

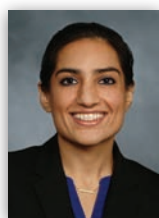
Advocating for Research and Using Research for Advocacy

Matthew J. Kremke, MBA

The quality of care offered to patients is improving every day. It is crucial that these improvements are not taken for granted and that the work needed to take steps forward is maintained. Work that, in most cases, originates from or is solidified by the same core: research. Today's research becomes tomorrow's cutting-edge innovation, and ultimately becomes the future's standard of care. Conversely, without research, anesthesiology and medicine's stagnation and eventual decline become inevitable. After all, consider what patient care would look like today without the countless innovations brought about through research.

Having been in the medical association world and advocating for physicians and patients for the past 20 years, I want to stress the importance of science advocacy to anesthesiology's future. Advocacy at the highest levels is key to securing the funding that makes research possible. Examples of the studies, trials, and more being pursued are extremely powerful tools when advocating for science. At FAER, we are proud of our role in providing soil for the physician-investigators carrying out this research to grow and flourish. As our efforts push anesthesiology ever forward, it's important that policymakers and legislators are kept aware of the ongoing work and best policies to ensure growth is not only maintained but expanded upon.

FAER's own grantees, who are leading medicine into the future, know just how significant research is to patient care, medicine, and advocacy.



Gunisha Kaur, MD, MA

Given the rise of violent global conflict, war, and climate change, physicians are increasingly encountering refugees and asylum seekers in their clinical practice. We must be trained in how to provide these vulnerable people appropriate and responsible care. The goal of my research is to create a standard of care for these patients that is rooted in understanding the biopsychosocial factors influencing their health and well-being – how torture, forced migration, or family separation might influence their overall health, such as psychological wellness, diabetes, or cardiovascular disease.

Refugee health is a wide-open area for research, and there is an opportunity to make

a very real difference for these extremely vulnerable men, women, and children by collecting data, analyzing trends, and conducting trials. Anesthesiologists, as perioperative physicians, intensivists, and pain physicians, understand patients holistically and are well-suited to lead these investigations. For me, my grant from FAER opened the door to conduct rigorous human rights research as an anesthesiologist.

Gunisha Kaur, MD, MA
2016 Research in Education Grant Recipient



Jonathan M. Tan, MD, MPH, MBI, FASA

I'm incredibly thankful for the enormous support that FAER and the Anesthesia Patient Safety Foundation (APSF) have provided through the APSF-FAER Mentored Research Training Grant. As a former FAER Medical Student Anesthesia Research Fellowship participant, FAER has played a pivotal role in my career development as a pediatric anesthesiologist and perioperative patient safety scientist. FAER and APSF are supporting our study titled "The Impact of Air Pollution and Neighborhood-Level Risk Factors on Pediatric Perioperative Respiratory Adverse Events." While we know that poor air quality exposure has a significant impact on the respiratory health of children, the perioperative patient safety implications of air pollution exposure have not been well studied at scale.

With this study, we are bringing innovative approaches from spatial data science, environmental health science, clinical informatics, and public health to help us create new approaches to improving pediatric perioperative patient safety. My goal is to expand our understanding of disparities in patient safety and outcomes by focusing on risk factors related to the social and environmental determinants of health that can be identified, predicted, and mitigated. Together with FAER and APSF, we are advancing our ability as patient safety scientists to better study the interactions between socioeconomic status, environmental exposures, geographic location, and disparities in adverse outcomes in anesthesiology.

Jonathan M. Tan, MD, MPH, MBI, FASA
2021 APSF-FAER Mentored Research Training Grant Recipient



Allison Lee, MD, MS, MBBS

It is extremely gratifying that FAER recognizes the importance of supporting big ideas and innovation in graduate medical education. It is imperative, as clinician scientists and educators, that we be continuously creative, working to develop cutting-edge tools that meet the needs of current and future learners. Today's learners seem to have largely moved away from textbooks and now gravitate toward engaging with "high-tech" and online learning platforms. We need to respond accordingly.

My research into the value of serious video games for teaching anesthesiology residents has been exciting and rewarding. I believe this groundbreaking work is building a foundation of evidence that will benefit not only our specialty but the field of simulation-based education and graduate medical education more generally.

Becoming a FAER grantee has been a major catalyst for my career. The grant has facilitated my pursuit of advanced training, which has further catapulted me into other areas of research and scholarly productivity.

FAER's investment in research and in the career development of researchers is a key driver for making scientific advances, for improving the quality of provider education and patient care, and for securing the very future of our specialty. I am tremendously honored to be a part of this extraordinary community.

Allison Lee, MD, MS, MBBS
2017 Research in Education Grant Recipient



Mark D. Neuman, MD, MSc

In 2011, I received a FAER Mentored Research Training Grant for a study comparing outcomes among patients who received spinal versus general anesthesia for hip fracture surgery. This is a really important topic to anesthesiology and to our patients. Over 250,000 older U.S. adults each year require surgery to treat a hip fracture, and nearly all of them face decisions about their anesthesia care. Over time, I built on this initial investment from FAER to develop and carry out REGAIN (Regional versus General Anesthesia for Improving Recovery after Hip Fracture), the largest-ever randomized trial comparing neuraxial versus general anesthe-



Matthew J. Kremke, MBA
FAER Executive Director.
@MatKremke

sia for any surgery. Our initial results from REGAIN, published in 2021 and 2022, provided a wealth of new information to guide anesthesiologists, patients, and families in making informed choices about their care.

Beyond the relevance of REGAIN's findings to anesthesia practice, REGAIN has provided opportunities to highlight the importance of anesthesiology to health care value for diverse audiences. For example, in 2019, U.S. Rep. Donald Beyer (D-VA) named REGAIN specifically in comments to the House Ways and Means Committee as a study that exemplified the value of the Patient-Centered Outcomes Research Institute (PCORI), which funded REGAIN: "When looking at how to improve the health care system, this is the kind of research we want to support," Beyer told the hearing room. "How do we make the patient experience better? How do we help physicians and clinicians make more effective decisions?" As overall principal investigator of REGAIN, I was proud to see the importance of the questions we were asking recognized at the highest level of U.S. government. Even more, I was grateful for the opportunity that FAER gave me through its investment to communicate the relevance and importance of my work as a practicing anesthesiologist to federal leaders and the public through research.

Mark D. Neuman, MD, MSc
2011 Mentored Research Training Grant Recipient

These are just a handful of examples of the incredible work coming from FAER-supported physician-investigators and the value it represents to anesthesiology, patient care, and science advocacy. Their work is not only improving the science within anesthesiology and medicine, but also helping shape policy at the highest levels of government that directly impacts practice and patient care. I am so proud of FAER's role in ensuring investigators like Drs. Kaur, Tan, Lee, and Neuman have the support they need to help make their work possible. I hope you will consider a donation at [FAER.org/Donate](https://www.fair.org/donate) to help us continue to support such exceptional researchers in the future. ■