

# Global Health receives expansion of grant



Master educators in Kenya for training of trainers course. Photo submitted by Bantayehu Sileshi, MD.

Following the success of its ImPACT-Kenya (Improving Perioperative Anesthesia Care and Training) project in Kenya, the Department of Anesthesiology has received another grant to expand into neighboring Ethiopia. Faculty members Mark Newton, MD, and Bantayehu Sileshi, MD, are leading the project with \$376,000 in funding support from GE Foundation and ELMA Philanthropies.

Under the original four-year grant in Kijabe, Kenya, the ImPACT Africa program trained 150 Kenyan registered nurse anesthetists (KRNAs), who are now providing care in regions of Kenya where anesthesia was previously absent

*Continued on page 2*

## In this issue:

Global Health receives expansion of grant | 1

Rothman named Medical Director for Revenue Cycle | 1

Ehrenfeld elected as chair of AMA Board | 1

Chair's Message | 2

Department participates in Surgeon General visit to VUMC | 3

2018 American Society of Anesthesiologists Annual Meeting | 4

Stuart McGrane receives the Mildred T. Stahlman Award | 7

2018 Dr. James Phythyon Endowed Lectureship | 7

Battlefield acupuncture used as alternative for chronic pain | 8

2018 Annual Recognition & Awards Ceremony | 9

Department Spotlight | 10

New Department Members | 12

Recent Department Publications | 17

## Rothman named Medical Director for Revenue Cycle

*Originally published on June 14, 2018, in The Reporter*

Brian Rothman, MD, associate professor of Anesthesiology, Biomedical Informatics, and Surgery, and medical director of Perioperative Informatics, has been named to the newly created position of Medical Director for Vanderbilt University Medical Center Revenue Cycle.

In this role, Rothman will provide medical leadership for the Revenue Cycle by facilitating clinician interactions with the Revenue Cycle team in the Department of Finance to ensure patient-centered practices and the effective and efficient delivery of patients' financial care.

While hospitals and health systems are known for deliv-



ering life-saving patient care, every health care organization needs successful processes and policies to maintain financial health. Revenue cycle management is the financial process employed by health

*Continued on page 6*

## Ehrenfeld elected as chair of AMA Board

In June 2018, Jesse Ehrenfeld, MD, MPH, was elected chair-elect of the Board of the American Medical Association. Elected by the Board of Trustees, the chair of the AMA is charged with serving as the primary spokesperson for the Board for a one-year term. Ehrenfeld's term as chair begins in June 2019. The role of the AMA Board is to guide the AMA in shaping a better, healthier future for patients, physicians, and the country as a whole.

"I am humbled to have the confidence of my fellow trustees to serve in this position as their leader," he said. "This is both an exciting and challenging time to be a leader in American medicine because of the incredible change underway throughout the healthcare system." Ehrenfeld explained that the AMA is a powerful ally and unifying voice for America's physicians, the patients they care for, and the promise of a healthier nation.

According to Ehrenfeld, the AMA is  
*Continued on page 6*

## MESSAGE FROM THE CHAIR



Warren S. Sandberg, MD, PhD

The holiday season is upon us, and it is time to reflect on the many accomplishments our department has achieved in the past few months.

We just finished up at the annual meeting for the American Society of Anesthesiologists, which took place in San Francisco this year. Our department, represented by 50 faculty members

and 24 trainees, contributed over 70 activities to the program.

Our faculty are serving as leaders within our institution and at the national level. For example, Brian Rothman, MD, was named to the new role of Medical Director for VUMC Revenue Cycle. This role is critical to ensuring we are delivering excellent patient financial care. This is but one example of

numerous named and un-named leadership roles our department members have taken on in service to VUMC and our patients.

Jesse Ehrenfeld, MD, MPH, was elected chair-elect of the Board of the American Medical Association by the Board of Trustees. This is a crucial role as the AMA Board helps guide the shaping of health care for

patients and clinicians for our entire country.

The department also participated in the visit from the Surgeon General, Dr. Jerome Adams. David Edwards, MD, PhD, and Leslie Fowler, MD, participated in a meeting with Dr. Adams about the opioid crisis and involving our leadership in research, policy, and education on this topic. Ehrenfeld was

charged with escorting the Surgeon General about campus. Dr. Adams left VUMC signed up as a participant in the VUMC-developed QuizTime learning app on responsible opioid prescribing.

Internationally our department is making strides as well. Global Health's grant to train nurse anesthetists and teach future trainers in Kenya has expanded to

Ethiopia. This is a testament to our success as a department in broadening global health.

Even though cold weather and a busy holiday season are fast approaching, I am confident the members of our department will remain steadfast in our compassionate, creative, committed, and collaborative approach to clinical care, education, and research.

## Grant

*continued from front page*

or inadequate, and equipped KRNA educators with skills in clinical and didactic teaching, data collection, and simulation training.

The training tools developed in Kenya will be utilized in Ethiopia. Despite being one of the largest countries in Africa, Ethiopia has, according to Newton, very few anesthesia providers.

The two-year education outcomes research and capacity building grant will begin in two regions of Northern Ethiopia—Amhara and Tigray.

The VUMC Department of Anesthesiology will collaborate with Bahir Dar University in Amhara and Mekelle University in Tigray, two leading medical institutions in their regions. The program, which also has the support of the Ethiopia Ministry of Health and regional ministries of health, will eventually reach nearby hospitals and other regions in Ethiopia. Kijabe Hospital will act as a training hub for educators from Ethiopia, providing the program with regional sustainability.

Newton said, "This was a long process to get to this point where we have a partnership with academics in the United States, corporate foundations, the government of Ethiopia, the program in Kijabe, Kenya, and academic institutions within a region of Africa. It is a collaboration between East and West and North and South within the continent."

There are four components of the program, Sileshi explained. The first component is a novel learning management system that uses digital modules to deliver case-based training.

The system was developed to run without internet connectivity, which is limited in Ethiopia, and is supported in part by Martin Were, MD, of the Department of Bioinformatics and Vanderbilt Institute for Global Health.

The second component of the program is advancing the skills of current anesthesia educators and increasing the numbers of educators in Ethiopia through a 'training of the trainers' curriculum, which will improve the quality of anesthesia training programs in the country.

The third component is simulation-based training, which allows trainees to practice managing critical anesthesia events in a supervised setting before working with patients.

The final component is the deployment of a data collection tool, also specifically designed for settings with intermittent internet access, to gather perioperative outcome data and inform our understanding of anesthesia care in Ethiopia. The tool was used successfully to measure perioperative mortality data in Kenya during the original ImPACT project; the results of that analysis were published in *Anesthesiology* in August 2017.

Born and raised in Ethiopia, Sileshi is a cardiothoracic anesthesiologist at VUMC and is looking forward to making an impact in the home country he left in high



Photo submitted by Ryan Oosthuysen, MD.

school. Sileshi said, "I was fortunate to come to the United States to further my studies and complete anesthesia training. I now have the capacity and the ability to return to Ethiopia and give back."

Sileshi's involvement in the program's expansion to Ethiopia is an important asset because he is uniquely qualified to ensure that the intervention is culturally and contextually relevant, and thereby more effective. Sileshi has been able to find an avenue in academic anesthesiology at VUMC to have a direct impact on patient care in his home through the work within ImPACT-Ethiopia.

Warren Sandberg, MD, PhD, Chair of the Department of Anesthesiology, said he is excited about the expansion of the ImPACT project. "VUMC has the global impulse throughout. I'm especially proud of our capacity building. Access to safe anesthesia can save countless lives. I am excited to see what ImPACT can do in Ethiopia by educating local providers."



# Department participates in Surgeon General visit to VUMC



US Surgeon General Dr. Jerome Adams speaks to a small group prior to speaking at Langford Auditorium. **Photo Credit to Joe Howell and Vanderbilt University Medical Center.**

Several members of the Department of Anesthesiology participated in the visit United States Surgeon General Jerome Adams, MD, MPH, paid to VUMC on Friday, May 18, 2018. His visit consisted of a Health Policy Grand Rounds titled “Combating America’s Opioid Crisis,” as well as several meetings to discuss key programs at VUMC and the School of Medicine.

Jesse Ehrenfeld, MD, MPH, served as Special Advisor to the Surgeon General as well as the site lead for the visit. To prepare, Ehrenfeld said he worked with his team to arrange opportunities for Adams to learn about VUMC and “included our strategies around population health, advancing health equity, and responding to the nation’s opioid crisis. I also worked closely with the Department of Health Policy to coordinate his public talk on combatting the opioid crisis.”

David Edwards, MD, PhD, and Leslie Fowler, MEd, attended a meeting titled “Opioid Abuse Research, Public Policy, and Provider Education,” which discussed the ongoing efforts, projects, and initiatives VUMC is working on surrounding the opioid crisis in Middle Tennessee and the United States. Edwards said he shared some of VUMC’s strategies for treating perioperative pain and addictions and how patients are screened for risk of poor outcomes related to opioid addiction.

Fowler discussed a project called “Function First, Opioids Last” using the Quiz-

Time application. This program delivers Continuing Medical Education credit to physicians for interacting with questions and content surrounding important clinical topics like opioid prescribing. One important outcome is that retention of the content may result in clinician behavior changes and better prescribing practices.

Fowler explained the project targeted opioid prescribing practices of specifically Obstetric/Gynecologists and Hospitalists. “If we have enough interest and resources, it could be scaled to larger physician groups in Middle Tennessee. One result of our pilot showed an increase in the prescribing of non-opioids for our learner group from 17 percent pre intervention to 34 percent post intervention,” she said.

Ehrenfeld said working with a highly visible senior official is both an incredible privilege and a learning experience. He said he received tremendous feedback on how positive the visit with Adams and his team went. “It was a terrific opportunity to showcase some of the extraordinary work happening on campus and continue to develop partnerships with the federal government to advance the health of the nation.”

One of the things Fowler learned during the visit is that Adams is committed to battling the opioid crisis and has advised the public to be trained

and have access to naloxone, an opioid overdose reversal drug. “Not only is he extremely knowledgeable about the facts and statistics concerning opioid abuse, misuse and addiction, he genuinely seems to care about the effects this epidemic has had on the people in the United States,” she elaborated.

The passion Adams has for turning off the tap of excess opioids while at the same time expanding treatment options was something Edwards said he learned about Adams during the visit. “He would like to enable primary care doctors to more easily treat addiction by expanding the number of providers getting their DEA license. I feel that is a great idea,” he said.

Edwards said the Surgeon General’s visit was helpful. “It informed us of the vision and strategy that is occurring at the national level, and this will help us locally align and support this strategy,” Edwards said. “VUMC will benefit from a cohesive treatment strategy for addiction.”

Chair of the department Warren Sandberg, MD, PhD, said the opportunity for members of the department to present to Adams was a great opportunity to highlight what not only the department is going to contribute to the opioid crisis strategy but VUMC as a whole. “It is not every day your institution and department get the chance to have a discussion with the United States Surgeon General.”

# 2018 American Society of Anesthesiologists Annual Meeting



Mark Rice, MD, presented the Subspecialty Panel titled "Entrepreneurship: Experiences of an Anesthesiologist."



Pictured from left to right: Michael Pilla, MD, Saranda Eleswarpu, MD, and Amy Zhang, MD, celebrated at the department's Alumni Reception.



Kelly McQueen, MD, MPH, presented at a session for residents and fellows titled "Global Health Opportunities for Residents."



Letha Mathews, MBBS, moderated the Medically Challenging Case "Concurrent Stroke and Myocardial Infarction: A Balanced Approach to Management" being presented by resident Lauren-Nicole Geib, MD.



Robert Fruendlich, MD, MS, and Jonathan Wanderer, MD, MPhil, moderated the e-Abstract Presentation session titled "Information Management and Database Research."

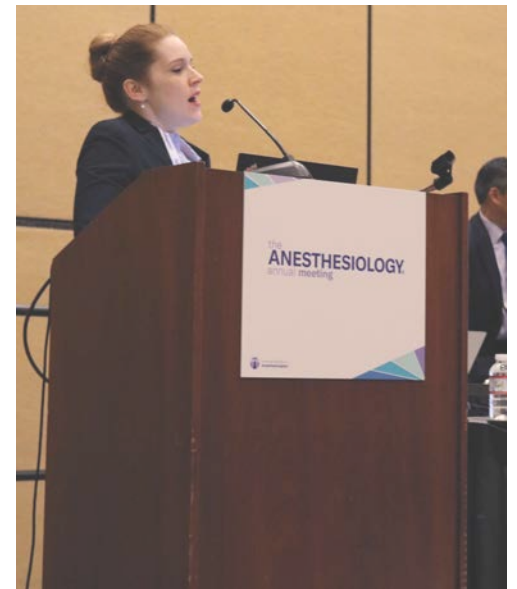


Stephen Hays, MD, presented a Clinical Forum titled "Special Considerations for International Pain Management in the Pediatric Patient."





*The department's table at the Resident Meet and Greet.*



*Jeanette Bauchat, MD, MS, spoke at Subspecialty Panel "New Tools to Succeed in 2019 and Beyond."*



*Pictured from left to right: Christina Boncyk, MD, Liza Weavind, MBBCh, MMHC, and Dorothee Mueller, MD, at the department's Alumni Reception.*



*Mark Newton, MD, participated in a 120 Minute Panel titled "Expanding Non-Physician Anesthesia Providers in East Africa: Challenges and Roles for International Academic Partnership."*



*Simon Martin, MD, presented the Medically Challenging Case titled "A Curiosity Provoked Complex Regional Pain Syndrome Type II Following Prolonged Loss of Consciousness."*



# Ehrenfeld

continued from front page

focused on attacking dysfunction in healthcare by removing burdens that interfere with patient care, improving the health of the nation by confronting the increasing chronic disease burden, and reimagining medical education, training, and lifelong learning for the digital age to help physicians

adapt and grow throughout their career.

Reflecting on how his AMA role will interact with his work at Vanderbilt, he commented, "My ability to serve in this position is only possible because of the deep commitment of my Vanderbilt colleagues and our leadership in enabling VUMC to shape the future of American healthcare."

Department Chair Warren Sandberg, MD, PhD, said it

is an honor to have a member of the department serve in such an important role in American medicine. "It is vitally important that the members of our department and of VUMC take on these leadership roles whenever offered."

Ehrenfeld added, "I look forward to lending my skills and energy to help the AMA be successful in its mission of promoting the art and science of medicine and the betterment of public health."



# Rothman

continued from front page

care facilities to manage the administrative and clinical functions associated with claims processing, payment, and revenue generation.

At VUMC, the Revenue Cycle includes billing, collections, pre-patient registration and financial clearance, hospital and emergency registration, professional coding, revenue management, patient financial customer service for hospital and clinic technical charges, and clinician professional charges billed through the Vanderbilt Medical Group.

"Revenue Cycle is an integral part of patient service and is dependent upon successful processes designed to support clinicians throughout the care continuum. Having a medical leader such as Dr. Rothman with deep experience in both information technology and finance will allow us to take our revenue cycle results to the next level," said Cecelia Moore, MHA, CPA, Chief Financial Officer and Treasurer.

Working closely with Gayla Harvey, Senior Vice President for Revenue Cycle Services and Payer Strategy, Rothman will have a range of responsibilities that span

medical coding, clinical pre-and post-billing denials, clinical payer policy and improving professional clinical documentation.

He will also serve as a key liaison to the medical directors of managed care and governmental payer organizations. In addition, Rothman will coordinate closely with teams working to enhance patient experience.

In coordination with David Raiford, MD, Chief of Clinical Staff, and Paul Sternberg Jr., MD, Chief Medical Officer, Rothman will serve as VUMC's primary medical liaison with the medical leadership of external managed care plans, governmental plans, and other governmental and public entities. He will also coordinate as needed with Gerald Hickson, MD, Senior Vice President for Quality, Safety and Risk Prevention.

"Dr. Rothman will provide a critical link between our clinicians, our faculty practice, and our finance team. Brian has great experience at evaluating complex problems, helping dissect out the key elements, and bringing the team together with a novel and effective solution. I am thrilled he has accepted this key role on our leadership team," said Sternberg.

Rothman joined VUMC in 2007 and has assumed increasing levels of responsibility within the Department of Anesthesiology and has also made significant contributions toward the advancement of information technology (IT) in the perioperative environment and elsewhere across the Medical Center.

*"Brian has great experience at evaluating complex problems, helping dissect out the key elements, and bringing the team together with a novel and effective solution. I am thrilled he has accepted this key role on our leadership team,"*

**- Paul Sternberg, Jr., MD, Chief Medical Officer**

In addition to being involved in the development of and helping to usher into use new IT advancements, Rothman serves on numerous Medical Center committees and workgroups, including: the Joint Operations Oversight Committee, Supplies and Equipment Committee, Integrated Presence Core Group, Informatics and Perioperative Services Steering Committee, Health Records

Executive Committee, and the Clinical Health Information Management Advisory Group.

"We are delighted that Dr. Rothman has accepted this new role. His analytical ability helps him identify and exploit opportunities for systems improvement. In addition, Brian's interpersonal skills help him create collaborative consensus, an essential element in advancing this type of work," Raiford said.

The author of numerous research articles and editorials and a frequent presenter at national and international scientific meetings, Rothman is also actively involved in teaching Vanderbilt University School of Medicine students and training anesthesiology residents.

Rothman earned both a bachelor of science in business administration, accounting and finance and a medical degree from the University of Cincinnati. He served his internship in internal medicine at Mercy Medical Center in Baltimore and underwent residency training in anesthesiology and critical care medicine at The Johns Hopkins Hospital in Baltimore, Maryland.

"Our goal is to develop a closer connection between the Revenue Cycle team and our patients, providers, payers, and regulators to build a better experience and greater system efficiencies and to maintain Vanderbilt's financial health," Rothman said.

## 2018 Dr. James Phythyon Endowed Lectureship in Pediatric Anesthesiology



Joseph P. Cravero, MD, was the guest lecturer for the 2018 Dr. James Phythyon Endowed Lectureship in Pediatric Anesthesiology on Friday, April 13, 2018. His topic was "The Changing Paradigms of Clinical Research & Data Analysis in Anesthesiology." (Pictured left to right: Warren Sandberg, MD, PhD, Phythyon daughter Sarah Miller, Joseph P. Cravero, MD, Phythyon daughters Mary Neal Meador and Elizabeth Donner, and Jill Kilkelly, MD.)



## Stuart McGrane receives the Mildred T. Stahlman Award

Stuart McGrane, MBChB, received the Mildred T. Stahlman Award in Clinical Innovation on Wednesday, May 23, 2018, during the Spring Faculty Meeting for his efforts and innovation in developing and leading an interdisciplinary adult extracorporeal membrane oxygenation (ECMO) team.

ECMO provides temporary mechanical heart and lung support for critically ill patients and is generally offered as a lifesaving intervention for patients with significant lung or cardiac failure when conventional modes of therapy have been exhausted.

This award specifically was for his work on the Vanderbilt ECMO Transfer/Referral Program, which provides consultative services 24/7 to patients in facilities within 500 miles of Nashville. If ECMO is needed, a team of VUMC specialists is deployed within hours to initiate ECMO and, if necessary, transport the patient safely to VUMC. "This is a good feeling for the entire ECMO team. The transport team have all made significant personal sacrifice to enable this to be successful and this is acknowledgement for their efforts," McGrane said.

The nominations for the Adult ECMO Team to receive this award came from Pratik Pandharipande, MD, and Clifford Lee Parmley, MD, JD, MMHC, plus testimonials from referring physicians and even a patient's family member.

Pandharipande said the team is "highly skilled at caring for patients with the

most severe life threatening illnesses yet has been frequently cited by referring physicians and families for its amazing professionalism, interpersonal skills, and humane and compassionate care."

Parmley mentioned the evolution of the ECMO team as increasing demand for sophisticated therapies for patients in critical condition. "The innovation necessary to approach and achieve this current state is not only noteworthy but also of sufficient character to merit the Mildred T. Stahlman, MD, award."

McGrane said the unique challenges he faced in developing the program were things like equipment, bedside staffing models, and transport equipment. He clarified he was lucky to have inherited a program that had been through many growing pains and many of the pieces were in place. "I also benefited from the support of my division chief, Pandharipande, and from Ashish Shah, MD, chair of Cardiac Surgery. Their support and mentorship encouraged me to push forward," he said.

By the end of 2017, the program had provided ECMO support to 59 patients in VUMC, and it has transported 19 patients thus far in 2018. In fact, VUMC ECMO is the busiest ECMO referral center in Tennessee. "Every time we arrive and collect a patient, we experience the gratitude from the local physicians, nurses, and patient families. It is gratifying for all involved that these patients are being given an opportunity. It is a privilege to be able to provide this service," he said.



Stuart McGrane, MBChB, (left) was awarded the Mildred T. Stahlman Award in Clinical Innovation. He was presented the award by Jeffrey Balser, MD, PhD, (middle) and Pratik Pandharipande, MD, (right).

The future development of ECMO, according to McGrane, will be spreading the word that this service is available within Tennessee and the surrounding area and to expand what ExtraCorporeal Life Support services VUMC offers, especially eCPR.

"I want to emphasize that this is a truly multidepartment, interdisciplinary team effort. So many people are involved to make this successful that to try to name them all would do a disservice to anyone I miss out," he said.

Chair of the Department of Anesthesiology Warren Sandberg, MD, PhD, said that it is a pleasure to see the ECMO team get the recognition it deserves as it provides great health care for patients with life-threatening illnesses and makes it possible for them to get treatment. "I look forward to seeing what new innovations the ECMO team will come up with next.



# Battlefield acupuncture used as alternative for chronic pain

*Originally published on Aug. 16, 2018, in The Reporter*

Franklin resident Diane Grich admits she was surprised when she was asked if she would like to try acupuncture instead of a more invasive medical procedure to address the chronic lower back pain that had troubled her off and on for 17 years; she chose acupuncture.

As she lay quietly in a treatment room at the Vanderbilt Interventional Pain Clinic, Heather Jackson, MSN, RN, APRN-BC, precisely placed five tiny needles into each of Grich's ears; then she flipped off the room's top light and left Grich alone with the needles in place for 20 minutes. Grich said the result was near immediate relaxation and pain relief. Since her first treatment, she has returned for a second time to receive what's known as "battlefield acupuncture."

"Whenever I'm stressed, it seems to immediately go to my back," said Grich, who said a recent golf outing ignited her back pain. "This treatment relaxes me immediately and definitely dissolves that pain. The first time I got the treatment, the relief lasted five to seven days."

Grich, 56, leads an active life, so she hated being immobilized by pain. Side effects from pain medications bothered her, and she had come to rely on other options including physical therapy, ice packs, and steroid injections.

Receiving a minimally invasive treatment that has few side effects has been a welcome relief, Grich said.

Acupuncture originated in China more than 2,000 years ago, with the therapeutic intention of restoring the body's balance and energy. Battlefield acupuncture is thought to calm the central nervous system and particularly an area of the brain that processes pain known as the cingulate gyrus.

The technique was developed by now retired Air Force Col. Richard Niemtzow, MD, in 2001, and has been used by the United States military for more than a decade.



Vanderbilt Interventional Pain Clinic's Heather Jackson, MSN, RN, APRN-BC, sticks tiny needles into patient Diane Grich's ears during a treatment for chronic pain known as battlefield acupuncture. **Photo credit:** Susan Urmey.

Today, nearly 3,000 people from all branches of the military have been trained to provide the acupuncture treatment for both acute and chronic pain, as well as to reduce opioid over-prescribing and potential abuse. Because it is just as easily administered in a clinic as it is on the front line for a combat-wounded soldier, it was named battlefield acupuncture. Battlefield acupuncture was used by medics during air evacuations in the Gulf War, and acupuncture has been studied by the military as a therapy for a medical condition known as Gulf War Syndrome and for post-traumatic stress disorder (PTSD).

"For years I have been recommending acupuncture to patients, and the most common barrier was the cost, as it is not covered by insurance," said Jackson, who has been certified to provide the treatment.

"I wanted to make acupuncture an accessible option for our patients.

"I initially brought the NADA protocol (National Acupuncture Detoxification

Association) acupuncture therapy to Vanderbilt as an additional treatment option for patients undergoing opioid withdrawal. After I received the NADA training, I heard about battlefield acupuncture and realized the Veterans Health Administration was using this nationwide with their advanced practice providers, so it seemed like a logical next step."

To eliminate the cost barrier, Jackson offers battlefield acupuncture for \$20 a session. Many patients also appreciate the short list of possible side effects: slight soreness, mild bruising, and a very minimal risk of infection, she said.

After removing the needles from Grich's ear following her treatment, Jackson offered her the option of leaving the clinic armed with an acupressure therapy she could self-administer. Grich was eager to give it a try as well.

Jackson carefully applied tiny, round flower seeds attached to squares of flesh-toned adhesive to specific pressure points

*Continued on next page*



# 2018 Annual Recognition & Awards Ceremony

## Golden Apple

Adam King, MD  
Brian Allen, MD  
Matt McEvoy, MD

## Volker I. Srripe Award

Shannon Killkelly, DO

## James Tayloe Gwanthey Award

Johnny Wei

## CRNA/SRNA/Tech Awards

SRNA of the Year: Jordan Scott  
CRNA Instructor of the Year: B.J. Barker  
Anesthesia Tech of the Year: Jeff Minnick  
CRNA Clinical Excellence Award-Junior: Spencer Stanton  
CRNA Clinical Excellence Award-Senior: Laura Payne

## B.E. Smith Mentorship Award

Chris Hughes, MD

## Resident Awards

Neuroanesthesia: Jason Quevreaux, MD  
Pain Medicine: Jon Niconchuk, MD  
Ambulatory Anesthesia: Jason Quevreaux, MD  
Regional Anesthesia: Allison Janda, MD  
Perioperative Medicine: Michael Kreger, MD  
Critical Care Medicine: Kimberly Rengel, MD  
Excellence in Quality and Safety: John Meyer, MD  
Adult Multispecialty Anesthesia: John Meyer, MD  
Cariothoracic Anesthesia: Melissa Bellomy, MD  
Transesophageal Echocardiography: Jason Quevreaux, MD  
Hepto-Vascular Anesthesia: Michael Kreger, MD  
Cardiovascular, Veterans Affairs: Kimberly Rengel, MD  
Pediatric Anesthesia: John Meyer, MD  
Obstetric Anesthesia: Michael Kreger, MD  
Resident Teacher of the Year: Kimberly Rengel, MD

## Chief Resident Awards

Melissa Bellomy, MD  
Phil Leisy, MD  
Allison Janda, MD

## Chief Resident Awards

Kimberly Rengel, MD

## Acupuncture

*continued from previous page*

inside Grich's ears. She advised Grich to apply pressure or rub the points periodically, with the goal of continued relaxation and pain relief.

"I'm rubbing my ear right now, and I can already feel myself relaxing," Grich said. "It was refreshing, really, to be offered this option, especially at a large medical center like Vanderbilt. I view acupuncture as an alternative medical treatment, and I applaud Vanderbilt for giving their patients this option."

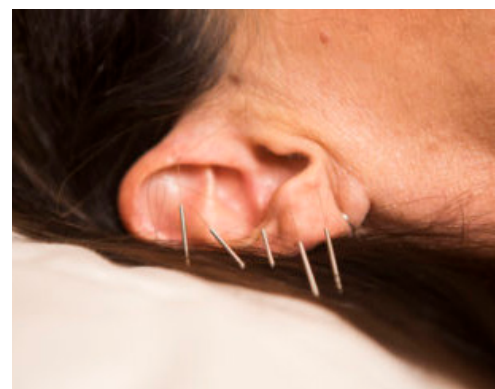
In acupuncture, the entire body can be treated with specified points in the ear, and the points where the needles are inserted are in line with the practice of acupuncture and the principles surrounding the body's flow of chi, or energy, Jackson said.

"There are many studies that have promising results for the use of acupuncture across multiple disciplines and patient populations, but higher-quality randomized controlled trials with large sample sizes are definitely needed," she added.

As growing emphasis is placed on reducing opiate use in the United States, the treatment of chronic pain is not "one-size-fits-all," cautioned Pain Management Division Chief David Edwards, MD, PhD.

"Long-term use of opiates is still an indispensable tool for many chronic, debilitating, and severely painful conditions," he said. "Vanderbilt Pain Management uses the best and most up-to-date medical evidence to treat pain. This approach targets the type of pain with medications specific for the diagnosis.

"Since the goal is improved function and quality of life, Vanderbilt's treatment plans incorporate non-medication treat-



Five needles placed in specific areas of the ear are an inexpensive and minimally invasive treatment option now offered at the Vanderbilt Interventional Pain Clinic to patients with chronic pain. **Photo credit: Susan Urmey**

ments (such as interventional procedures, acupuncture, yoga, and physical therapy), non-opiate pain medications, and opioids when appropriate and needed."

# Department Spotlight: Celebrating Departmental Accomplishments

**Jeff Balser, MD, PhD**, gave the T.H. Seldon Memorial Lecture at the opening general session of the IARS (International Anesthesia Research Society) meeting on Saturday, April 28, 2018. The topic of the presentation was "Personalizing Health Care in the Era of Big Data."

**Julia Bohannon, PhD**, was awarded two alumni awards from Eastern Kentucky University: the Outstanding Alumni Award from the College of Science and a Professional Development Alumni Award from the University.

Congratulations to **Rebecca Cummings** and **Harrison Johnson**. They were nominated to be considered for the VUMC Administrative Professionals Award. This award was created to recognize the efforts of outstanding administrative staff who impact the organization by going above and beyond on a daily basis.

**John Corey, MD**, and **Dan Lonergan, MD**, were both listed as one of the Top 3 Pain Management Doctors in Nashville, TN, by [ThreeBestRated.com](http://ThreeBestRated.com).

**Chief CRNA Brent Dunworth** was awarded the Nevin Downs Leadership Award presented at this year's 5th Annual MTSA Mission & Awards Gala.

**Jesse Ehrenfeld, MD, MPH**, was the keynote speaker at the annual meeting of the Medical Society of New Jersey in Long Beach, NJ. His topic was "Innovation & Technology in Healthcare."

On Wednesday, May 30, 2018, **Jesse Ehrenfeld, MD, MPH**, presented at the Obstetrics, Gynecology and Reproductive Sciences Grand Rounds at Rutgers Robert Wood Johnson Medical School and Women's Health Institute. His topic was "LGBT Health: Progress and Hurdles."

**Jesse Ehrenfeld, MD, MPH**, was the recipient of the 2018 GLMA Achievement Award. He was presented the award at the Gay and Lesbian Medical Association Achievement Awards Gala on Saturday, October 13, 2018.

**Jesse Ehrenfeld, MD, MPH**, received the 2018 National Institutes of Health (NIH) Sexual & Gender Minority Research Investigator Award. He gave a lecture on his research at NIH on Thursday, September 6, 2018, in Bethesda, Maryland.

**Jesse Ehrenfeld, MD, MPH**, **Chad Greene, DO**, and **Calvin Gruss, MD**, attended the

ASA Board meeting. Ehrenfeld gave a talk, "The future of physician led care," in his role as a guest and chair-elect of the AMA Board. **Brian Rothman, MD**, attended the meeting as a member of ASA's Committee on Electronic Media and Information Technology (EMIT).

**Leslie Fowler, MEd**, presented at the SACME (Society for Academic Continuing Medical Education) meeting in San Antonio, TX, on Friday, April 27, 2018. Her presentation was titled "Novel Approach to Delivering Continuing Medical Education Material and Credit Concerning Opioid Prescribing Practices."

**Chad Greene, DO**, was recently selected to participate in the American Society of Anesthesiologists Policy Research Rotation in Washington, D.C. He worked at the ASA Washington, D.C. office, as well as on Capitol Hill and in the White House.

On May 10, 2018, **Raj Gupta, MD**, talked with Vanderbilt University School of Medicine faculty about social media best practices and how effective use of social media enhances research and increases professional impact.

**Anna Hartzog, MD**, was presented the LMA Golden Award at the Friday, July 27, 2018, Grand Rounds. Jared Cummings, MD, presented the award.

On Tuesday, May 1, 2018, **Heather Jackson, MSN, RN, APRN-BC**, spoke at April Fest: A Nursing and Professional Development Symposium. Her topic was titled "Acupuncture for Opioid Detoxification."

**Heather Jackson, MSN, RN, APRN-BC**, has been appointed the role of Ambulatory Assistant Director of Advanced Practice in the Surgery PCC.

**Heather Jackson, MSN, RN, APRN-BC**, kicked off the daily sessions for the American Society of Regional Anesthesia and Pain Medicine World Congress on Saturday, April 21, 2018.

At the American Society of Regional Anesthesia and Pain Medicine World Congress on Saturday, April 21, 2018, **Eugene Leytin, MD**, presented a poster on the risks of unidentified abdominal hernia in patients receiving TAP blocks or rectus sheath blocks.

**Rodrigo Llobet, MD**, has been appointed Pediatric Anesthesiology Simulation Program Director.

**James Lozada, DO**, and **Kelly McQueen, MD, MPH**, will serve as Social Media Ambassadors for the Anesthesia Patient Safety Foundation.

**Letha Mathews, MBBS**, presented at our CME Case Conference on Friday, July 27, 2018.

**Kelly McQueen, MD, MPH**, delivered the Deakin University School of Medicine Oration on Wednesday, Oct. 10. Her lecture was titled, "My Career in Global Health: Advice on Planning a Career from Any Specialty."

**Alex Moore, MD**, has been appointed CEBA Director.

**Pratik Pandharipande, MD**, presented at the annual Society of Critical Care Anesthesiologists (SOCCA) meeting on Friday, April 27, 2018. His topic was titled "Post ICU Recovery Clinics."

**Britany Raymond, MD**, has been appointed Director of Undergraduate Medical Education.

**Warren Sandberg, MD, PhD**, presented at the International Anesthesia Research Society (IARS) meeting on Monday, April 30, 2018. His lecture, "Basics of Negotiation," was part of a moderated panel titled "So You Want to Be a Leader: A How-To Guide."

**Edward Sherwood, MD, PhD**, was elected as Secretary to the Shock Society.

**Jonathan Wanderer, MD, MPhil**, received a 2018 Folio Mag Eddie & Ozzie Award for his infographic titled "Translational Research in Anesthesia: Animals vs. Humans" featured in *Anesthesiology*.

**Matthew Weinger, MD**, was appointed to serve as a member of the Committee on Systems Approaches to Improve Patient Care by Supporting Clinician Well-Being by the National Research Council and the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine.

**Matthew Weinger, MD**, was featured on AHRQ's website for his significant contributions to the health services research field. The purpose of this profile series is to highlight AHRQ-funded researchers whose work has led to vital changes in health care policy and notably influenced research and practice.



# 2018 Annual Research Symposium Awards



**BEST POSTER PRESENTATION:** Kevin Manz, BS, and Liza Weavind, MBBCh, MMHC, for their poster titled "GABA(B) receptor function regulates feedforward inhibitory microcircuits in the nucleus accumbens core."

**BEST ORAL PRESENTATION:** Loren Smith, MD, PhD, for her presentation titled "Perioperative changes in high density lipoprotein characteristics and the risk of acute kidney injury after cardiac surgery."

**PITTINGER PRIZE - BASIC SCIENCE RESEARCH:** Brad Grueter, PhD, for the article "Toll-like receptor 4 deficiency alters nucleus accumbens synaptic physiology and drug reward behavior."

**PITTINGER PRIZE - CLINICAL/TRANSLATIONAL RESEARCH:** Marcos Lopez, MD, for the article "Intraoperative cerebral oxygenation, oxidative injury, and delirium following cardiac surgery."

**PITTINGER PRIZE - HEALTH SERVICES/INFORMATICS RESEARCH:** Stephen Bruehl, PhD, for the article "Chronic pain-related changes in cardiovascular regulation and impact on comorbid hypertension in a general population: the Tromsø study."

**PITTINGER PRIZE - EDUCATION & QUALITY IMPROVEMENT RESEARCH:** Ban Sileshi, MD, for the article "Monitoring Anesthesia Care Delivery and Perioperative Mortality in Kenya Utilizing a Provider-driven Novel Data Collection Tool."

**ROGER ENGLAND RESEARCH AWARD FOR EXCELLENCE IN SUPPORT OF BASIC AND CLINICAL SCIENCE:** Gail Mayo, RN, CCRP, CIP

**B.E. SMITH MENTORSHIP AWARD:** Christopher Hughes, MD, MS

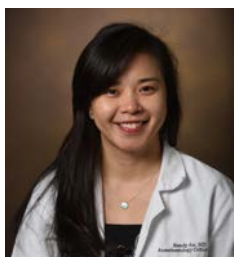


From Monday, May 14, to Wednesday, May 16, 2018, several of our department faculty attended the American Society of Anesthesiologists Legislative Conference on Capitol Hill in Washington, D.C.



CRNAs participated in the annual congress of the American Association of Nurse Anesthetists, which was held in Boston from Friday, Sept. 21, to Tuesday, Sept. 25.

## NEW DEPARTMENT MEMBERS



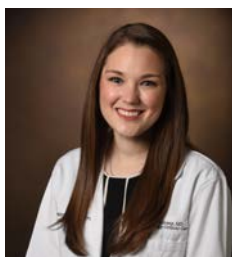
**Si Sandy An, MD, PhD**  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency**, Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2018)  
**MD/PhD**, Wake Forest School of Medicine, Winston-Salem, NC (2014)  
**BS/BA**, Biostatistics and Chemistry, University of North Carolina - Chapel Hill Chapel Hill, NC (2007)

**FUN FACT:**

I rode an ostrich.



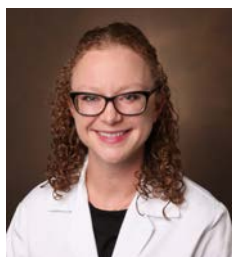
**Melissa Bellomy, MD**  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency**, Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2018)  
**MD**, Harvard Medical School, Boston, MA (2014)  
**BS**, Biochemistry, Seton Hall University, South Orange, NJ (2010)

**FUN FACT:**

I sing classical music.



**Christina Boncyk, MD**  
Assistant Professor  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Fellowship**, Critical Care Medicine, Vanderbilt University Medical Center, Nashville, TN (2018)  
**Residency**, Anesthesiology, University of Wisconsin Hospitals and Clinics, Madison, WI (2017)  
**MD**, University of Wisconsin School of Medicine and Public Health, Madison, WI (2013)

**FUN FACT:**

I'm a Green Bay Packers co-owner.



Picture Unavailable

**Michael Bowman, DO**  
Fellow  
Interventional Pain

**EDUCATION:**

**Residency**, Anesthesiology, University of Texas Health Science Center, San Antonio, TX (2018)  
**DO**, Lake Erie College of Osteopathic Medicine, Greensburg, PA (2014)  
**BA**, Environmental Science, Pre-Medicine, Robert Morris University, Moon Township, PA, (2010)

**FUN FACT:**

I love the outdoors.



Picture Unavailable

**Lauren Byrd**  
Certified Registered Nurse  
Anesthetist

**EDUCATION:**

**MS**, Nurse Anesthesia, Middle Tennessee School of Anesthesia, Madison, TN (2015)  
**BSN**, Lipscomb University, Nashville, TN (2009)

**FUN FACT:**

I went backpacking through Europe for a summer in college.



**Robert Caughey, MD**  
Fellow  
Interventional Pain

**EDUCATION:**

**Residency**, Anesthesiology, University of California, San Francisco, CA (2018)  
**MD**, Tulane University, New Orleans, LA (2014)  
**BS**, Biology, Haverford College, Haverford, PA (2005)

**FUN FACT:**

I went to the kickball national championships in Las Vegas.



**Michael Chi, MD**  
Assistant Professor  
Pain Management

**EDUCATION:**

**Fellowship**, Interventional Pain, Vanderbilt University Medical Center, Nashville, TN (2018)  
**Fellowship**, Research, Vanderbilt University Medical Center, Nashville, TN (2017)  
**Residency**, Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2016)  
**MD**, Vanderbilt University School of Medicine, Nashville, TN (2012)

**FUN FACT:**

My hobbies include wood working, photography, and golf.



Picture Unavailable

**Michael Conti**  
Certified Registered Nurse  
Anesthetist

**EDUCATION:**

**MSN**, Nurse Anesthesia, Drexel University, Philadelphia, PA (2003)  
**BSN**, Hahnemann University, Philadelphia, PA (2001)

**FUN FACT:**

Recent transplant to Atlanta.



Picture Unavailable

**Denise Dela Torre**  
Clinical/Translational  
Research Coordinator

**EDUCATION:**

**MS**, Biomolecular Science, Lipscomb University, Nashville TN (2015)  
**BS**, Molecular Biology, Lipscomb University, Nashville TN (2015)

**FUN FACT:**

Bilingual, team player, dedicated, food lover, plant lover, love to learn new things, love science, detail oriented.



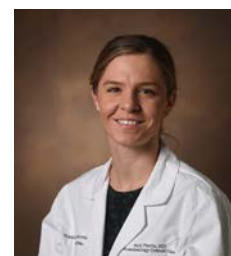
**Rasesh Desai, MD**  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency**, Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2018)  
**MD**, Medical University of South Carolina College of Medicine, Charleston, SC (2012)  
**BS**, Chemistry, University of South Carolina, Columbia, SC (2008)

**FUN FACT:**

Love to go on safari.



**Emily Farrin, MD**  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency**, Anesthesiology, Cleveland Clinic Foundation, Cleveland, OH (2018)  
**MD**, Case Western University, Cleveland, OH (2010)  
**BA**, Biology, Cornell University, Ithaca, NY (2006)

**FUN FACT:**

I am an identical twin.



**Keanan Gottlieb**  
Research Analyst

**EDUCATION:**

**BA**, Public Health, Pitzer College, Claremont, CA (2017)

**FUN FACT:**

I am learning to play the bagpipes.





**Dustin Hamblen**  
Certified Registered Nurse  
Anesthetist

**EDUCATION:**

**MS**, Nurse Anesthesia,  
University of Tennessee at  
Chattanooga, Chattanooga,  
TN (2018)  
**BS**, University of Tennessee,  
Knoxville, TN (2010)

**FUN FACT:**

I started playing organized  
sports at age 5 and played  
into college until age 19.



**Megan Henley, MD**  
Fellow  
Cardiothoracic  
Anesthesiology

**EDUCATION:**

**Residency**, Anesthesiology,  
University of North Carolina,  
Chapel Hill, NC (2018)  
**MD**, University of North  
Carolina, Chapel Hill, NC  
(2014)  
**BS**, Molecular and Structural  
Biochemistry, North Carolina  
University, Raleigh, NC  
(2010)

**FUN FACT:**

I read extremely quickly; it's  
not uncommon for me to  
read nearly 200 pages an  
hour when reading for  
pleasure.



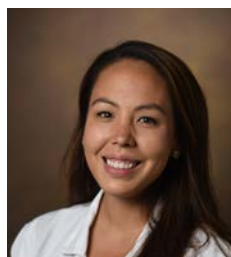
**Shannon Hersey, MD**  
Associate Professor of  
Clinical Anesthesiology  
Multispecialty Adult  
Anesthesiology

**EDUCATION:**

**Fellowship**, Pediatric  
Anesthesiology, Vanderbilt  
Children's Hospital, Nashville,  
TN (1993)  
**Residency**, Anesthesiology,  
Vanderbilt University Medical  
Center, Nashville, TN (1992)  
**MD**, University of Maryland,  
Baltimore, MD (1985)

**FUN FACT:**

Learned to drive in a model  
T Ford.



**Christina Jelly, MD**  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency**, Anesthesiology,  
Massachusetts General  
Hospital, Boston, MA (2018)  
**MD**, Duke University,  
Durham, NC & National  
University of Singapore,  
Singapore (2012)



**Jennifer Jutson, MD**  
Fellow  
Pediatric Anesthesiology

**EDUCATION:**

**Residency**, Anesthesiology,  
University of North Carolina,  
Chapel Hill, NC (2018)  
**MD**, Texas Tech Medical  
School, Lubbock, TX (2013)  
**BS**, Nursing, Abilene  
Christian University Abilene,  
TX (2003)

**FUN FACT:**

I own a 1969 Ford truck!



**Nicole King, MD**  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency**, Anesthesiology,  
Naval Medical Center, San  
Diego, CA (2015)  
**MD**, Saint Louis University  
School of Medicine, Saint  
Louis, MO (2008)

**FUN FACT:**

My husband and I both are  
in the Navy. We have done a  
combined five deployments,  
and my husband has  
currently never met our  
daughter!



**Prashanth Kumar  
Narayana Swamy**  
Business Intelligence Analyst

**EDUCATION:**

**MS**, Computer Information  
Systems, Middle Tennessee  
State University, Murfreesboro,  
TN (2016)  
**BS**, Electronics and  
Communication Engineering,  
Visvesvaraya Technological  
University, Bangalore,  
Karnataka (2013)

**FUN FACT:**

I love to stay active! I am  
taking boxing classes, hiking,  
and love traveling. In short  
"I'm not a gamer, I'm an  
adventurer."



**Benjamin Lee**  
Certified Registered Nurse  
Anesthetist

**EDUCATION:**

**MSN**, Nurse Anesthesia,  
Wolford College, Naples, FL  
(2011)  
**BSN**, University of Alabama,  
Tuscaloosa, AL (2008)

**FUN FACT:**

Currently in school for PhD. In  
free time, I love baking, biking  
and running through East  
Nashville parks, hiking, and  
spending time with family and  
two dogs.



**Amanda Leeper**  
Certified Registered Nurse  
Anesthetist

**EDUCATION:**

**MS**, Nurse Anesthesia,  
Middle Tennessee School of  
Anesthesia, Madison, TN  
(2009)  
**BS**, Nursing, East Tennessee  
State University, Johnson City,  
TN (2003)

**FUN FACT:**

I love to cook.



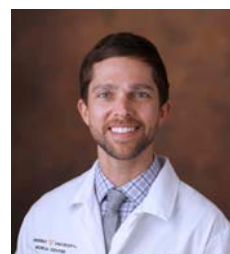
**Ryan Lefevre, MD**  
Fellow  
Cardiothoracic  
Anesthesiology

**EDUCATION:**

**Residency**, Anesthesiology,  
Scott & White, Temple, TX  
(2018)  
**MD**, University of  
Kentucky, Lexington, KY  
(2014)  
**BS**, Mechanical Engineering,  
Iowa State University, Ames,  
IA (2010)

**FUN FACT:**

I enjoy riding a road bike  
and spending time with my  
twin babies.



**Philip Leisy, MD**  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency**, Anesthesiology,  
Vanderbilt University Medical  
Center, Nashville, TN (2018)  
**MD**, East Carolina  
University, Greenville, NC  
(2014)  
**BS**, Biology, University of  
North Carolina, Chapel Hill,  
NC (2007)

**FUN FACT:**

I played in a professional  
marching band.



**Allyson Lemay, MD**  
Fellow  
Cardiothoracic  
Anesthesiology

**EDUCATION:**

**Residency**, Anesthesiology,  
Brigham and Women's  
Hospital, Boston, MA (2018)  
**MD**, University of Texas  
Health Science Center, San  
Antonio, TX (2014)  
**BS**, Biochemistry and Cell  
Biology, Rice University,  
Houston, TX (2010)  
**BA**, Economics, Rice  
University, Houston, TX  
(2010)

**FUN FACT:**

I was a Division I swimmer  
in college.



**Gen Li**  
Statistical Analyst

**EDUCATION:**

**MS**, Applied Statistics, West Chester University, West Chester, PA (2017)

**MS**, Chemistry, University of New Mexico, Albuquerque, NM (2014)

**FUN FACT:**

Grand Canyon is the first national park I visited, I was deeply attracted by the awesome experience that comes from hiking down the canyon. After that, I decided to visit all the national parks in the United States and collect the stamps and stickers for my NP's passport. I have about 30 so far.



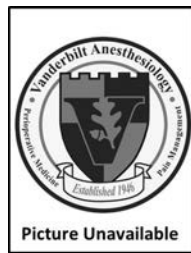
**Valerie Lineberry**  
Research Nurse Specialist

**EDUCATION:**

**RN**, Applied Science Nursing, Tennessee State University, Nashville, TN (1994)

**FUN FACT:**

I love music and movies.



**Zameerudin Lodhi**  
Business Intelligence Analyst

**EDUCATION:**

**MS**, Business Intelligence & Analytics, Middle Tennessee State University, Murfreesboro, TN (2015)

**BBA**, Computer Information Systems, Middle Tennessee State University, Murfreesboro, TN (2015)

**FUN FACT:**

I play cricket. I am pretty good and have won several awards and championships.



**Bevan Londergan, MD**  
Assistant Professor  
Pediatric Cardiac Anesthesiology

**EDUCATION:**

**Fellowship**, Pediatric Anesthesia, Mayo Clinic, Jacksonville, FL (2012)

**Residency**, Anesthesiology, University of Connecticut School of Medicine, Farmington, CT (2011)

**Residency**, Preliminary Medicine, Bystate Medical Center, Springfield, MA (2008)

**MD**, University of Connecticut School of Medicine, Farmington, CT (2007)

**FUN FACT:**

I enjoy travel, food, swimming, running, and tennis.



**James Lozada, DO**  
Assistant Professor Obstetric Anesthesiology

**EDUCATION:**

**Fellowship**, Obstetric Anesthesia, Northwestern University Feinberg School of Medicine, Chicago, IL (2018)

**Residency**, Anesthesiology, University of Texas Medical Branch, Galveston, TX (2017)

**DO**, Lake Erie College of Osteopathic Medicine, Greensburg, PA (2013)

**FUN FACT:**

I worked for six years as an on-air television reporter. I covered the shuttle Columbia disaster and return flight of Discovery, interviewed four former U.S. Presidents, and told hundreds of stories to evening viewers.



**James McCarthy**  
Research Assistant

**EDUCATION:**

**BA**, Biology, Berea College, Berea, KY (2018)

**FUN FACT:**

I was born with two extra teeth behind my wisdoms called supernumeraries.



**John Meyer, MD**  
Fellow  
Pediatric Anesthesiology

**EDUCATION:**

**Residency**, Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2018)

**MD**, University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC (2014)

**BA**, Comparative Literature, University of North Carolina, Chapel Hill, NC (2009)

**FUN FACT:**

I was a comparative literature major.



**Carlos Miranda, MD**  
Fellow  
Cardiothoracic Anesthesiology

**EDUCATION:**

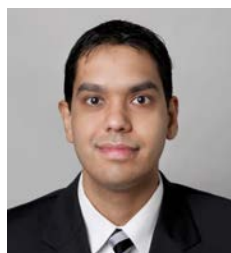
**Residency**, Anesthesiology, New York University, New York, NY (2018)

**MD**, New York University, New York, NY (2014)

**BA**, Chemistry, Florida International University, Miami, FL (2008)

**FUN FACT:**

My favorite animal is the manatee



**Puneet Mishra, MD**  
Assistant Professor  
Pain Management

**EDUCATION:**

**Fellowship**, Interventional Pain, Vanderbilt University Medical Center, Nashville, TN (2018)

**Residency**, Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2017)

**MD**, Vanderbilt University School of Medicine, Nashville, TN (2013)

**FUN FACT:**

FC Barcelona Soccer Fan.



**Robert Mullican**  
Certified Registered Nurse Anesthetist

**EDUCATION:**

**MS**, Nurse Anesthesia, University of Tennessee at Chattanooga, Chattanooga, TN (2018)

**BS**, Middle Tennessee State University, Murfreesboro, TN (2012)

**FUN FACT:**

I am a Nashville native, and my wife and I have a 2 year old golden doodle named Stella. We enjoy hiking, going to the lake, and playing tennis.



**Hai Nguyen, DO, MPH**  
Fellow  
Interventional Pain

**EDUCATION:**

**Residency**, Anesthesiology, The University of Kansas School of Kansas, Wichita, KS (2018)

**DO**, Oklahoma State University College of Osteopathic Medicine, Tulsa, OK (2014)

**MPH**, University of Oklahoma Health Sciences Center, Oklahoma City, OK (2009)

**BS**, Zoology, University of Oklahoma, Norman, OK (2006)

**FUN FACT:**

I am the owner of a heating and air conditioning company.



**Jon Niconchuk, MD**  
Fellow  
Pediatric Anesthesiology

**EDUCATION:**

**Residency**, Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2018)

**MD**, Harvard Medical School, Cambridge, MA (2014)

**BA**, Spanish and Chemistry College of the Holy Cross, Worcester, MA (2009)

**FUN FACT:**

My grandfather invented the first tire plug for tubeless tires, and it remains our family business to this day.





Alexander Paladino, MD  
Fellow  
Cardiothoracic Anesthesiology

**EDUCATION:**

**Residency,** Anesthesiology, San Antonio Uniformed Services Health Education Consortium, San Antonio, TX (2018)

**MD,** University of Colorado School of Medicine, Aurora, CO (2014)

**BS,** Biological Sciences, United States Air Force Academy, Colorado Springs, CO (2010)

**FUN FACT:**

Winner of the “worst mustache” award during the residency’s annual “Mustache March” competition.



Gregory Panomitros, MD  
Associate Professor  
Multispecialty Adult  
Anesthesiology

**EDUCATION:**

**Residency,** Anesthesiology, University of Illinois, Chicago, IL (1997)

**MD,** University of Illinois, Chicago, IL (1993)

**FUN FACT:**

Previously Head of Anesthesia for a private hospital. Strong Administrative skills. Associate Professor at University of Texas Medical Branch for 10 years. I practice Brazilian Jiu Jitsu, I love my German Shepherd dogs, practice yoga and bicycling.



Charles Plant, MD, PhD  
Assistant Professor  
Multispecialty Adult  
Anesthesiology

**EDUCATION:**

**Residency,** Anesthesiology, St. Elizabeth’s Medical Center, Boston, MA (2009)

**MD,** Tufts University School of Medicine, Boston, MA (2001)

**PhD,** Tufts University School of Medicine, Boston, MA (2001)

**FUN FACT:**

Eagle Scout.



Claire Posey  
Associate Program Manager

**EDUCATION:**

**MA,** International Development, American University, Washington, DC (2014)

**BA,** Human Rights, Birmingham-Southern College, Birmingham, AL (2010)

**FUN FACT:**

I served as a US Peace Corps Volunteer in coastal Ecuador from 2010-2012.



Jason Quevreaux, MD  
Fellow  
Interventional Pain

**EDUCATION:**

**Residency,** Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2018)

**MD,** Louisiana State University School of Medicine, Shreveport, LA (2014)

**BA,** Biochemistry, Psychology, University of Mississippi, Oxford, MS (2006)

**FUN FACT:**

I enjoy cooking.



Kimberly Rengel, MD  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Residency,** Anesthesiology, Vanderbilt University Medical Center, Nashville, TN (2018)

**MD,** University of Texas Medical School at Houston, Houston, TX (2014)

**BS,** Biology, Southern Methodist University, Dallas, TX (2010)

**FUN FACT:**

I was born and raised in Montana - I do know how to ride a horse, I still have our family’s brand, and I still drive a truck when I go home.



Andrew Reese, MD  
Assistant Professor of  
Clinical Anesthesiology  
Anesthesiology Critical Care  
Medicine

**EDUCATION:**

**Fellowship,** Critical Care Medicine, University of Michigan, Ann Arbor, MI (2018)

**Residency,** Anesthesiology, University of Michigan, Ann Arbor, MI (2017)

**MD,** Northwestern University, Chicago, IL (2013)

**FUN FACT:**

I once took a vacation to Costa Rica with nothing booked except my flight. I just figured it out as I went.



Benjamin Roberts, MD  
Fellow  
Pediatric Anesthesiology

**EDUCATION:**

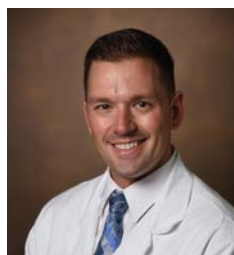
**Residency,** Anesthesiology, University of Alabama School of Medicine, Birmingham, AL (2018)

**MD,** University of Alabama School of Medicine, Birmingham, AL (2014)

**BS,** Chemistry, Birmingham-Southern College, Birmingham, AL (2010)

**FUN FACT:**

I once broke both of my arms at the same time while mountain biking.



Robert Schoaps, MD  
Fellow  
Anesthesiology Critical Care  
Medicine

**EDUCATION: Residency,**

Anesthesiology, Penn State University, Hershey, PA (2018)

**MD,** University of Oklahoma, Oklahoma City, OK (2014)

**BS,** Zoology & Biomedical Science, University of Oklahoma, Norman, OK (2009)

**FUN FACT:**

I married my high school sweetheart, enjoy home improvement projects, and have crippling anxiety about situations requiring me to produce interesting facts about myself.



Amanda Shakal, DO  
Instructor  
Multispecialty Adult  
Anesthesiology

**EDUCATION:**

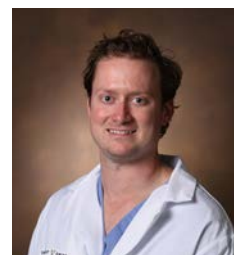
**Residency,** Anesthesiology, University of Texas Health Science Center, San Antonio, TX (2018)

**DO,** Texas College of Osteopathic Medicine, University of North Texas Health Science Center, Fort Worth, TX (2014)

**MS,** Medical Sciences, University of North Texas Health Science Center, Fort Worth, TX (2010)

**FUN FACT:**

I enjoy running. I’ve completed four half marathons.



Michael Singleton, MD  
Assistant Professor of Clinical  
Anesthesiology  
Multispecialty Adult  
Anesthesiology

**EDUCATION:**

**Fellowship,** Regional Anesthesia, Hospital of Special Surgery, New York, NY (2018)

**Residency,** Anesthesiology, University of Utah, Salt Lake City, UT (2017)

**MD,** Indiana University School of Medicine, Indianapolis, IN (2013)

**FUN FACT:**

I am an above average dancer.



Nicholas Statzer, MD  
Fellow  
Regional Anesthesia and  
Acute Pain Medicine

**EDUCATION:**

**Residency,** Anesthesiology, Cleveland Clinic Foundation, Cleveland, OH (2018)

**MD,** Michigan State University College of Human Medicine, Grand Rapids, MI (2014) **BS,** Biomedical Engineering, Saint Louis University, St. Louis, MO (2009)

**FUN FACT:**

Former member of NCAA Division I swimming and diving at Saint Louis University.



**Genevieve Staudt, MD**  
Assistant Professor Pediatric  
Cardiac Anesthesiology

**EDUCATION:**

**Fellowship**, Pediatric Anesthesiology, Monroe Carell Jr. Children's Hospital at Vanderbilt, Nashville, TN (2018)  
**Fellowship**, Adult Cardiothoracic Anesthesiology, Massachusetts General Hospital, Boston, MA (2017)  
**Residency**, Anesthesiology, Massachusetts General Hospital, Boston, MA (2016)  
**MD**, University of Iowa, Carver College of Medicine, Iowa City, IA (2012)

**FUN FACT:**

My husband and I met in the Anesthesia Library during my residency orientation.



**Amanda Stone, PhD**  
Research Assistant Professor

**EDUCATION:**

**PhD**, Clinical Psychology, Vanderbilt University, Nashville, TN (2017)  
**MS**, Clinical Psychology, Vanderbilt University, Nashville, TN (2011)  
**BA**, Psychology, Cedarville University, Cedarville, OH (2010)

**FUN FACT:**

I grew up in Austin, TX and love Tex-Mex food (especially Chuy's ... they catered my wedding).



**Kevin Strange, PhD**  
Research Professor

**EDUCATION:**

**PhD**, Zoology, University of British Columbia, Vancouver, British Columbia, Canada (1983)  
**MA**, Zoology, University of California, Davis, CA (1978)  
**BS**, Zoology, University of California, Davis, CA (1977)

**FUN FACT:**

Avid gardener.



**Mallika Thampy, MD**  
Fellow  
Obstetric Anesthesiology

**EDUCATION:**

**Residency**, Anesthesiology, William Beaumont Hospital, Royal Oak, MI (2018)  
**MD**, University of Missouri-Kansas School of Medicine, Kansas City, MO (2012)  
**BA**, Liberal Arts, University of Missouri-Kansas City, Kansas City, MO (2011)

**FUN FACT:**

I am very good at spelling.



**Jeremy Walco, MD**  
Assistant Professor  
Anesthesiology Critical Care Medicine

**EDUCATION:**

**Fellowship**, Critical Care Medicine, Vanderbilt University Medical Center, Nashville, TN (2018)  
**Residency**, Anesthesiology, New York Presbyterian Hospital/Columbia University, New York, NY (2017)  
**MD**, University of Louisville, Louisville, KY (2013)

**FUN FACT:**

In my free time I like to play my Gibson Les Paul electric guitar.



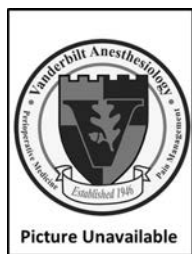
**Keenan Williams**  
Certified Registered Nurse  
Anesthetist

**EDUCATION:**

**MSN**, Nurse Anesthesia, Middle TN School of Anesthesia, Madison, TN (2010)  
**BSN**, Murray State University, Murray, KY (2000)

**FUN FACT:**

I like to tap dance and am a coal miner's daughter.



**Toshiki Yamada, PhD**  
Research Fellow

**EDUCATION:**

**PhD**, Life and Environmental Science, Toyama University, Toyama, Japan (2007)  
**MS**, Biology, Toyama University, Toyama, Japan (2004)  
**BS**, Biology, Toyama University, Toyama, Japan (2002)

**FUN FACT:**

I have researched on several channels and transporters using electrophysiological techniques, such as patch-clamp, for over 15 years. I am a big fan of the professional soccer team in my home town.



**Jason Zatkoff, DO**  
Fellow  
Regional Anesthesia and Acute Pain Medicine

**EDUCATION:**

**Residency**, Anesthesiology, Saint Louis University Hospital, Saint Louis, MO (2018)  
**DO**, Kansas City University of Medicine and Biosciences, Kansas City, MO (2014)  
**BS**, Biochemistry and Molecular Biology, Michigan State University, East Lansing, MI (2008)

**FUN FACT:**

I enjoy playing tennis in my free time and dealing with my three dogs.



## Recent Publications

Abola RE, Bennett-Guerrero E, Kent ML, Feldman LS, Fiore JF Jr, Shaw AD, Thacker JKM, Gan TJ, Miller TE, Hedrick TL, **McEvoy MD**, Mythen MG, Bergamaschi R, Gupta R, Holubar SD, Senagore AJ, Wischmeyer PE, Carli F, Evans DC, Guilbert S, Kozar R, Pryor A, Thiele RH, Everett S, Grocott M; Perioperative Quality Initiative (POQI) 2 Workgroup. American Society for Enhanced Recovery and Perioperative Quality Initiative Joint Consensus Statement on Patient-Reported Outcomes in an Enhanced Recovery Pathway. *Anesth Analg*. 2018 Jun;126(6):1874-1882. doi: 10.1213/ANE.0000000000002758. PubMed PMID: 29293180.

Adams AS, Wannemuehler TJ, Hull B, Wu J, Chandra RK, VonWahlde K, Shotwell MS, **Harvey S, Higgins M, McQueen K**, Turner JH. Randomized controlled trial comparing the supraglottic airway to use of an endotracheal tube in sinonasal surgery. *Int Forum Allergy Rhinol*. 2018 May 2. doi: 10.1002/alr.22132. [Epub ahead of print] PubMed PMID: 29719126.

Allos BM, Yakes EA, Fleming A, Cutrer WB, **Pilla M**, Clair W, Fowler M, Miller B. Framing Medicine as a Moral Practice: An Introductory Medical School Course. *Acad Med*. 2018 May 29. doi: 10.1097/ACM.0000000000002301. [Epub ahead of print] PubMed PMID: 29847324.

**Bhutiani M**, Jablonski PM, **Ehrenfeld JM, McEvoy MD, Fowler LC, Wanderer JP**. Decision Support Tool Improves Real and Perceived Anesthesiology Resident Relief Equity. *Anesth Analg*. 2018 Jun 5. doi: 10.1213/ANE.0000000000003479. [Epub ahead of print] PubMed PMID: 29878944.

**Bohannon JK, Sherwood ER**. What's New in Shock, July 2018? *Shock*. 2018 Jul;50(1):1-4. doi: 10.1097/SHK.0000000000001153. PubMed PMID: 29889806.

Bradham TS, Sponsler KC, Watkins SC, **Ehrenfeld JM**. Creating a Quality Improvement Course for Undergraduate Medical Education: Practice What You Teach. *Acad Med*. 2018 May 2. doi: 10.1097/ACM.0000000000002253. [Epub ahead of print] PubMed PMID: 29727320.

Cannesson M, **Rice MJ**. Insight Into Our Technologies: A New Series of Manuscripts in Anesthesia & Analgesia. *Anesth Analg*. 2018 Jan;126(1):25-26. doi: 10.1213/ANE.0000000000002392. PubMed PMID: 29252481.

Chung CP, Callahan ST, Cooper WO, Dupont WD, Murray KT, **Franklin AD**, Hall K, Dudley JA, Stein CM, Ray WA. Outpatient Opioid Prescriptions for Children and Opioid-Related Adverse Events. *Pediatrics*. 2018 Jul 16. pii: e20172156. doi: 10.1542/peds.2017-2156. [Epub ahead of print] PubMed PMID: 30012559.

Cooke AL, Morris J, Melchior JT, Street SE, Jerome WG, Huang R, Herr AB, **Smith LE**, Segrest JP, Remaley AT, Shah AS, Thompson TB, Davidson WS. A Thumbwheel Mechanism for APOA1 Activation of LCAT Activity in HDL. *J Lipid Res*. 2018 May 17. pii: jlr.M085332. doi: 10.1194/jlr.M085332. [Epub ahead of print] PubMed PMID: 29773713.

Corda DM, Robards CB, **Rice MJ**, Morey TE, Gravenstein N, Vasilopoulos T, Brull SJ. Clinical application of limiting laryngeal mask airway cuff pressures utilizing inflating syringe intrinsic recoil. *Rom J Anaesth Intensive Care*. 2018 Apr;25(1):11-18. doi: 10.21454/rjaic.7518.251.cuf. PubMed PMID: 29756057; PubMed Central PMCID: PMC5931177.

Dahlman KB, **Weinger MB**, Lomis KD, Nanney L, Osheroff N, Moore DE Jr., Estrada L, Cutrer WB. Integrating Foundational Sciences in a Clinical Context in the Post-Clerkship Curriculum. *Med Sci Educ*. 2018 Mar;28(1):145-154. Epub 2018 Jan 2. PubMed PMID: 29632705; PubMed Central PMCID: PMC5889049.

de la Coba P, **Bruehl S**, Gálvez-Sánchez CM, Reyes Del Paso GA. SLOWLY REPEATED EVOKED PAIN (SREP) AS A MARKER OF CENTRAL SENSITIZATION IN FIBROMYALGIA: DIAGNOSTIC ACCURACY AND RELIABILITY IN COMPARISON WITH TEMPORAL SUMMATION OF PAIN. *Psychosom Med*. 2018 May 1. doi: 10.1097/PSY.0000000000000599. [Epub ahead of print] PubMed PMID: 29742751.

de la Coba P, **Bruehl S**, Garber J, Smith CA, Walker LS. Is Resolution of Chronic Pain Associated With Changes in Blood Pressure-related Hypoalgesia? *Ann Behav Med*. 2018 May 31;52(7):552-559. doi: 10.1093/abm/kax021. PubMed PMID: 29860365.

**Deegan R**, Ellis CR, Bennett JM. Left Atrial Appendage Occlusion Devices. *Semin Cardiothorac Vasc Anesth*. 2018 Jul 1;1089253218789159. doi: 10.1177/1089253218789159. [Epub ahead of print] PubMed PMID: 30020024.

**Delpire E**, Gagnon KB. Na(+) -K(+) -2Cl(-) Cotransporter (NKCC) Physiological Function in Nonpolarized Cells and Transporting Epithelia. *Compr Physiol*. 2018 Mar 25;8(2):871-901. doi: 10.1002/cphy.c170018. PubMed PMID: 29687903.

Devlin JW, **Pandharipande PP**. Light Sedation Is the Goal: Making the Evidence Heavier. *Crit Care Med*. 2018 Jun;46(6):1003-1004. doi: 10.1097/CCM.0000000000003142. PubMed PMID: 29762397.

Devlin JW, Skrobik Y, Rochwerg B, Nunnally ME, Needham DM, Gelinas C, **Pandharipande PP**, Slooter AJC, Watson PL, Weinhouse GL, Kho ME, Centofanti J, Price C, Harmon L, Misak CJ, Flood PD, Alhazzani W. Methodologic Innovation in Creating Clinical Practice Guidelines: Insights From the 2018 Society of Critical Care Medicine Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption Guideline Effort. *Crit Care Med*. 2018 Jul 6. doi: 10.1097/CCM.0000000000003298. [Epub ahead of print] PubMed PMID: 29985807.

Dexter F, Epstein RH, Ledolter J, **Wanderer JP**. Interchangeability of counts of cases and hours of cases for quantifying a hospital's change in workload among four-week periods of 1 year. *J Clin Anesth*. 2018 May 16. pii: S0952-8180(18)30295-2. doi: 10.1016/j.jclinane.2018.04.008. [Epub ahead of print] PubMed PMID: 29778415.

**Ehrenfeld JM**, **Wanderer JP**, **Sandberg WS**. Anesthesia Care Handovers and Risk of Adverse Outcomes. *JAMA*. 2018 Jun 5;319(21):2236-2237. doi: 10.1001/jama.2018.4438. PubMed PMID: 29872854.

Ellis CR, Metawee M, Piana RN, Bennett JM, **Pretorius M**, **Deegan RJ**. Feasibility of Left Atrial Appendage Device Closure Following Chronically Failed Surgical Ligation. *Heart Rhythm*. 2018 Jul 13. pii: S1547-5271(18)30694-5. doi: 10.1016/j.hrthm.2018.07.017. [Epub ahead of print] PubMed PMID: 30012348.

Fensterheim BA, Young JD, Luan L, Kleinbard RR, Stothers CL, **Patil NK**, McAtee-Pereira AG, Guo Y, Trenary I, **Hernandez A**, Fults JB, Williams DL, **Sherwood ER**, **Bohannon JK**. The TLR4 Agonist Monophosphoryl Lipid A Drives Broad Resistance to Infection via Dynamic Reprogramming of Macrophage Metabolism. *J Immunol*. 2018 Apr 23. pii: ji1800085. doi: 10.4049/jimmunol.1800085. [Epub ahead of print] PubMed PMID: 29686054.

**Freundlich RE**, Maile MD, Sferra JJ, Jewell ES, Kheterpal S, Engoren M. Complications Associated With Mortality in the National Surgical Quality Improvement Program Database. *Anesth Analg*. 2018 Jul;127(1):55-62. doi: 10.1213/ANE.0000000000002799. PubMed PMID: 29324497.

**Freundlich RE**, **Pandharipande P**, **Ehrenfeld JM**. A Call for Electronic Health Record-based Data Sharing for Clinical Trials in Critical Care. *J Med Syst*. 2018 May 25;42(7):115. doi: 10.1007/s10916-018-0984-8. PubMed PMID: 29802451.

Gollapudy S, Poetker DM, Sidhu J, **Riess ML**. Total intravenous versus inhaled anesthesia in transsphenoidal tumor surgery. *Am J Otolaryngol*. 2018 Jul 5. pii: S0196-0709(18)30335-1. doi: 10.1016/j.amjoto.2018.06.018. [Epub ahead of print] PubMed PMID: 30017373.

Gonzales G, **Ehrenfeld JM**. The Association between State Policy Environments and Self-Rated Health Disparities for Sexual Minorities in the United States. *Int J Environ Res Public Health*. 2018 Jun 1;15(6). pii: E1136. doi: 10.3390/ijerph15061136. PubMed PMID: 29857580.



Han JH, **Hayhurst CJ**, Chandrasekhar R, **Hughes CG**, Vasilevskis EE, Wilson JE, Schnelle JF, Dittus RS, Ely EW. Delirium's Arousal Subtypes and Their Relationship with 6-Month Functional Status and Cognition. *Psychosomatics*. 2018 May 17. pii: S0033-3182(18)30221-4. doi: 10.1016/j.psym.2018.05.003. [Epub ahead of print] PubMed PMID: 29929733.

**Hayhurst CJ**, Jackson JC, Archer KR, Thompson JL, Chandrasekhar R, Hughes CG. Pain and Its Long-term Interference of Daily Life After Critical Illness. *Anesth Analg*. 2018 Apr 11. doi: 10.1213/ANE.0000000000003358. [Epub ahead of print] PubMed PMID: 29649027.

Hedrick TL, **McEvoy MD**, Mythen MMG, Bergamaschi R, Gupta R, Holubar SD, Senagore AJ, Gan TJ, Shaw AD, Thacker JKM, Miller TE, Wischmeyer PE, Carli F, Evans DC, Guilbert S, Kozar R, Pryor A, Thiele RH, Everett S, Grocott M, Abola RE, Bennett-Guerrero E, Kent ML, Feldman LS, Fiore JF Jr; Perioperative Quality Initiative (POQI) 2 Workgroup. American Society for Enhanced Recovery and Perioperative Quality Initiative Joint Consensus Statement on Postoperative Gastrointestinal Dysfunction Within an Enhanced Recovery Pathway for Elective Colorectal Surgery. *Anesth Analg*. 2018 Jun;126(6):1896-1907. doi: 10.1213/ANE.0000000000002742. PubMed PMID: 29293183.

Hofer IS, Levin MA, Simpao AF, McCormick PJ, **Rothman BS**. Anesthesia Informatics Grows Up. *Anesth Analg*. 2018 Jul;127(1):18-20. doi: 10.1213/ANE.0000000000003431. PubMed PMID: 29912056.

Holroyd LE, **Anders S**, Robinson JR, Jackson GP. Use of the Multidimensional Health Locus of Control to Predict Information-Seeking Behaviors and Health-Related Needs in Pregnant Women and Caregivers. *AMIA Annu Symp Proc*. 2018 Apr 16;2017:902-911. eCollection 2017. PubMed PMID: 29854157; PubMed Central PMCID: PMC5977701.

Hubers SA, Wilson JR, Yu C, Nian H, Grouzmann E, Eugster P, Shibao CA, **Billings FT 4th**, Jafarian Kerman S, Brown NJ. DPP (Dipeptidyl Peptidase)-4 Inhibition Potentiates the Vasoconstrictor Response to NPY (Neuropeptide Y) in Humans During Renin-Angiotensin-Aldosterone System Inhibition. *Hypertension*. 2018 Jul 9. pii: HYPERTENSIONAHA.118.11498. doi: 10.1161/HYPERTENSIONAHA.118.11498. [Epub ahead of print] PubMed PMID: 29987109.

Joffe ME, Turner BD, **Delpire E**, **Grueter BA**. Genetic loss of GluN2B in D1-expressing cell types enhances long-term cocaine reward and potentiation of thalamo-accumbens synapses. *Neuropsychopharmacology*. 2018 Jun 25. doi:10.1038/s41386-018-0131-8. [Epub ahead of print] PubMed PMID: 29982266.

Kassebaum NJ, **McQueen K**. The Role of Cost-Effectiveness Analysis in Global Anesthesia. *Anesth Analg*. 2018 Apr;126(4):1397-1399. doi: 10.1213/ANE.0000000000002738. PubMed PMID: 29309321.

Keebler ME, Haddad EV, Choi CW, **McGrane S**, Zalawadiya S, Schlendorf KH, Brinkley DM, Danter MR, Wigger M, Menachem JN, Shah A, Lindenfeld J. Venoarterial Extracorporeal Membrane Oxygenation in Cardiogenic Shock. *JACC Heart Fail*. 2018 Apr 5. pii: S2213-1779(18)30128-8. doi: 10.1016/j.jchf.2017.11.017. [Epub ahead of print] Review. PubMed PMID: 29655828.

**Kharade SV**, Kurata H, Bender A, Blobaum AL, Figueroa EE, Duran AM, Kramer M, Days E, Vinson P, Flores D, Satlin LM, Meiler J, Weaver CD, Lindsley CW, Hopkins CR, Denton JS. Discovery, characterization, and effects on renal fluid and electrolyte excretion of the Kir4.1 potassium channel pore blocker, VU0134992. *Mol Pharmacol*. 2018 Jun 12. pii: mol.118.112359. doi: 10.1124/mol.118.112359. [Epub ahead of print] PubMed PMID: 29895592.

Kingeter AJ, **Kingeter MA**, Shaw AD. Fluids and Organ Dysfunction: A Narrative Review of the Literature and Discussion of 5 Controversial Topics. *J Cardiothorac Vasc Anesth*. 2018 Mar 13. pii: S1053-0770(18)30207-6. doi: 10.1053/j.jvca.2018.03.017. [Epub ahead of print] PubMed PMID: 29685796.

Kingeter AJ, Shotwell MS, Parmley CL, **Pandharipande PP**, Buntin MB. A Survey of Charge Sensitivity and Charge Awareness Among Intensive Care Unit Providers in a Large Academic Medical Center. *Anesth Analg*. 2018 Jul 21. doi: 10.1213/ANE.0000000000003679. [Epub ahead of print] PubMed PMID: 30044296.

**Kohorst K, Pretorius M**. Future Technology of Mitral Valve Repair and Replacement for Mitral Valve Disease. *Semin Cardiothorac Vasc Anesth*. 2018 Jun 1:1089253218779787. doi: 10.1177/1089253218779787. [Epub ahead of print] PubMed PMID: 29897014.

Kougias P, **Tiwari V**, Sharath SE, Garcia A, Pathak A, Chen M, Ramsey D, Barshes NR, Berger DH. A Statistical Model-driven Surgical Case Scheduling System Improves Multiple Measures of Operative Suite Efficiency: Findings From a Single-center, Randomized Controlled Trial. *Ann Surg*. 2018 Apr 24. doi: 10.1097/SLA.0000000000002763. [Epub ahead of print] PubMed PMID: 29697450.

Koumangoye R, Omer S, **Delpire E**. Mistargeting of a truncated Na-K-2Cl cotransporter in epithelial cells. *Am J Physiol Cell Physiol*. 2018 May 2. doi: 10.1152/ajpcell.00130.2018. [Epub ahead of print] PubMed PMID: 29719172.

Kumah-Crystal YA, Pirtle CJ, Whyte HM, Goode ES, **Anders SH**, Lehmann CU. Electronic Health Record Interactions through Voice: A Review. *Appl Clin Inform*. 2018 Jul;9(3):541-552. doi: 10.1055/s-0038-1666844. Epub 2018 Jul 18. PubMed PMID: 30040113; PubMed Central PMCID: PMC6051768.

**Kynes JM, Walters CB**, Pinto E, Jeque E, **McQueen KAK**. A profile of surgical burden and anaesthesia services at Mozambique's Central Hospital: A review. *Int J Surg*. 2018 May 3;54(Pt A):285-289. doi: 10.1016/j.ijsu.2018.04.055. [Epub ahead of print] Review. PubMed PMID: 29730073.

Liang Y, **Rice MJ**. Assessing Glucose Meter Accuracy: The Details Matter! *Anesthesiology*. 2018 May;128(5):1044-1045. doi: 10.1097/ALN.0000000000002149. PubMed PMID: 29664784.

Lillis TA, Burns J, Aranda F, Purim-Shem-Tov YA, **Bruehl S**, Beckham JC, Hobfoll SE. PTSD Symptoms and Acute Pain in the Emergency Department: The Roles of Vulnerability and Resilience Factors among Low-income, Inner-city Women. *Clin J Pain*. 2018 May 4. doi: 10.1097/AJP.0000000000000626. [Epub ahead of print] PubMed PMID: 29734223.

Lindroth H, Bratzke L, Purvis S, Brown R, Coburn M, Mrkobrada M, Chan MTV, Davis DHJ, **Pandharipande P**, Carlsson CM, Sanders RD. Systematic review of prediction models for delirium in the older adult inpatient. *BMJ Open*. 2018 Apr 28;8(4):e019223. doi: 10.1136/bmjopen-2017-019223. PubMed PMID: 29705752; PubMed Central PMCID: PMC5931306.

Long MT, **Rice MJ**, Coursin DB. Glucose Monitoring in the ICU: What Is Really Needed? *Crit Care Med*. 2018 Aug;46(8):1372-1374. doi: 10.1097/CCM.0000000000003214. PubMed PMID: 30004967.

**Lorinc A, Kynes JM, Walters CB**. The painful publishing process: A request to simplify bureaucratic requirements. *Science Editor*. 2018. Epub 2018 Apr 9. <https://www.csescienceeditor.org/article/the-painful-publishing-process-a-request-to-simplify-bureaucratic-requirements/>

Marra A, **Pandharipande PP**, Girard TD, Patel MB, Hughes CG, Jackson JC, Thompson JL, Chandrasekhar R, Ely EW, Brummel NE. Cooccurrence of Post-Intensive Care Syndrome Problems Among 406 Survivors of Critical Illness. *Crit Care Med*. 2018 May 21. doi: 10.1097/CCM.0000000000003218. [Epub ahead of print] PubMed PMID: 29787415.

**McEvoy MD**, Thies KC, Einav S, Ruetzler K, Moitra VK, Nunnally ME, **Banerjee A**, Weinberg G, Gabrielli A, Maccioli GA, Dobson G, O'Connor MF. In Response. *Anesth Analg*. 2018 Jul 13. doi: 10.1213/ANE.0000000000003665. [Epub ahead of print] PubMed PMID: 30015654.



**McEvoy MD**, Thies KC, Einav S, Ruetzler K, Moitra VK, Nunnally ME, **Banerjee A**, Weinberg G, Gabrielli A, Maccioli GA, Dobson G, O'Connor MF. Cardiac Arrest in the Operating Room: Part 2-Special Situations in the Perioperative Period. *Anesth Analg*. 2018 Mar;126(3):889-903. doi: 10.1213/ANE.0000000000002595. PubMed PMID: 29200065.

**McQueen K**, Oodit R, Derbew M, Banguti P, Ljungqvist O. Authors' Reply: Enhanced Recovery After Surgery for Low and Middle-Income Countries. *World J Surg*. 2018 May 1. doi: 10.1007/s00268-018-4652-4. [Epub ahead of print] PubMed PMID: 29717348.

**McQueen KAK**. Women in Anesthesia. *Int Anesthesiol Clin*. 2018 Summer;56(3):1-4. doi: 10.1097/AIA.0000000000000189. PubMed PMID: 29889121.

**Miles M**, Alvis BD, Hocking K, Baudenbacher F, Guth C, Lindenfeld J, Brophy C, **Eagle S**. Peripheral Intravenous Volume Assessment (PIVA) for Quantitating Volume Overload in Patients Hospitalized with Acute Decompensated Heart Failure-a Pilot Study. *J Card Fail*. 2018 May 16. pii: S1071-9164(18)30187-8. doi: 10.1016/j.cardfail.2018.05.003. [Epub ahead of print] PubMed PMID: 29777760.

**Miller A**, Koola JD, Matheny ME, Ducom JH, **Slagle JM**, Groessl EJ, Minter FF, Garvin JH, Weinger MB, Ho SB. Application of contextual design methods to inform targeted clinical decision support interventions in sub-specialty care environments. *Int J Med Inform*. 2018 Sep;117:55-65. doi: 10.1016/j.ijmedinf.2018.05.005. Epub 2018 May 30. PubMed PMID: 30032965.

Moitra VK, Einav S, Thies KC, Nunnally ME, Gabrielli A, Maccioli GA, Weinberg G, **Banerjee A**, Ruetzler K, Dobson G, **McEvoy M**, O'Connor MF. Cardiac Arrest in the Operating Room: Resuscitation and Management for the Anesthesiologist Part 1. *Anesth Analg*. 2018 Jul 21. doi: 10.1213/ANE.0000000000003552. [Epub ahead of print] PubMed PMID: 30044297. (Letter to the Editor)

Molon ME, Castro REV, Foronda FAK, Magalhães-Barbosa MC, Robaina JR, Piva JP, Garcia PCR, Prata-Barbosa A, Cheniaux E, **Smith HAB**. Translation and cross-cultural adaptation of the Pediatric Confusion Assessment Method for the Intensive Care Unit into Brazilian Portuguese for the detection of delirium in pediatric intensive care units. *Rev Bras Ter Intensiva*. 2018 Mar;30(1):71-79. doi: 10.5935/0103-507x.20180013. English, Portuguese. PubMed PMID: 29742225; PubMed Central PMCID: PMC5885234.

Oprea AD, **Lombard FW**, **Kertai MD**. Perioperative  $\beta$ -Adrenergic Blockade in Noncardiac and Cardiac Surgery: A Clinical Update. *J Cardiothorac Vasc Anesth*. 2018 Apr 26. pii: S1053-0770(18)30278-7. doi: 10.1053/j.jvca.2018.04.045. [Epub ahead of print] Review. PubMed PMID: 29934209.

Pujic B, Kendrisic M, Shotwell M, Shi Y, **Baysinger CL**. A Survey of Enhanced Recovery After Surgery Protocols for Cesarean Delivery in Serbia. *Front Med (Lausanne)*. 2018 Apr 17;5:100. doi: 10.3389/fmed.2018.00100. eCollection 2018. PubMed PMID: 29719833; PubMed Central PMCID: PMC5913329.

**Raymond BL**, Kook BT, **Richardson MG**. The opioid epidemic and pregnancy: implications for anesthetic care. *Curr Opin Anaesthesiol*. 2018 Mar 29. doi: 10.1097/ACO.0000000000000590. [Epub ahead of print] PubMed PMID: 29601303.

Reddy IA, Smith NK, Erreger K, Ghose D, Saunders C, Foster DJ, Turner B, Poe A, Albaugh VL, McGuinness O, Hackett TA, **Grueter BA**, Abumrad NN, Flynn CR, Galli A. Bile diversion, a bariatric surgery, and bile acid signaling reduce central cocaine reward. *PLoS Biol*. 2018 Jul 26;16(7):e2006682. doi: 10.1371/journal.pbio.2006682. eCollection 2018 Jul. PubMed PMID: 30048457.

**Rengel KF**, **Pandharipande PP**, **Hughes CG**. Postoperative delirium. *Presse Med*. 2018 Apr 18. pii: S0755-4982(18)30157-X. doi: 10.1016/j.lpm.2018.03.012. [Epub ahead of print] PubMed PMID: 29680484.

- Reynolds WS, Kowalik C, Cohn J, Kaufman M, Wein A, Dmochowski R, **Bruehl S**. Women undergoing third line overactive bladder treatment demonstrate elevated thermal temporal summation. *J Urol*. 2018 May 7. pii: S0022-5347(18)43103-5. doi: 10.1016/j.juro.2018.05.007. [Epub ahead of print] PubMed PMID: 29746857.
- Rice MJ**, Gravenstein N, Morey TE. Error: Blood Pressure and Irmageddon. *Anesth Analg*. 2018 Apr;126(4):1112-1115. doi: 10.1213/ANE.0000000000002768. PubMed PMID: 29547416.
- Richardson MG, Raymond BL, Baysinger CL**, Kook BT, Chestnut DH. A qualitative analysis of parturients' experiences using nitrous oxide for labor analgesia: It is not just about pain relief. *Birth*. 2018 Jul 22. doi: 10.1111/birt.12374. [Epub ahead of print] PubMed PMID: 30033596.
- Richardson MG, Raymond BL**. Lack of Evidence for Ceiling Effect for Buprenorphine Analgesia in Humans. *Anesth Analg*. 2018 Apr 5. doi: 10.1213/ANE.0000000000003368. [Epub ahead of print] PubMed PMID: 29624528.
- Rudolph MI, Ng PY, Deng H, Scheffenbichler FT, Grabitz SD, **Wanderer JP**, Houle TT, Eikermann M. Comparison of a novel clinical score to estimate the risk of REsidual neuromuscular block Prediction Score and the last train-of-four count documented in the electronic anaesthesia record: A retrospective cohort study of electronic data on file. *Eur J Anaesthesiol*. 2018 Jul 16. doi: 10.1097/EJA.0000000000000861. [Epub ahead of print] PubMed PMID: 30020144.
- Schlesinger JJ**, Baum Miller SH, Nash K, Bruce M, Ashmead D, Shotwell MS, Edworthy JR, Wallace MT, **Weinger MB**. Acoustic features of auditory medical alarms-An experimental study of alarm volume. *J Acoust Soc Am*. 2018 Jun;143(6):3688. doi: 10.1121/1.5043396. PubMed PMID: 29960450.
- Sniecinski RM, Mackensen GB, **Kertai MD**. Letter by Sniecinski et al Regarding Article, "Conscious Sedation Versus General Anesthesia for Transcatheter Aortic Valve Replacement: Insights from the National Cardiovascular Data Registry Society of Thoracic Surgeons/American College of Cardiology Transcatheter Valve Therapy Registry". *Circulation*. 2018 Jun 5;137(23):2543-2544. doi: 10.1161/CIRCULATIONAHA.117.032405. PubMed PMID: 29866782.
- Theriault BM, Burger CF, **Schlesinger JJ**. EMR implementation of default opioid prescription quantities. *J Gen Intern Med*. 2018 Jul 27. doi: 10.1007/s11606-018-4604-6. [Epub ahead of print] PubMed PMID: 30054884.
- Theriault BM, **Schlesinger JJ**. Integration of an Abbreviated ICU Cognitive Failure Questionnaire. *Crit Care Med*. 2018 May;46(5):e479-e480. doi: 10.1097/CCM.0000000000003008. PubMed PMID: 29652722.
- Turner BD, Rook JM, Lindsley CW, Conn PJ, **Grueter BA**. mGlu(1) and mGlu(5) modulate distinct excitatory inputs to the nucleus accumbens shell. *Neuropsychopharmacology*. 2018 Mar 27. doi: 10.1038/s41386-018-0049-1. [Epub ahead of print] PubMed PMID: 29654259.
- Waldron NH, Cooter M, Piccini JP, Anstrom KJ, Klinger RY, **Kertai MD**, Podgoreanu MV, Stafford-Smith M, Newman MF, Mathew JP. Predictive ability of perioperative atrial fibrillation risk indices in cardiac surgery patients: a retrospective cohort study. *Can J Anaesth*. 2018 Apr 11. doi: 10.1007/s12630-018-1119-x. [Epub ahead of print] PubMed PMID: 29644515.
- Walters CB, Kynes JM, Tucker R**, Netterville J. Central Sleep Apnea Post Vagal Nerve Manipulation and Stimulation During Neck Tumor Resection: A Case Report. *A A Pract*. 2018 Mar 31. doi: 10.1213/XAA.0000000000000771. [Epub ahead of print] PubMed PMID: 29621011.
- Walters CB**, Schwalbach T, Sevene E, **Walters J, Jackson T**, Hiremath G, Moon TD, **McQueen KAK**. Chronic pain and associated factors in Maputo, Mozambique: a pilot study. *British Journal of Pain*. 2018;



2049463718777009. doi: 10.1177/2049463718777009. <https://doi.org/10.1177/2049463718777009>

**Wanderer JP**, Nathan N. A Pain in the Abs: Predicting Post-Cesarean Analgesia. *Anesth Analg*. 2018 May;126(5):1432. doi: 10.1213/ANE.0000000000002918. PubMed PMID: 29672377.

**Wanderer JP**, Nathan N. Bubble Trouble: Venous Air Embolism in Endoscopic Retrograde Cholangiopancreatography. *Anesth Analg*. 2018 Aug;127(2):324. doi: 10.1213/ANE.0000000000003599. PubMed PMID: 30028380.

**Wanderer JP**, Nathan N. Factor XI Deficiency and Pregnancy: Abnormal Lab Values or Significant Risk? *Anesth Analg*. 2018 Jul;127(1):2. doi: 10.1213/ANE.0000000000003501. PubMed PMID: 29912049.

**Wanderer JP**, Nathan N. Finding the Whey to Improve Surgical Outcomes: Perioperative Nutrition Screening and Intervention. *Anesth Analg*. 2018 Jun;126(6):1800. doi: 10.1213/ANE.0000000000002929. PubMed PMID: 29762215.

**Wanderer JP**, Rathmell JP. Big Decisions for Our Little Patients: Mask vs. IV Inductions. *Anesthesiology*. 2018 Jun;128(6):A19. doi: 10.1097/ALN.0000000000002249. PubMed PMID: 29762350.

**Wanderer JP**, Rathmell JP. Complex Signals with a Complex History: EEG Monitoring in Anesthesia. *Anesthesiology*. 2018 Jul;129(1):A19. doi: 10.1097/ALN.0000000000002320. PubMed PMID: 29916907.

**Wanderer JP**, Rathmell JP. How Low Can You Go? Minimum Dosage and Safety of Intraneural Sciatic Nerve Blocks. *Anesthesiology*. 2018 Aug;129(2):A18. doi: 10.1097/ALN.0000000000002364. PubMed PMID: 30020167.

**Wanderer JP**, Rathmell JP. Reducing Harm from Opioids: New Approaches for a Pressing Problem. *Anesthesiology*. 2018 May;128(5):A19. doi: 10.1097/ALN.0000000000002224. PubMed PMID: 29664777.

Ward DS, Williams MR, Berkenbosch JW, Bhatt M, Carlson D, Chappell P, Clark RM, Constant I, Conway A, Cravero J, Dahan A, Dexter F, Dionne R, Dworkin RH, Gan TJ, Gozal D, Green S, Irwin MG, Karan S, Kochman M, Lerman J, Lightdale JR, Litman RS, Mason KP, Miner J, O'Connor RE, **Pandharipande P**, Riker RR, Roback MG, Sessler DI, Sexton A, Tobin JR, Turk DC, Twersky RS, Urman RD, Weiss M, Wunsch H, Zhao-Wong A. Evaluating Patient-Centered Outcomes in Clinical Trials of Procedural Sedation, Part 2 Safety: Sedation Consortium on Endpoints and Procedures for Treatment, Education, and Research Recommendations. *Anesth Analg*. 2018 May 17. doi: 10.1213/ANE.0000000000003409. [Epub ahead of print] PubMed PMID: 29782404.

**Weavind L**, **Jobin McGrane T**. Women Mentoring Women in Academic Medicine: Pathways to Success. *Int Anesthesiol Clin*. 2018 Summer;56(3):110-120. doi: 10.1097/AIA.000000000000192. PubMed PMID: 29889128.

Wischmeyer PE, Carli F, Evans DC, Guilbert S, Kozar R, Pryor A, Thiele RH, Everett S, Grocott M, Gan TJ, Shaw AD, Thacker JKM, Miller TE, Hedrick TL, **McEvoy MD**, Mythen MG, Bergamaschi R, Gupta R, Holubar SD, Senagore AJ, Abola RE, Bennett-Guerrero E, Kent ML, Feldman LS, Fiore JF Jr; Perioperative Quality Initiative (POQI) 2 Workgroup. American Society for Enhanced Recovery and Perioperative Quality Initiative Joint Consensus Statement on Nutrition Screening and Therapy Within a Surgical Enhanced Recovery Pathway. *Anesth Analg*. 2018 Jun;126(6):1883-1895. doi: 10.1213/ANE.0000000000002743. PubMed PMID: 29369092.

Zajac AE, **Richardson MG**. Postdural Puncture Headache Treated With Epidural Blood Patch and Subsequent Resolution of Atypical Odontalgia: A Case Report. *AA Pract*. 2018 Feb 6. doi: 10.1213/XAA.0000000000000741. [Epub ahead of print] PubMed PMID: 29634557

Zhang L, Fabbri D, Lasko TA, **Ehrenfeld JM**, **Wanderer JP**. A System for Automated Determination of Perioperative Patient Acuity. *J Med Syst*. 2018 May 30;42(7):123. doi: 10.1007/s10916-018-0977-7. PubMed PMID: 29846806.

## Department Leadership



Warren S. Sandberg, MD, PhD  
Chair, Department of Anesthesiology  
Vanderbilt University Medical Center

**We provide uncompromising quality in clinical care, research and education. We are:**

**Compassionate:** Offering exceptional perioperative care and pain management to a complex population.

**Creative:** Advancing the frontiers of science, healthcare and technology.

**Committed:** Equipping future leaders with solid education and training, both here and abroad.

**Collaborative:** Working across Vanderbilt University Medical Center and beyond to achieve measurable outcomes.

## Executive Committee



Brian J. Gelfand, MD  
Associate Vice Chair,  
Educational Affairs



Matthew McEvoy, MD  
Vice Chair,  
Educational Affairs



Pratik Pandharipande,  
MD, MSCI  
Associate Vice Chair,  
Faculty Affairs  
Chief, Anesthesiology-  
Critical Care Medicine



Mark Rice, MD  
Executive Vice Chair,  
Anesthesiology,  
Chief, Multispecialty  
Adult Anesthesiology



Amy Robertson, MD  
Vice Chair,  
Clinical Affairs



Edward Sherwood,  
MD, PhD  
Vice Chair, Research



Matthew Weinger, MD  
Vice Chair,  
Faculty Affairs



Stephen Doherty, MMHC  
Department Administrator

## Division Chiefs



Jeanette Bauchat, MD  
Chief, Obstetric  
Anesthesiology



Eric Delpire, PhD  
Director, Basic Science  
Research



Katherine Dobie, MD  
Chief, Ambulatory  
Anesthesiology



Brent Dunworth,  
DNP, MBA, APRN,  
CRNA  
Chief CRNA



David Edwards, MD, PhD  
Chief,  
Pain Management



Alexander Hughes, MD  
Interim Chief, Pediatric  
Cardiac Anesthesiology



Jill Kilkelly, MD  
Chief,  
Pediatric Anesthesiology



Letha Mathews, MBBS  
Interim Chief,  
Neuroanesthesiology



Michael Pilla, MD  
Associate Chief,  
Multispecialty  
Adult Anesthesiology



Mias Pretorius, MBChB,  
MSCI  
Chief, Cardiothoracic  
Anesthesiology



Ann Walia, MBBS  
Chief, Veterans Affairs  
Anesthesiology Service



Liza Weavind, MBBCh, MMHC  
Associate Chief,  
Anesthesiology Critical Care Medicine