

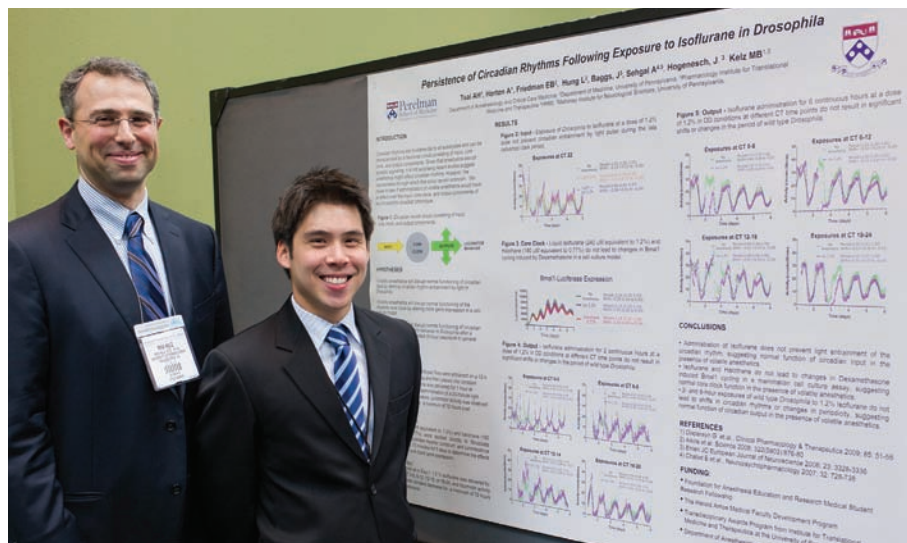
Mentoring Matters

Max B. Kelz, MD, PhD

Even as an undergraduate, I knew I wanted to pursue a career in biomedical research. At the time, I wrongly assumed that all that was needed for success would be my own curiosity, a strong scientific drive, a good idea or two, and, perhaps, a bit of good fortune. I had no understanding of the critical role mentoring would play as my career unfolded. Luck drew me to the University of Pennsylvania after medical school, to a Department of Anesthesiology and Critical Care where I did my residency under Dr. David Longnecker's physician-scientist training model. Phenomenal clinicians transformed me from a timid medical student into a physician more talented than I ever imagined possible. To this day, I remain indebted to Drs. Stanley Aukberg, Dmitry Baranov, David Eckmann, Brett Gutsche, Jiri Horak, E. Andy Ochroch, Pat Neligan, and David Smith for the unbeatable clinical training.

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However, stellar clinical training was not enough. My basic science development depended upon mentoring in ways I could not have imagined. Most important were the open doors of the clinician-scientists whose offices surrounded my own. Once again, David Eckmann served as an essential role model. He was equally adept with his instantaneous troubleshooting of deteriorating vital signs as he was diagnosing the physics of faulty gas flows. David taught me never to become the OR physician about whom everyone muttered, “he must be really good in the lab,” nor to become the laboratory scientist described only with “remarkable



Stanford cardiac anesthesiologist Albert H. Tsai, MD, as a medical student with mentor Max B. Kelz, MD, PhD, at FAER's Medical Student Anesthesia Research Fellowship poster presentations during ANESTHESIOLOGY 2011.

clinical skills.” Dr. Rod Eckenhoff played a pivotal role in my development as well. He would read and edit papers and grant applications and turn them around, full of red ink, within 48 hours, while often pointing me in novel scientific directions I would never have considered. Apart from finding mentors within my own department, I was very lucky to identify Dr. Sigrid Veasey in sleep medicine. She served as another essential mentor, teaching me to implant, interpret rodent EEG, and better assess arousal states. Before it had become fashionable, I built myself a multidimensional mentorship team. Though I obviously knew better, these wonderful mentors made me believe that they had no other job than to aid in my faculty development. All of this was made possible by a clinical culture that valued scientific inquiry – a true tribute to Lee Fleisher, who succeeded David Longnecker as Penn's next chair.

Some debts can never be repaid. Instead, they must be paid forward. I've fully embraced this thought. I now serve as a mentor to Penn undergraduates, medical students, graduate students, MD-PhD trainees, postdoctoral fellows, and residents, as well as junior faculty. In many ways, adopting a new mentee is much like raising a child – the commitment lasts for decades. The struggles of my mentees become my own, while their successes bring more joy than mine could.

In 2004, the Foundation for Anesthesia Education and Research (FAER) established the Academy of Research Mentors

in Anesthesiology (ARMA), whose members serve as a resource for the community. New members of ARMA are nominated annually and will have made substantial contributions to the development of physician-scientists within anesthesiology. These members are elected either for their educational or research mentoring prowess, in keeping with the goals of FAER. As the current president of the FAER ARMA, I can emphasize how important the mission of developing mentors and role models truly is.

In addition to ARMA's traditional roles of moderating medical student, resident, and junior faculty presentations at the ASA annual meeting, this year ARMA also hosted a special event. Moderated by ARMA member Dr. George A. Mashour, together with Elizabeth LaPensée, PhD, and Emily Somers, PhD, ScM, ARMA offered a Large-Scale Grants Town Hall on March 9, 2021. This event was also archived and



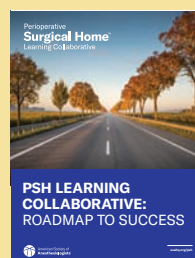
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is available for asynchronous viewing on FAER's Resources for Researchers webpage (www.asahq.org/faer/researchfunding/resources-for-researchers). This unique opportunity was designed to inform and excite faculty in anesthesiology about funding opportunities to tackle broad collaborative scientific questions that require multidisciplinary team science. ARMA's overarching mission is to strengthen anesthesiology's mentors and, in so doing, its academic role models as well.

In a complementary fashion, ASA, FAER, and the International Anesthesia Research Society (IARS) have jointly created the Anesthesia Research Council (ARC). The ARC is dedicated to advancing scientific discovery and health care policy through the development and dissemination of research in anesthesiology, perioperative, and pain medicine. Spearheaded by Dr. Chas Emala, ARC's first working group will evaluate and strengthen the health of anesthesiology's clinician-scientist pipeline (*Anesth Analg* 2020;131:1300-3). Working group reports will be made available to the public both at the May 2021 IARS meeting and at ANESTHESIOLOGY 2021 in October.

Just as it was for me, mentoring remains an essential ingredient to the successes of our trainees of today and tomorrow. The field of anesthesiology is fortunate to have organizations committed to developing, maintaining, and strengthening mentors. ■

DON'T MISS! PSH Learning Collaborative: Roadmap to Success



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