and Technology.

They anticipate that their findings will help improve early detection and cancer prevention interventions, and also might lead to new treatment protocols.

In a related pilot study funded by Fox Chase, Dr. Liu is also investigating if the DNA in damaged genes among HNSCC patients differs between blacks and whites.



Temple ENT through the Eyes of a Resident

In her four years as an ENT resident at Temple University Hospital, Rachel Georgopoulos, MD, has seen tremendous growth in the Department of Otolaryngology—Head and Neck Surgery, including the creation of the Temple Head & Neck Institute in 2015.

“This growth has been great for residents...I’ve had a very enriching experience,” Dr. Georgopoulos says. “Between my time at Temple and Fox Chase Cancer Center, I get to see very advanced pathology as well as a wide variety of patients, which has been great from a learning perspective.”

Dr. Georgopoulos’ first experience with Temple University Hospital came when she was a medical student at Stony Brook University School of Medicine. An attending there who knew of her interest in ENT recommended she do a rotation at Temple.

Once here, she was drawn to the attending physicians with whom she worked, including Department Chair John H. Krouse, MD, PhD, MBA.

“Dr. Krouse was really growing the department and he seemed like a good residency director,” she says. “I knew this program was moving in the right direction.”

After four years at Temple, Dr. Georgopoulos says she appreciates many things about the residency program.

“I’ve received a very strong clinical experience at Temple,” says Dr. Georgopoulos, who plans to pursue a pediatric otolaryngology fellowship after her residency. “Even though the ENT program has become larger, you still have that small residency feel. You’re not a number here and the faculty really gets to know you well.”

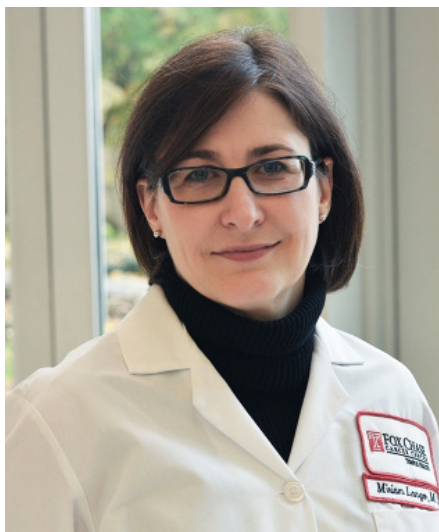
Uptick in HPV-Caused Oral Cancers Prompts Novel Treatments

More than a decade ago, physicians at Fox Chase Cancer Center noticed a group of oropharynx cancer patients that didn't resemble the people they were used to treating. Though their tumors resembled those seen in smokers, many of them had never smoked—a risk factor strongly associated with cancers of the back of the tongue or tonsil.

These patients also tested positive for human papilloma virus (HPV), a fact that turned out not to be a coincidence. After years of study, it became clear that HPV was actually causing the head and neck cancer among this growing subpopulation, which has since spurred changes to how this type of cancer is prevented and treated.

"Oropharynx cancers caused by HPV are becoming far more common," says Miriam Lango, MD, FACS, an attending physician at Fox Chase Cancer Center and Associate Professor of Otolaryngology—Head and Neck Surgery at the Lewis Katz School of Medicine at Temple University. "We believe the increased incidence is related to changing sexual practices that led to oral sex becoming a routine part of sexual contact between individuals."

Though the HPV vaccine is effective in preventing infection, many people may not know they are infected and will pass the virus on to others.



Dr. Miriam Lango

"Most people with a history of HPV never knew they had an infection, so they don't believe they will develop head and neck cancer. The HPV vaccine is underutilized because of this," Dr. Lango says. "This is unfortunate because 80 to 90 percent of sexually active individuals are infected with HPV during their lifetime."

Though not everyone infected with HPV will develop head and neck cancer, those who do are increasingly turning to new treatments to combat the disease. Some patients are good candidates for transoral robotic surgery (TORS), an effective, minimally invasive method to remove a cancer through the mouth.

"Most HPV-related cancers are located far back in the throat, making them difficult to remove safely," Dr. Lango says. "The robotic system allows us to better visualize and remove the cancer with little long-term collateral damage to surrounding tissue."

But not all cancers can be removed with TORS—some are too large, while others have spread to lymph nodes in the neck. These patients require alternative treatments, such as a neck dissection to remove cancerous lymph nodes. Other novel treatments include improvements in targeting of radiation and immunotherapy, which are under active investigation.

"The goal is to develop treatments that have far fewer long-term side effects and cure rates equal or better to what we are achieving with standard treatments," Dr. Lango says. "Fox Chase Cancer Center investigators have been involved in designing novel treatments for HPV-related oropharynx cancer. Many of these trials are being tested in national studies."

Dr. Lango adds that although treatment is only getting better and survival rates are improving, most people who develop head and neck cancer because of HPV infection often live with severe side effects for the rest of their lives.

"Unfortunately, the lives of people with oropharynx cancer are never the same," she says. "That's why the research and novel treatments under study at Fox Chase are so crucial. With new treatments, we may be able to reduce the devastation caused by these prevalent cancers and improve the quality of life of our head and neck cancer patients."

RESEARCH

Over the past year, faculty and residents within the Temple Head & Neck Institute published **86 peer-reviewed journal articles and book chapters** and delivered **66 presentations** at state, regional, national and international meetings.

"A robust research program not only means we are advancing the field but also offering our patients new therapies that they may not find at most hospitals," says John H. Krouse, MD, PhD, MBA, Director of the Temple Head & Neck Institute. The following are a select list of publications:

1. Chan NJ, **Soliman AM**. Angiotensin converting enzyme inhibitor-related angioedema: onset, presentation, and management. *Ann Otol Rhinol Laryngol* 2015;124:89-96.
2. Chera BS, Eisbruch A, Murphy BA, **Ridge JA**, Gavin P, Reeve BB, Bruner DW, Movsas B. Recommended patient-reported core set of symptoms to measure in head and neck cancer treatment trials. *J Natl Cancer Inst* 2014;106(7).
3. Cracchiolo J, **Ridge JA**, Egleston B, **Lango M**. Practice arrangements and Medicare physician payment in otolaryngology. *Otolaryngol Head Neck Surg* 2015;152:979-87.
4. Durstenfeld AL, Aneja A, **Liu JC**, Durra H, **Roehm PC**. Facial nerve invasion by basal cell carcinoma. *Otol Neurotol* 2014;35:e121-2.
5. Fakhry C, Zhang Q, Nguyen-Tan PF, Rosenthal D, El-Naggar A, Garden AS, Soulieres D, Trotti A, Avizonis V, **Ridge JA**, Harris J, Le QT, Gillison M. Human papillomavirus and overall survival after progression of oropharyngeal squamous cell carcinoma. *J Clin Oncol* 2014;32:3365-73.
6. Fritz M, **Roehm PC**, Bannan M, Lalwani A. Extracellular and intracellular melanin in inflammatory middle ear disease. *Laryngoscope* 2014;124:3241-4.
7. **Isaacson G**. Framework for advancing otolaryngology—head and neck surgery in Ethiopia. *Otolaryngol Head Neck Surg* 2014;151:634-7.
8. **Krouse JH**. Balancing evidence, innovation, and regulation. *Otolaryngol Head Neck Surg* 2015;152:579-80.
9. **Lango MN**, Egleston B, Fang C, Burtness B, Galloway T, **Liu JC**, Mehra R, **Ebersole B**, **Moran K**, **Ridge JA**. Baseline health perceptions, dysphagia, and survival in patients with head and neck cancer. *Cancer* 2014;120:840-7.
10. Linkov G, Cracchiolo J, Fielding AF, **Liu JC**. Facial nerve function preservation with vacuum-assisted closure. *J Craniofac Surg* 2014;25:1560-1.
11. Norman ZI, Cracchiolo JR, Allen SH, **Soliman AM**. Auricular reconstruction after human bite amputation using the Baudet technique. *Ann Otol Rhinol Laryngol* 2015;124:45-8.
12. Westman M, Stjärne P, Bergström A, Kull I, **Toskala E**, Cardell LO, Wickman M, Holmström M. Chronic rhinosinusitis is rare but bothersome in adolescents from a Swedish population-based cohort. *J Allergy Clin Immunol* 2015;136:512-4.

Temple Health refers to the health, education and research activities carried out by the affiliates of Temple University Health System (TUHS) and by the Lewis Katz School of Medicine at Temple University. TUHS neither provides nor controls the provision of health care. All health care is provided by its member organizations or independent health care providers affiliated with TUHS member organizations. Each TUHS member organization is owned and operated pursuant to its governing documents.

Funding Residents' Research

Research funding doesn't always have to come in the form of multi-million grants from the National Institutes of Health or private industry. Consider the example of Mursalin Anis, MD, PhD.

Dr. Anis is a former Temple ENT resident who is now in private practice in New Jersey. While at Temple, he worked with Ahmed Soliman, MD, Professor of Otolaryngology—Head and Neck Surgery, on a pilot project that examined the genetics of tracheal stenosis.

Motivated by the need for earlier detection of affected patients, as well as the drive to classify individuals at increased risk, they sought to investigate genetic markers that would identify susceptible patients. They found that there are specific genetic abnormalities present in individuals that make the development of tracheal stenosis more common, even with minimal initial injury.

Funding for Dr. Anis's research came from Temple's Chevalier Jackson Society, a group formed in 2013 that provides a giving mechanism to fund resident research. Many of the donations made through this society are from current faculty members and alumni.

"A department with funds can seed exploratory research, give us flexibility and enhance our residents' experience," says John H. Krouse, MD, PhD, MBA, Director of the Temple Head & Neck Institute.



Dr. Mursalin Anis (left) and Dr. Ahmed Soliman

Supporting the Temple Head & Neck Institute

Gifts to support the Temple Head & Neck Institute directly impact our faculty, residents, staff and patients. You may make your tax-deductible gifts in support of the Institute by returning the enclosed envelope, or online at giving.templehealth.org.