


# Carolina DREAMING

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Course • Update in Anesthesiology,  
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## NIMH Study First of Its Kind *Dr. Samuel McLean provides better understanding of biology underlying post-traumatic disorders*



**Left:** UNC Anesthesiology AURORA study investigators Drs. Sarah Linnstaedt (L) & Sam McLean (R). **Right:** From L to R: Rebecca Price (Lead Research Coordinator), Sarah Linnstaedt (Co-Investigator), April Soward (Research Program Manager), Samuel McLean (AURORA P.I.), Khartik Bhatt (Research Program Manager), Aditi Borde (Research Coordinator), Jessica Stanek (Lead Research Coordinator).

Vice Chair for Anesthesiology Research, Dr. Samuel McLean, is a leading pain researcher specializing in the underlying mechanisms of pain in the aftermath of trauma. For over a decade, his research has provided the pain medicine community a better understanding of the broad-based pathophysiology linked to the body's response to injury, as well as the adverse effects of trauma that vary across patients.

In direct response to President Barack Obama's 2012 executive order calling for investments in research to better understand and treat post-traumatic stress conditions, McLean is leading a first-of-its-kind, National Institute of Mental Health (NIMH)-funded study launched in September 2016. Over five years, McLean's \$21 million study ("AURORA") brings together 40+ scientists across 19 institutions to examine the mechanisms underlying development of neurologic and mental health disorders that occur in the wake of trauma.

**"We want to be patient-centered, not diagnosis-centered. We believe that only by looking at an individual globally can we achieve great advances in treatment."** — Dr. Samuel McLean

UNC is serving as a data-coordinating center for the 12 recruiting emergency departments that will be enrolling patients in the immediate aftermath of trauma. Study participants will undergo initial baseline evaluation via blood collection, psychophysiology, neurocognitive tests, and questionnaires. Once discharged, participants will be followed for a year after their trauma. Participants will be monitored via wrist-wearable and smart phone app continuously measuring daytime physiology, sleep, subject location (GPS), and intermittent surveys administered via phone app. Participants also complete web-based neurocognitive tests, serial saliva collection, and follow-up questionnaires. Additionally, a subset of the cohort will undergo a deep phenotyping evaluation including a functional MRI, pain assessments, and psychophysiology.

At the study's conclusion, the goal is to produce a comprehensive assessment of biologic data markers (eg, genomic, physiologic, neurocognitive, behavioral) that leverages development of tools that aid healthcare providers in identifying risk for post-traumatic stress and implementing post-traumatic follow-up care in both the military and civilian communities.

## CME

### Daylong Meetings Upheld by Year-Round Planning

**Y**ear-round, the Department hosts/co-hosts four meetings to fulfill Continuing Medical Education (CME) and Continuing Education (CE) credit requirements for anesthesiologists and CRNAs from both UNC and peer institutions. It takes the collective efforts of a cross-section of Department members to organize and pull off the didactic mission of these four meetings, which include:

- **3rd Annual CRNA Anesthesia Meeting**  
Organizers: Amanda Greer (CRNA), Lynn Craven
- **30th Annual Carolina Refresher Course: “Update in Anesthesiology, Pain & Critical Care Medicine”**  
Organizers: Drs. David Hardman & Nate Painter, Lynn Craven
- **10th Annual UNC / Duke / Wake Forest Pediatric Anesthesiology Conference**  
Organizers: Drs. Concetta Lupa & Peggy McNaull, Lynn Craven
- **Pain Management Updates for the Primary Care Provider**  
Organizers: Drs. Bobby Wunnava & Justin Rountree, Lynn Craven

CME and Administrative Support Manager Lynn Craven plays a key role in preparing for and facilitating each of the Department’s four hosted/co-hosted annual meetings. Given the significant, year-round scope of responsibility, Craven has to balance the non-meeting-related duties of her position with work tied to stages of meeting planning. For the Carolina Refresher Course, planning begins over a year in advance for Craven, Hardman and Painter. Registration for 2018 opens the first day of the 2017 conference, meaning soon thereafter the three will begin working on 2019 speaker and topic selection pulling feedback from 2017 conference evaluations.



**“These meetings are a big piece of my job and require a lot of advance preparation – planning for three of them starts eight months in advance.”** – Lynn Craven

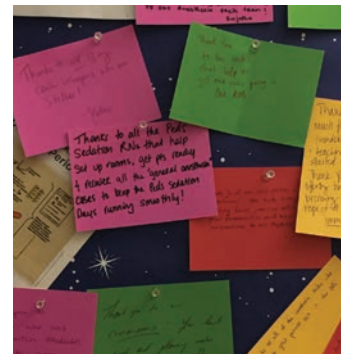
“The application process for CME and/or Continuing Education (CE) credits is very comprehensive. Guidelines mandated by the ACCME, NCMS, and AANA must be followed to ensure physicians and CRNAs maintain their certification with enough CME or CE Credits. We partner with Area Health Education Centers (AHEC) to ensure each attendee receives the appropriate credit. Since conferences rely heavily on vendor support, planning time must also be dedicated to build relationships with area pharmaceutical, financial and equipment vendors who exhibit. We want to ensure our attendees have a solid visual overview of vendors’ available products and services that are available to them on a personal or institutional level.”

## Well Worth It

### First Wellness Week a Hit Department-Wide!



**Left:** Dr. Lavinia Kolarczyk’s enthusiastic “Type A” group yoga Twitter post; **Right:** Department-wide “Thank-You Gram” post-its



**S**ince its June 2015 founding, the Department’s Wellness Committee has hosted an abundance of activities emphasizing “wellness for all.” Amongst them, “Wellness Wednesday” guest-lectured Grand Rounds were established, as well as retreats for each residency class to foster comradery. As plans for two to three 2017 wellness events evolve, the Committee’s success in hosting its first “Wellness Week” in October 2016 upheld its ongoing mission of promoting wellness department-wide via a slate of all-inclusive activities.

Some of Wellness Week’s seven days of activities reminded that wellness is a personal experience. A department-wide, daily email aimed at stimulating individual self-awareness of mind-body health and wellness (“Daily Pearls of Wisdom”). Another exercise promoted self-affirmation through affirming others, where Department members could pen a thank-you note recognizing a workplace colleague (“Thank-You Gram”).

Other events emphasized body health via group-oriented participation. Adopting the State of North Carolina’s team-focused employee walking initiative, Wellness Week’s seven-day “Miles for Wellness Challenge” encouraged Department members to bond over logging individual physical activity as a registered group. At a local CrossFit gym, Department members toughed out a group fitness session together. By week’s end, a “Type A” yoga class offered breathing, movement, meditation and mindfulness techniques for maximizing the most beneficial personal responses to a high-intensity workplace, home environment and elsewhere.

For 2017, the Department’s wellness promotion extends Wellness Wednesday Grand Rounds to new topics (e.g., mindfulness-based stress reduction), and inevitably, some successes of 2016’s Wellness Week will return (e.g., Daily Pearls of Wisdom) or resurface in new form (e.g., candlelight yoga).

As wellness initiative founder and Associate Professor Dr. Susan Martinelli reflects: “The goal of Wellness Week was to bring a departmental focus to wellness for one week. Each wellness subcommittee [resident, faculty, CRNA, and staff] was responsible for organizing one event during the week. We aimed for a variety of events in order to include all members of the Department. The departmental response was overall positive. We had diversity in participation, and it was nice to observe different Department members attending the events.”

# NUMBERS AT A GLANCE\*

UNC Department of Anesthesiology



# 3703

Babies born in 2016 at UNC Hospitals

# 12

Babies born in 2016 to Department of Anesthesiology faculty



Department moms needing lactation space daily

# 10



Lactation rooms in UNC Hospitals

# 15

# 3

Anesthesiology call rooms for use by department moms for lactation



## Chairman's Note

David A. Zvara, MD  
Professor and Chair

### “To be the nation’s leading public school of medicine.”

This is UNC School of Medicine’s vision statement. It is simple and direct, but what does it mean? What role do our people play in this vision?

In this third issue of Carolina Dreaming, we read about the people and programs translating this vision into reality. On the international stage, we see CRNA Bobby Silvers and Associate Professor Dr. Janey Phelps turning medical mission participation into leading as field educators in the West Bank and Malawi, respectively. Within the US, our physicians and CRNAs boast a strong record in national committee service. Our influence in education, simulation and our national societies is impacting how we practice medicine.

Locally, our residents are among the nation’s top students. Our curriculum serves as a model for other institutions. The Academic Medicine Rotation has trained dozens of young physicians in quality and performance improvement. UNC Anesthesiology also leads in CME. Our CRNAs have hosted another successful CRNA refresher course, and our physicians provide the Carolina Refresher Course, the UNC Pediatric Meeting, the Pain Meeting, the Triangle TEE Meeting, a Liver Meeting and more. At these meetings, we host the field’s top speakers, educators and innovators. This is leading.

Education is the heart of our program. In addition to outstanding clinical education, we have the Academic Medicine rotation, CA-2 QA initiatives, Transition to Practice, CAPSEL, Wellness initiatives and OSCE innovation. Our Chief Residents also reflect on their experiences in this rich environment. Throughout training, our residents build stronger attendance numbers each year at national (ASA, IARS) and regional anesthesiology meetings. The Chiefs invite us to celebrate the pay-off of hard work in recognizing the fellowship horizons of our 2017 graduating residents.

Active research is vital to a growing and nationally leading academic department. This issue highlights Dr. Sam McLean’s collaborative NIMH study examining the biology underlying post-traumatic disorders. Dr. McLean is leading an initiative to improve lives and stimulate new educational initiatives and research questions. One of the biggest of its kind, the study’s \$21 million NIH award underscores the magnitude of Dr. McLean’s work. Nonetheless, no large award can fully sustain a proportionate research proposal. As a clinical department, we should all take great pride in our efforts to financially support our research team.

Do we really live up to being the nation’s leading public school of medicine? At UNC Anesthesiology, you bet we do.

\* As of March 2017

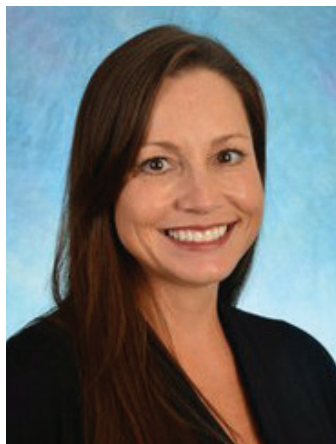
## Taking Anesthesia Care Globally

### UNC Recognizes Silvers' Decade of Anesthesia Care in West Bank



Left: CRNA Bobby Silvers; Right: Silvers & UNC Division of Plastic and Reconstructive Surgery team.

### Phelps Brings Simulation-Based Training to UNC's Project Malawi



Left: Associate Professor Janey Phelps; Right: Malawi clinical officers training in anesthesia care.

More than four years after its founding, the Department's "CRNAs on a Mission" fund has taken significant strides in advancing its mission – to provide a means to collect and distribute funds supporting expenses tied to UNC CRNA medical mission participation.

CRNAs on a Mission Secretary Bobby Silvers noted: "I would like to see the fund grow to the point that our presence and support will be felt in places when we cannot physically be there. We want to not only support the travel expenses for our CRNAs, but also purchase equipment for the underserved facilities where we've worked."

In October 2012, Silvers was named "Volunteer of the Year" by the North Carolina Medical Foundation's Furlow Fund for his long-time medical volunteerism in the West Bank. The fund sponsors all procedural costs (eg, equipment, supplies) for Palestinian children needing craniofacial corrective care. It also supports medicines, feeding bottles and training resources for teaching Palestinian practitioners.

Over 10 years, Silvers has visited the West Bank eight times, working in hospitals in Hebron, Jericho, Tulkarem, Jenin and Nablus alongside plastic surgeons from both UNC and around the U.S.

To maximize the benefit that can be provided onsite, a range of Triangle area practitioners – dentist; speech therapists; recovery room nurses; feeding specialists; and audiologists – has comprised visiting teams. Joining teams traveling semi-annually in November and May, Silvers has been integral to anesthesia care provided to Palestinian children undergoing cleft lip and palate repair. He's also been invaluable to training Palestinian anesthesia providers on clinical skills needed to independently administer care to patients.

Silvers reflects: "The [Palestinian] providers have some experience in anesthetizing children, but few of them have the background and training to deal with the particular airway concerns of patients with cleft lip and palate and associated deformities."

When Associate Professor Dr. Janey Phelps joined a UNC Project Malawi surgical team in 2014, she witnessed a School of Medicine research partnership based in capital city Lilongwe that's improving the nation's health via innovative, culturally acceptable and affordable methods.

During this first visit, Phelps collaborated with Kamuzu Central Hospital (KCH)'s anesthesia department and recognized an opportunity to improve anesthesia care in Lilongwe. Unlike other departments, KCH's anesthesia group lacked specialty-specific physicians, relying solely on Malawi-trained clinical officers. Without a UNC-KCH Anesthesia partnership, the group couldn't derive maximum benefit from Project Malawi's onsite resources. Phelps saw an opportunity for her own faculty to get involved and returned in fall 2016 to establish a simulation-based patient safety program.

"My 2014 trip sparked a desire to improve training, provide clinical care algorithms and develop an UNC international residency elective at KCH."

Using a pediatric advanced life-saving training mannequin ("MegaCode Kid") donated by manufacturer Laerdal Medical, Phelps trained 17 students via didactic lectures and hands-on simulation over two weeks. Learning advanced skills via Phelps' instruction, students applied them at KCH, as well as at Malawi's regional and private hospitals. Now a standardized program component, the donated simulator allows Phelps to focus on both continuing medical education and educating KCH's future anesthesia clinical officers.

The Department funds faculty travel to improve and sustain the UNC-KCH anesthesia program. Fundraising via alumni donations and grants will be critical to strengthening what Phelps has established, given a residency elective, research projects and other opportunities are being explored.

"No matter what country you live in, lasting change is especially challenging when you are separated by two continents. However, it's achievable using UNC's simulation-based education approach to making [KCH]'s anesthesia department our global partner."

## Congratulations To ...

*Program Coordinator Elizabeth Aguero for Receiving First 2016 A+ Award.*



From L to R: 2016 A+ Awardees Jackie Kostyla, Nathan Woody and Elizabeth Aguero

**M**uch as education individually rewards high performance, business units routinely recognize standout employees via periodically distributing an award for exceptional workplace efforts. In mid-August, Residency Program Coordinator Elizabeth Aguero was selected as the Department's first recipient of its "A+ Award," established in spring 2016. Aguero was followed by Jaclyn Kostyla and Nathan Woody in receiving this honor.

Department leaders created the A+ Award to recognize outstanding contributions of its healthcare support and administrative personnel.

In closely working with Aguero in recent years, Residency Program Vice Chair Dr. Harendra Arora noted: "I am not surprised that Elizabeth received the first A+ [Award]. Elizabeth is undoubtedly a STAR performer. She is self-driven, highly motivated and a dependable individual. When Elizabeth took over as the Program Coordinator in 2014, she insisted on keeping her previously assigned recruitment tasks which she was originally hired for in 2012. She now single-handedly manages the work of two and has not missed a single deadline. We also have the perfect chemistry. Sometimes even before I say something, she knows exactly what's coming. We are very fortunate to have her as our Program Coordinator."

### *Our Residency Program for Continued ACGME Accreditation!*

"We have robust residency and fellowship programs with innovative curricula. Our residency program, as well as all our accredited fellowship programs, recently received continued accreditation from the ACGME."

– Program Director Dr. Harendra Arora

## RESIDENT UPDATE



From L to R: Christo Frangopoulos, Tim Rohman and Michael Kazior

**W**hat a big year for UNC Anesthesiology! Our department is extremely fortunate that year in and out, its residency program attracts some of the brightest and best graduating medical students from across the country. The 2017 graduating class has successfully matched fellowship positions at a number of very prestigious institutions, including: Vanderbilt University, Seattle Children's Hospital (UW), UC-San Diego, Duke University, University of Pittsburgh, Baylor and of course, here at UNC Hospitals. Equally impressive, our graduates have diverse pursuits that range from private practice to enhancing education with Master's degrees! These successes are not only a testament to our hard-working residents, but also to our outstanding, collegial collection of educators.

The educational environment is a hallmark of our program and the cornerstone of the UNC residency experience. Beyond receiving top-tier training, residents have a plethora of opportunities to serve as teachers and work on research endeavors. This past year alone, we hosted over 30 physician rotators from other departments and over 30 medical students. Further, at the ASA 2016 Annual Meeting in Chicago, our residents had 51 presentations showcasing our work ... another record year!

An important resident and departmental initiative is our focus on wellness. Since our Wellness Committee's inception last year, we've enjoyed multiple grand rounds and guest speakers, and we've also hosted our first Wellness Week. The biggest testament to our residency's focus on wellness is perhaps the annual weekend retreat each class is afforded to foster camaraderie outside of the workplace.

In addition to showcasing a program that allows trainees to pursue their career interests, whether it's education, fellowship, research, or private practice, our residents have simply loved charming Chapel Hill. What a great place to be for residency, and we know UNC will continue to produce top-notch anesthesiologists for a long time to come. GO HEELS!

– 2016-2017 Chief Residents

## Experience Matters

**A**mongst the Department's teaching faculty, four Professors – Drs. Tony Passannante, Nancy Wilkes, Ann Bailey and David Mayer – carry 25+-year appointments dating back to the late 1980s. Several decades within one institution has afforded each years of mentorship, exposure to operational strengths and weaknesses, and increasing scopes of responsibility, all of which make this foursome invaluable to shaping the Department's mission and direction.

When Dr. Passannante shifted from serving as the Department's Chief Resident to one of its newest faculty appointees in 1991, he left behind an educational era at UNC School of Medicine that began with his mid-1980s Internal Medicine residency. Though Passannante has individually served in an range of educational and operational roles over his 25+ years on faculty, the Department's Executive Vice-Chair nonetheless treasures the ability of all UNC Anesthesiology members to solve problems through coming together.

"The Department has grown significantly, but our faculty, residents, and CRNAs treat each other with mutual respect. This makes it much easier to deliver both a high-quality educational experience for our residents, and a safe and efficient clinical environment for our patients and surgeons. In the past decade alone, we've strengthened our residency program, organized our clinical rotations and didactics better, and invested the effort to become a more sought-after department that attracts highly talented faculty applicants."

A classmate of Passannante's and same-year faculty appointee, Dr. Nancy Wilkes brought a CRNA background to UNC when she started residency. Wilkes has formed a philosophical approach to her own physician practice drawing from admirable faculty practices she's observed in one workplace over 25 years.

"In addition to being excellent teachers, the faculty who taught me and became my colleagues knew we all had a life outside of work that deserved respect and support. Each patient we care for is due that same recognition. My mentor, Dr. Ken Levin, used a technique that I employ to this day: Walmart. When I find out where a patient lives, our conversation often includes, 'You know, I think I've seen you at the Walmart there.' It's frequently a place I've never been (Ahoskie, Dunn, Rural Hall); but that's irrelevant. You'd be surprised how many affirmatives I get. Personalizing a patient is therapeutic and can make a profound difference in the perioperative experience."

Dr. Ann Bailey joins Passannante and Wilkes as third long-timer to have trained at UNC. As a mid-1980s Department resident, Bailey trained at a point when didactics were being newly incorporated alongside reading and hands-on training.

"We learned much of what we did at the bedside from the masters such as Ed Norfleet, Bob Mueller, and David Sprague, as well as upper-level residents who mostly supervised us every third to fifth night. The patient-centered learning hugely influenced me in that I love to use each patient as a learning opportunity and to use physical clues to improving anesthetic care. I think residents learn and retain when there is applicability of the material that they read in advance."

When Professor of Anesthesiology and Obstetrics and Gynecology David Mayer visited the Department as an early 1990s faculty candidate, the most clear-cut indication of the Department's strength during that visit might've come from meeting with his first two interviewers – Drs. Fred Spielman and Ed Norfleet.

"Both of them were lifelong UNC faculty who were a large part of the success of our growing department. However, once I started my career here, I realized that the department also had superb faculty members like those two all over the place. Everyone wanted each other to succeed, even though there were not formal mentor-mentee relationships. It did not matter if you had been here two months or two decades, you had people looking out for you. Sure, we are much larger and much more compartmentalized than back then, but the same collegial spirit and desire for each other to succeed is still very strong today. Sharing this journey with Tony, Ann, and Nancy has been such a pleasure."



From L to R: Drs. Tony Passannante, Nancy Wilkes, Ann Bailey & David Mayer.

## What's In A Title?... A Sign of a Leader

The Department would like to recognize six faculty members appointed in recent months to leadership roles that oversee varied areas of patient care, research and education both at the departmental and institutional levels.

**Candra Bass, MD**  
UNC School of Medicine Clinical  
Academic Resources Director

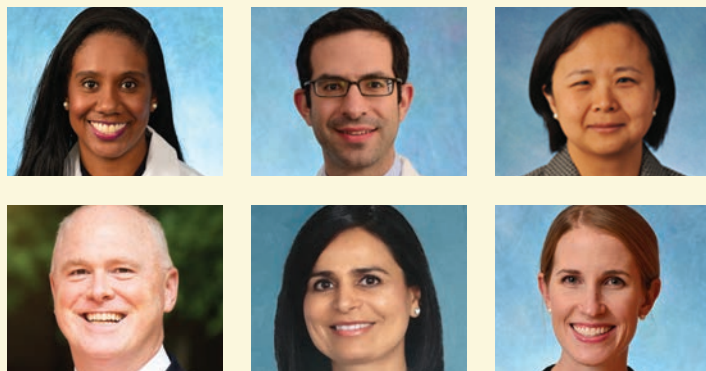
**Rob Isaak, DO**  
Assistant Program Director

**Mia Kang, MD**  
Division Chief of Neuro-  
Anesthesiology

**Sam McLean, MD, MPH**  
Director of UNC Institute for  
Trauma Recovery

**Priya Kumar, MD**  
Director of Clinical Research

**Emily Teeter, MD**  
Assistant Program Director



From L to R: Drs. Candra Bass, Rob Isaak, Mia Kang, Sam McLean, Priya Kumar & Emily Teeter

# Featured Publications, Awards & Presentations

## July to December 2016

### ABSTRACTS

**Linnstaedt SD, JunMei H, Liu AY, Soward AC, Bollen KA, Wang HE, Hendry PL, Zimny E, Lewandowski C, Velilla MA, Damiron K, Pearson C, Domeier R, Kaushik S, Feldman J, Rosenberg M, Jones J, Swor R, Rathlev N, McLean SA.** Methodology of the AA CRASH Prospective Observational Study Evaluating the Incidence and Pathogenesis of Chronic Pain and Adverse Psychological Outcomes in African Americans following Motor Vehicle Collision. *BMJ Open*. Published online 2016 Sep 5. doi: 10.1136/bmjopen-2016-012222; 6(9): e012222.

**McLean SA, Wu A, Gonzalez M, Harmon E, Zimny E, Lewandowski C, Hendry PL, Damiron K, Pearson C, Velilla MA, Swor R, Domeier R, Linnstaedt SD.** The influence of microRNA on chronic pain development after motor vehicle collision may be sex-dependent. Poster presentation at the 2016 Bi-Annual Meeting of the International Association for the Study of Pain. Yokohama, Japan. September 2016.

**Penwarden A, Chidgey B, Enarson C, Johnson L, Nanda M, Diritto D, Paduchowski B, Zvara D, Martinelli SM.** The Development of a Departmental Wellness Committee in an Academic Anesthesiology Department. International Conference on Physician Health. Boston, MA. September 2016.

**Hertz CM, Bortsov AV, Woody N.** "Predictors of Unplanned Hospital Admission in Ambulatory Surgery Patients." MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Hertz CM, MD; Smith A, CRNA.** "Laparoscopic Radical Nephrectomy in a Patient with Aortic Stenosis and Congestive Heart Failure." MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**D'Ercole F, Williams J, Toubia T, Iweala O, Kim E.** Validating Delayed Type Hypersensitivity Reaction to Sevoflurane with Pulmonary Response: case report comparing a series of three general anesthetics in the same patient. MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Krakovski J, D'Ercole F.** Perioperative Management of Pre-induction Urticarial Allergic Eruption Following Rubber Stopped Vial Exposure in a Patient with Previously Unrecognized Latex Allergy. MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Conrad N, Ross E, Lupa C.** Dexmedetomidine is Associated With More Postoperative Respiratory Events and Prolonged Recovery Time in Pediatric Patients Undergoing Adenotonsillectomy. MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Conrad N, Halweg P, Cobb B, McNaull P.** Emergency intubation in the setting of a critical airway and no venous access: anesthetic challenges and the importance of interdisciplinary communication. MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Conrad N, Pittenger S.** Neurosurgical emergency and subsequent cardiac arrest in a postoperative Fontan patient; challenges for the anesthesiologist. MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Smith KA.** "Prevention and Management of Intraoperative Awareness in High Risk Patients" (PBLD). MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Smith KA.** "Prevention and Management of the Post Dural Puncture Headache." PBLD: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Kazior M, Wang J, Stiegler M, Nguyen D, Rebel A, Isaak R.** Emergency Manuals Improve Novice Physician Performance During ICU Emergencies MCC: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Linnstaedt SD, Harmon E, Riker KD, Nyland JE, McLean SA.** Common genetic variations in ADRA2A that influence stress-induced analgesia might be mediated by microRNA-34a. Accepted Poster Presentation at the 2016 Annual American Society for Anesthesiologists Meeting. Chicago, Ill. October 2016.

**Chen F.** Delayed Video Evaluations are Effective for Assessing Milestones in a Simulated Patient Care Environment. Research Oral Abstract. Association of American Medical Colleges Annual Meeting. (Learn Serve Lead 2016) Seattle, WA. November 2016.

### MANUSCRIPTS

**Linnstaedt SD, Hu JunMei, Liu AY, Soward AC, Bollen KA, Wang HE, Hendry PL, Zimny E, Lewandowski C, Velilla MA, Damiron K, Pearson C, Domeier R, Kaushik S, Feldman J, Rosenberg M, Jones J, Swor R, Rathlev N, McLean SA.** Methodology of the AA CRASH Prospective Observational Study Evaluating the Incidence and Pathogenesis of Chronic Pain and Adverse Psychological Outcomes in African Americans following Motor Vehicle Collision. *BMJ Open*. 2016; 6(9): e012222. Published online 2016 Sep 5. doi: 10.1136/bmjopen-2016-012222

Clark A, **Smith KA**, Storey A. "Management of Opioid Dependence in Pregnancy." Society for Obstetric Anesthesiology and Perinatology (SOAP) Newsletter. September 2016. Pgs. 11-13.

**Linnstaedt SD, Riker KD, Walker MG, Nyland JE, Zimny E, Lewandowski C, Hendry PL, Damiron K, Pearson C, Velilla MA, Jones J, Swor RA, Domeier R, McLean SA.** MicroRNA-320a predicts chronic axial and widespread pain development following motor vehicle collision in a stress-dependent manner. *J Orthop Sports Phys Ther*. 2016 Oct;46(10):911-919.

**Smeltz A, Kumar PA.** Angiotensin axis blocking drugs in the perioperative period: a review. *Anesthesiology News*. (Special Edition). October 2016.

Welsby IJ, Krakow EF, Heit JA, Williams EC, Arepally GM, Bar-Yosef S, Kong DF, **Martinelli S**, Dhakal I, Liu WW, Krischer J, Ortel TL. The association of anti-platelet factor 4/heparin antibodies with early and delayed thromboembolism after cardiac surgery. *Rare Thrombotic Disorders Consortium*. *J Thromb Haemost*. 2016 Oct 7. doi: 10.1111/jth.13533. PMID: 27714919 [PubMed]

**Willie C, Chen FL.** Joyner BL, **Blasius K.** Using high-fidelity simulation for critical event training. *Med Educ*. 2016 Nov; 50(11):1161-1162. doi: 10.1111/medu.13179.

**Teeter EG, Barrick BP, Kumar PA, Haithcock BE, Karenz AR, Martinelli SM.** Anesthetic Management of a Patient With Situs Inversus for Bilateral Orthotopic Lung Transplantation. *J Cardiothorac Vasc Anesth*. 2016 Dec;30(6):1641-1644. doi: 10.1053/j.jvca.2016.01.019. Epub 2016 Jan 13.

### INVITED PRESENTATIONS

**Stiegler M, MD.** Keynote: Errors in Healthcare, Maine Medical Center Institute for Teaching Excellence. Annual Faculty Development Conference. San Diego, CA. September 2016.

**Martinelli S, MD.** (Invited Visiting Professor) "Going Beyond Great Job: Giving and Receiving Feedback." Maine Medical Center Institute for Teaching Excellence. Annual Faculty Development Conference. Portland, ME. September 2016.

**Stiegler M, MD.** Workshop: Aftermath of Adverse Events: Maine Medical Center Institute for Teaching Excellence. Annual Faculty Development Conference. Portland, ME. September 2016.

**Stiegler M, MD; Isaak R, DO.** Webinar: ACGME Milestones in Anesthesia. Society for Simulation in Healthcare. September 2016.

**Kolarczyk L, MD.** "Adventures with Alternate Anticoagulants: A Tale of Two Stories" North Carolina Society of Perfusion Annual Meeting 2016. Washington Duke Conference Center. Durham, NC. October 2016.

**Martinelli S, MD.** "Rescue TEE in the Non-Cardiac Room." American Society of Anesthesiology Basic TEE Workshop: American Society of Anesthesiology Annual Meeting. Chicago, Ill. October 2016.

**Smith K, MD.** "Preeclampsia." Society of Obstetric Anesthesiology and Perinatology. Virtual Grand Rounds. November 2016.

## Upcoming Events

For more information regarding the events listed below,  
please visit [www.med.unc.edu/anesthesiology](http://www.med.unc.edu/anesthesiology).

*March*  
**18**

**3rd Annual UNC CRNA Anesthesia Spring Meeting**  
The Blue Zone • Kenan Football Stadium  
Chapel Hill, NC

*June*  
**10**

**Resident & Fellow Graduation Ceremony**  
George Watts Hill Alumni Center  
Chapel Hill, NC

*May*  
**4-9**

- **Association of University Anesthesiologists (AUA) 64th Annual Meeting**
- **Society of Critical Care Anesthesiologists (SOCCA) 30th Annual Meeting & Critical Care Update**
- **International Anesthesia Research Society (IARS) Annual Meeting & International Science Symposium**  
Grand Hyatt Washington Hotel  
Washington, DC

*June*  
**21-24**

**30th Annual Carolina Refresher Course**  
*Update in Anesthesiology, Pain & Critical Care Medicine*  
Kiawah Island Resort  
Kiawah Island, SC

*May*  
**10**

**Resident Symposium**  
UNC School of Medicine  
Medical Biomolecular Research Building G202  
Chapel Hill, NC

*September*  
**8-10**

**North Carolina Society of Anesthesiologists Annual Meeting**  
Grove Park Inn  
Asheville, NC

*May*  
**31**

**Resident Transition to Practice Seminar**  
Rizzo Center • UNC Kenan-Flagler School of Business  
Chapel Hill, NC

*September*  
**23**

**10th Annual UNC-Duke-Wake Forest Pediatrics Anesthesiology Conference**  
William & Ida Friday Center  
Chapel Hill, NC