



## Department Welcome

***By Adam Sapirstein, MD***

*Interim Director, ACCM*

*Associate Professor, Critical Care Medicine*

We are excited to “publish” this first edition of the *ACCM Alumni Newsletter*. We are launching this project at a time in which the global COVID-19 pandemic has challenged and isolated us. I am proud of the tireless contributions that our clinicians and staff have made in direct care of COVID-19 patients and in support of the amazing efforts of Hopkins medicine. As we write, the direct impact of COVID-19 on the region and the nation is declining. However, we remain vigilant and our Departmental efforts in the recovery phase are only just starting. The pandemic challenged us to provide clinical care, conduct research, and educate in ways that



we may never have imagined. In the process, we innovated and learned at a speed that was inconceivable just 2 years ago. The personal and professional sacrifices that this undertaking required cannot be overstated. I hope that all readers will have justifiable pride in the response and leadership that ACCM and Hopkins Medicine provided throughout the pandemic.

The goal of this newsletter is to celebrate the achievements of the Department and the ACCM community. In the process we hope to inform and connect all those who have a history and interest in the Department. We believe that, over time, this newsletter will be a vehicle for ACCM to inform you—our alumni and friends—of internal events and achievements, and for you to update us of events in your own professional lives. The renewal, reinforcement, and creation of new connections with our ACCM global community will create new interest and opportunities in and beyond Baltimore. Along the way we hope to add to your knowledge and enjoyment of

ACCM.

This first edition of the *ACCM Alumni Newsletter* highlights our 2021 graduating resident class, spotlights some research accomplishments, introduces some of our newer programs and initiatives, and shares our COVID-19 response. We hope that you enjoy reading the newsletter and encourage you to send suggestions and updates about your career.

## Our COVID-19 Response

***By Aliaksei Pustavoitau, MD***

*Associate Professor, Adult Critical Care Medicine*



The SARS-CoV-2 pandemic has had a profound impact on the operations of the Johns Hopkins Medical Institutions (JHMI) and ACCM. The two major waves of COVID-19 presented challenges that required differing responses. During the first wave in spring of 2020, when planned surgical and interventional procedures came to a halt and total operating room volume decreased to ~35%, we used an “all-

hands-on-deck” approach to care for patients with COVID-19 and those undergoing urgent and emergent procedures. ACCM residents, faculty, and nurse anesthetists were redeployed as respiratory therapists, critical care clinicians, and bedside nurses. We deployed a specialized team to support airway management and added faculty to staff critical events throughout the hospital. We also expanded our triage

and critical care outreach program to ensure patient safety and efficiency as critically ill patients crossed traditional boundaries between services. The Center for Perioperative Optimization largely shifted its operations to a telemedicine format. Our total effort amounted to over 2,500 shifts during the spring surge.

As in the rest of the country, our supply chain was disrupted, and our cache of single-use disposable personal protective equipment (PPE) was initially inadequate. Our supplies of PPE were augmented through community volunteer effort in making face-shields and masks, and our administrative team centralized the distribution of PPE for all members of ACCM to ensure timely access. ACCM leaders also led the purchase and deployment of 100 additional intensive care unit (ICU) ventilators and 7 ultrasound machines to offset the greater hospital needs during the spring wave. Some of which were funded by a generous philanthropic donor.

During the second wave in late fall 2020 – winter 2021, JHMI shifted to a “no-patient-left-behind” approach to care, as many patients had previously delayed their scheduled care. Although the number of hospitalized patients with COVID-19 reached peaks comparable to the number during the spring wave, we continued operations while augmenting activities dedicated to COVID-19. We formed an ACCM COVID Workgroup with representatives of faculty, residents, and nurse anesthetists. This workgroup met regularly in a virtual meeting format. As the number of patients with COVID-19 increased and occupied inpatient wards and ICUs, the modeling of bed availability allowed the hospital to rebalance the mix of outpatient and inpatient procedures. This ability enabled us to maintain operating room volumes at ~80% of the normal pre-COVID volume. With operating volumes largely preserved, we relied on a volunteer staffing model and worked with the centralized staffing office to staff ICU expansion. As a result we optimized ICU bed utilization, converted a post-anesthesia care unit into a surgical ICU, and supported airway teams during the weekdays, in all dedicating over 550 shifts toward a system-wide effort to care for patients with COVID-19. This approach preserved the resident educational experiences in the operating room and ICU, with prioritization for residents who were behind on requirements due to redeployments during spring 2020.

In the middle of the second surge, JHMI started vaccine administration. As frontline clinicians for airway management, ACCM clinicians were given the highest priority for vaccination efforts at JHMI. From the first vaccination on 12/16/20, we continue striving to vaccinate every single person in the department.

## StAAR (Stimulating and Advancing Anesthesia Research) Funding

*By Sujatha Kannan, MD  
Professor, Pediatric Critical Care  
Medicine*



The

StAAR grants provide ACCM faculty with seed funding to obtain pilot data for extramural grant applications. Funding amounts range from \$20,000 to \$50,000 for 1 year. Two funding cycles are held every year. We have had 11 such funding

## StAAR Success Story: Sapna Kudchadkar, MD, PhD



Pediatric intensivist Dr. Sapna Kudchadkar credits her StAAR award with jumpstarting her research program. As a fellow she had received a small grant from FAER and some small foundation grants that allowed her to gather data on early rehabilitation of children in the pediatric intensive care unit (PICU) here at Hopkins. She called this quality improvement program PICU Up!. She had been able to show that the PICU Up! mobility program was feasible at Hopkins, but she wanted to perform

cycles with close to 200 applications submitted. Mentored grants have a high success rate, with 2/3 funded at the first submission. Investigator grants have a 50% funding rate. At least three faculty members review each grant, and all grants are reviewed by the ACCM research committee. Applicants receive detailed NIH-style reviewer comments that have been extremely useful for future extramural grant submissions and for StAAR resubmissions. Resubmissions have a higher rate of funding as long as all the queries have been addressed adequately as per NIH guidelines. We have had a return on investment of greater than 6-fold for grants obtained and a 3-fold increase in the number of clinician-scientists with funded extramural grants. Future funding will be needed to support ongoing efforts.

a point prevalence study to determine the current state of pediatric rehabilitation practices nationally and internationally. To perform this type of study, she knew she needed to enroll a large number of centers, in particular 82 sites that had expressed interest in participating. The NIH was unlikely to fund this type of study, as it is primarily interested in clinical trials and large observational studies. Therefore, she turned to the StAAR program. Sapna applied for a StAARter Clinical Research Core Award. With this critical funding support, she carried out the PARK-PICU study (Prevalence of Acute Rehabilitation for Kids in the PICU, [park.web.jhu.edu](http://park.web.jhu.edu)), which enrolled 1,800 children from 82 United States PICUs and was subsequently published as the Featured Editor's Choice Article in the May 2020 issue of *Critical Care Medicine*. These baseline data were critically important for her successful grant application to the Donaghue Greater Value Portfolio Award. She subsequently adapted the PICU Up! mobility program to a stepped-wedge pilot randomized controlled trial and received funding for an R01

as an Early Stage Investigator on the first attempt. These milestones would not have been possible without the support of the StAAR Award.

## **Anesthesiology Scholars Program Inter-Exchange (ASPIRE) Speaker Exchange Program**

***By Jennifer Lee, MD Professor, Pediatric Anesthesia,  
Nauder Faraday, MD Professor, Adult Critical Care Medicine, and  
MaryBeth Brady, MD Associate Professor, Cardiac Anesthesia***

Disseminating scholarly work is essential to advancing the medical field. It always has been and always will. Historically, Johns Hopkins ACCM has been on the forefront of this effort. Continuing in this tradition, ACCM is expanding the opportunities for faculty to disseminate their work at institutions nationwide. The goal is to advance academic anesthesiology, promote career advancement, and affect the field of medicine as a whole. Visiting lectureships spark new collaborations, foster opportunities, and advance projects. Furthermore, speakers gain national recognition for their work, which is key for promotion, and often receive invitations to speak at additional academic conferences.

In January 2021, Johns Hopkins ACCM launched the Visiting Professor Speaker Exchange Series to sponsor faculty in delivering and attending lectures across multiple institutions. Led by Drs. Jenny Lee, Mary Beth Brady, and Nauder Faraday, the program has already seen tremendous success. Thus far, ACCM has built relationships with the Departments of Anesthesiology at Stanford, Mayo Clinic, University of Florida-Jacksonville, Brigham Women's Health, and the University of California-Irvine. Additionally, they helped launch a speakers consortium, the

Anesthesiology Scholars Program Inter-Exchange (ASPIRE). The ASPIRE program includes seven anesthesiology departments and the American Society of Anesthesiologists (ASA). ASPIRE lecture attendees can receive free CME credits through the ASA with advanced registration. The ACCM pediatric anesthesia division also participates in the nationwide Visiting Scholars in Pediatric Anesthesia Program. This division recently hosted speakers from the University of Wisconsin, Dartmouth, and the University of Illinois (Chicago).

In the first 5 months, 33 virtual lectures were arranged through the ACCM Visiting Professor Series. Seventeen ACCM faculty have already lectured or are scheduled to do so. The Department encourages representation from all ACCM faculty. To date, eight lectures have been delivered by women and nine by men from our Department. Thus far, participating divisions include cardiac anesthesia, chronic pain, acute pain/regional anesthesia, neuroanesthesia, general adult anesthesia, and pediatric anesthesia.

Delivering high impact lectures is difficult. Presenting scientific material in a logical and dynamic fashion requires focus on presentation skills and tremendous practice. If the scientific work is earth shattering but no one in the audience is awake to hear it, much of the hard work will go unrecognized. To assist ACCM faculty in presentation skills, Dr. Brady has developed a curriculum on how to give an effective presentation, including specific tips and tricks for the virtual arena. Several speakers have already benefitted from Dr. Brady's curriculum. She also provides 1:1 instruction on slide mastery as well as opportunities to practice and receive specialized feedback.

If you are interested in participating in the Visiting Professor Series or if you can assist with fostering connections with new institutions, email Dr. Jennifer Lee ([Jennifer.lee@jhmi.edu](mailto:Jennifer.lee@jhmi.edu)). Faculty are encouraged to speak on any scholarly area, including clinical, education, research, diversity, and other topics. Requirements for participation include developing the lecture with a mentor's guidance, practicing the lecture in advance with peers, and obtaining feedback on your slides. Dr. Brady's curriculum on preparing a lecture is highly recommended. We look forward to your involvement and getting the word out.

## View From The Residency

*By ACCM Chief Residents, Ashley Kass, Kristen Trela, and Joe Walpole*



Greetings from the residency!

It has been a very different year for the residents, as COVID-19 has changed how we work every single day. When the ORs were closed during the first surge we redeployed and kept the lights on. Now, as we see the passing of the second wave and the emergence of vaccination, we still grapple with the realities of our new normal just like everyone else in healthcare. Despite these challenges, we continue to push the residency forward and work towards improvements in education and clinical training.

Two highlights of the past year have been directly fueled by resident feedback: introduction of a comprehensive diversity and inclusion curriculum and streamlined resident case requests. With the help of residents and faculty we have started a Women in Anesthesia group that meets on Wednesday evenings before college days. These meetings are open to all women in the department—residents, administrators, fellows, and faculty—and feature guest speakers invited from around the country. It has been extremely well received and continues to grow as word spreads of this new biweekly event.

The Office of Diversity and Inclusion has also helped us to bring a lecture series to our College Day curriculum. Each session has focused on key issues such as implicit bias and microaggressions. Speakers from within Hopkins as well as from outside institutions have led these talks to train a new generation of clinicians to be cognizant of our role in promoting equality and equity in medicine.

Every year residents are asking for the best and most educational cases that are a hallmark of the Hopkins ACCM experience. In the past, case requests were sometimes clunky, and no formal system was in place to facilitate resident requests. Starting with our Advanced Neurosurgery rotation and extending now to the Complex Surgery rotation, we have built online case request tools for residents to submit directly to the OR schedulers. This is also part of an ongoing effort to track resident cases at the institution level to better distribute case variety and complexity among all residents for a more uniform training experience.

ACCM residents at Hopkins continue to strive for excellence and have risen to the occasion during an unprecedented time in medicine. Through adaptation we have continued to uphold the core values of the program, meeting the needs of the moment while still planning new ways to improve in the future.

## Note From The Program Director

**By Jed Wolpaw, MD**

*Associate Professor*

*Critical Care Medicine*

As we wrap up the first-ever fully virtual interview season, we are thrilled at how successful it was. We interviewed 200 highly competitive candidates over 20 interview days. Despite concerns that the virtual format would limit our ability to get to know the candidates, we were able to get a better feel for them than we had anticipated. We provided a virtual meet and greet with 4 residents the evening before their interview day. This “get-together” was well received and allowed the candidates to hear the residents’ perspective on the program. Interviews were held the next morning with 4 faculty members. The candidates also had the opportunity to take a virtual tour led by one of our chief residents. Applicants overwhelmingly rated the day as the best, or one of the best, of their season.



In other residency news, Andy Collins, after 29 years as our coordinator, retired in the summer, and Emily Jensen joined our team as our new coordinator. Emily has been a fantastic addition and is already well known and appreciated by the residents for her welcoming personality, warm smile, and energetic willingness to help in any way.

We continue our college days in a virtual format, and though we miss being together

to learn, we appreciate that it allows residents on away rotations or at home post-call to join in the sessions if they choose. Drs. Miller and Schiavi have done an amazing job of adjusting our simulation education to fit COVID-19 restrictions, and reviews have been stellar.

Finally, our residents have gone above and beyond in their response to the COVID-19 pandemic. First, last spring, and again in the winter, they have been consistently on the frontlines in our ICUs caring for the sickest patients, volunteering for extra shifts when needed, and demonstrating to our colleagues and the world what it means to be a hero. We could not be prouder of them, and we know they will continue to inspire, teach, and lead our specialty in the years to come.

## **Upcoming Lectureships**

October 7, 2021 - Mark Rogers Lectureship  
October 21, 2021 - Yaster & Nichols Lectureship  
December 2, 2021 - Abraham Lectureship  
May 5, 2022 - Benson Lectureship  
June 23, 2022 - Beattie Lectureship

## **Departmental News**



**Colleen Koch**, MD, MS, MBA, FACC, has transitioned from ACCM Department Chair to the first-ever female Dean of the University of Florida College of Medicine

**James Schauble**, MD, passed away on August 21, 2020. Dr. Schauble returned to Johns Hopkins Hospital in 1978, where he was Director of Cardiac Anesthesia for many years. While at Hopkins, he was Chair of the Risk Management Committee for 17 years and was very active in Quality Assurance. Dr. Schauble was 93 years old.



ACCM Partners with School of Nursing to Launch Doctoral Program for Nurse Anesthetists

## Departmental Accomplishments

## December 2020

With leadership from **David Mintz**, MD, PhD, ACCM's NIH T-32 training grant, titled "Postdoctoral Research Training in Anesthesiology and Critical Care Medicine," was renewed with slots for six fellows.

## November 2020

**Ray Koehler**, PhD, **Jieru Wan**, PhD, **Courtney Robertson**, MD, and Jinyuan Zhou, PhD (Department of Radiology) have received a Multi-PI NIH Cooperative UH3 grant entitled, "Development of Novel Functional Markers for TBI Using Molecular MRI." The purpose of this 3-year grant is to validate MRI and blood biomarkers of brain injury in preclinical models of cortical and diffuse axonal injury for eventual translation in clinical trials.

**Marek Mirski**, MD, PhD, **Austen Lefebvre**, MD, and **Rohan Mathur**, MD, MPA, at Johns Hopkins Medicine, along with investigators at the Applied Physics Laboratory, have been jointly successful in achieving the metrics of PHASE I in the DARPA-sponsored project, "N3- Non-Invasive Measurement of Discrete Neuronal Activity—Coherent Optical Neural Detection Unit (CONDUIT)". The teams have now received an 18-month, \$4 million PHASE II Award.

**Kate Rosenblatt**, MD, MHS, received a grant from the Foundation for Anesthesia Education and Research (FAER) for her project titled, "Defining Cerebral Autoregulation-Guided Therapeutic Targets in Sepsis."

**Anesthesia Technology Program**— The class of 2020 had a 100% pass rate for the American Society of Anesthesia Technologists and Technicians' (ASATT) National Certification Exam. Congratulations to Ms. **Kimberly Allen**, **Michael Phelps**, MD, and **Shannon Segres Yorkman**, MS, MSN, CRNA, for their commitment and dedication to the education of the third cohort of Anesthesia Technology Program graduates.

### **October 2020**

**Yun Guan**, MD, PhD, and co-PI Dr. Xu Cao (Department of Orthopaedic Surgery) were awarded a multi-PI R01 grant from the NIH to study osteoarthritis pain. The project title is “Subchondral Bone Cavities in Osteoarthritis Pain” and is funded for 4 years.

**Robert S. Greenberg**, MD, and **Wayne I. Sternberger**, PhD, are co-inventors of a novel neural block monitor that enables the clinician to use an objective measure to determine location and density of nerve block. The Maryland Innovation Initiative (MII) board awarded a Phase III Commercialization Grant (\$150,000) to BLOCKsynop, Inc. to support transition of the device to market. (Dr. Greenberg is Chief Medical Officer and Dr. Sternberger is Chief Technology Officer of BLOCKsynop, Inc.

### **September 2020**

**Katherine Hoops**, MD MPH, recently received a grant from the Bloomberg American Health Initiative to study her simulation-based educational intervention, “The 5As of Firearm Safety.”

### **August 2020**

**Lee Goeddel**, MD, MPH, received a \$30,000 Catalyst Grant from the Office of the Provost for his project to build a web-based multidisciplinary ultrasound education platform.

**Yun Guan**, MD, PhD, has been awarded a 5-year R01 grant from the National Institutes of Health for a study titled “Birth Tissue Products for Non-opioid Treatment of Post-surgical Pain.” Dr. Guan and his team will study the effects of human birth tissue products, such as amniotic membrane and umbilical cord, on wound healing and pain suppression after surgical procedures.

## July 2020

**Jenny Lee, MD**, was awarded a 4-year multi-PI R01 grant with Dr. Lee Martin (Department of Pathology) for a project titled "Proteasome activation to protect the white matter in neonatal hypoxic-ischemic encephalopathy."

**Fritz Sieber, MD**, received \$19,900 from the Blaustein Endowment Fund for his proposal entitled "Kidney Function and Opioid Dosing in the Frail Surgical Population."

**Traci Speed, MD**, received \$21,000 from the Blaustein Endowment Fund for her proposal titled "Longitudinal assessment of cannabis use, chronic post-surgical pain, opioid use, and daily functioning among surgical orthopedic patients on long-term opioid therapy." Her mentor on the project is Dr. Marie Hanna.

## June 2020

**Roger Johns, MD, PhD**, was awarded 4 years of funding from the NIH for his R01 grant submission titled "Mechanistic action of PDZ domain protein interactions on neuronal development and anesthetic-mediated neurotoxicity."

**Eellan Sivanesan, MD**, was awarded a 2-year mentored research training grant from the Foundation for Anesthesia Education and Research for his study titled "Spinal cord stimulation for the attenuation of chemotherapy induced painful neuropathy and increased chemotherapeutic efficacy."

## Resident Graduates

**Madeleine Alvin, MD, MA**, - Boston Children's Hospital, Pediatric and Cardiac Anesthesia fellowship

**Desiree Coutinho**, MD - Johns Hopkins, Medicine/ICU fellowship  
**Spencer Dauer**, DO, - New York University, Cardiac Anesthesia fellowship  
**Peter Galan**, MD - Mercy Medical Center  
**David Garas**, MD, MBA - Brigham and Women's Hospital, Pain Medicine fellowship  
**Richard Gyi**, DO - Johns Hopkins, Cardiac Anesthesia fellowship  
**Ashley Kass**, DO - Johns Hopkins, Cardiac Anesthesia fellowship  
**Jane Leavy**, MD - Stanford, ICU fellowship  
**Sophia Lin**, MD - University of California San Francisco, Cardiac Anesthesia fellowship  
**Sean Love**, MD - Johns Hopkins, ICU fellowship  
**Angela Lucero**, MD - Johns Hopkins, Pediatric Anesthesia fellowship  
**Amy Manzo**, MD - Rainbow Babies and Children's Hospital, Pediatric Anesthesia fellowship  
**Marcus Mitchell**, MD - Holy Cross Hospital  
**Evan O'Dea**, MD - Island Medical Consultants  
**Falin Patel**, MD - Sibley Memorial Hospital  
**Jason Ross**, MD - Brigham and Women's Hospital, Pain Medicine fellowship  
**Stefani Schwartz**, MD - Massachusetts General Hospital, Pain Medicine fellowship  
**Andrew Scott**, MD - Johns Hopkins, ICU fellowship  
**Yael Shinar**, MD - Palliative Medicine fellowship in New York.  
**Kristin Trela**, MD - The University of Chicago, Cardiac Anesthesia fellowship  
**Patrick Upchurch**, MD, MPH - Emory University, Cardiac Anesthesia fellowship  
**Jonathan Urbina**, MD - Johns Hopkins  
**Joseph Walpole**, MD, PhD - Johns Hopkins, Cardiac Anesthesia fellowship  
**David Yang**, MD - Hospital for Special Surgery, Regional Anesthesia fellowship  
**Yunpeng Yang**, MD - private practice in Indianapolis, IN.  
**Ellen Youbi**, MD - Ann Arundel Hospital

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