

# UPDATE

Association of University Anesthesiologists UPDATE | 2020 | Issue 1

## PRESIDENT'S MESSAGE

***"What counts in life is not the mere fact that we have lived; it is what difference we have made to the lives of others that will determine the significance of the life we lead."***

— Nelson R. Mandela



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**President, AUA**

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sex, ethnicity, sexual orientation, and gender. As such, prejudice is a major public health concern, and should be a priority issue for the AUA. As a practical step, we in the AUA could consider supporting the efforts of organizations such as White Coats for Black Lives: [whitecoats4blacklives.org](http://whitecoats4blacklives.org).

The AUA was formed with the recognition that an organization was needed to provide a home to academic anesthesiologists and to advance the interests of academic anesthesiology. The AUA is also an

honorific organization, which could be regarded by some as an anachronism, sometimes serving to maintain elitism, and standing in the way of building diversity and inclusion. An alternative perspective is that maintaining merit-based membership is what gives the AUA its unique character and prestige — and helps to maintain its high academic standards. Regardless of one's perspectives on this debate, the reality is that in 2020, the AUA remains an organization of predominantly older white men. Its composition does not reflect that of the broader anesthesiology or academic communities. With its unrepresentative composition, the AUA could at times be out of step with and even potentially tone deaf to the concerns of our broader society. Reflecting on this as my term as AUA President ends, I believe that addressing our unrepresentative character is an important opportunity for us in the AUA going forward.

It has been my privilege to serve as the President of the Association of University Anesthesiologists (AUA) over the last two years. Events of the past six months have rocked the AUA, as they have the whole world. First the COVID-19 pandemic swept across the globe, wreaking devastation on health, healthcare, academic activities, and social structure. In its wake, it also brought massive unemployment and economic devastation. Notably, those most heavily impacted by COVID-19 have been from under-represented minority groups and from lower economic strata of society. The COVID-19 pandemic has exposed the systemic inequities in healthcare around the world, including in the United States. Going forward, disparities in health and health outcomes should be an important focus for us in the AUA. In recent weeks we have also had shocking reminders of the systematic and violent racism that is endemic in our society. This has been exemplified by the horrific murders of Ahmaud Arbery, Breonna Taylor, and George Floyd. Prejudice is woven into the historic fabric of our society, and it provides rationalization for violence against people based on their race,

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## WOULD YOU BE INTERESTED IN AUA VIRTUAL EDUCATION?

Please take a brief survey by June 24 to let us know!



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# AUA Statement on Police Brutality and Racism in America

The past few months and the past few days have been particularly difficult for our communities. The disparities in health outcomes uncovered by the Covid-19 pandemic have lifted the veil on the systemic inequities in healthcare. The recent horrific events with the killings of Ahmaud Arbery, Breonna Taylor, and George Floyd expose the racism that are endemic in our society.

The AUA fully endorses the AAMC Statement on Police Brutality and Racism in America and Their Impact on Health. We stand in support of our colleagues, our trainees, and our communities in this struggle. We recognize the stress and anguish many are feeling.

We urge our members and our community to listen in order to learn how to be better advocates. The AAMC calls on all of us to acknowledge our own biases. We have started this process in our own home. Throughout the past year, AUA leaders have taken steps to achieve diversity, equity, and inclusion within our society and within academic anesthesiology. Our work is starting; we continue to strive toward our goal for an equitable and inclusive society that better represents the diversity of our academic community.

As AUA members, we are academic leaders in our specialty. We are committed to adding our voice and to being the leaders of change in our specialty. The AUA Council will therefore propose an amendment to the bylaws in support of establishing a Leadership Advisory Board, to elevate the voices of our constituents, to anchor our work in best practices, and to achieve equity in our association. This serves to formally begin our work to achieve diversity, equity, and inclusion that we all hold as core values. 

## PRESIDENT'S MESSAGE *continued from cover*


The AUA has certainly had several important accomplishments over the last few years. In general, we have often engaged in activities intended to safeguard anesthesiology as a dynamic academic medical specialty, with a vibrant community of successful scientific, educational and medical leaders. The AUA has embraced leadership development within our field. As part of this focus, the AUA is prioritizing the mentorship of rising academics in anesthesiology, and is supporting initiatives such as the early stage anesthesiology scholars (eSAS). One of the most important innovations for the AUA has been the establishment of the Leadership Advisory Board, which will now plan activities of the AUA in collaboration with our Scientific and Educational Advisory Boards. It is also exciting to note that, in a secret electronic ballot with a high level of participation, the membership of the AUA has almost unanimously embraced new Vision and Mission statements, which are more relevant to the challenges we confront in 2020 and align better with the goals of early stage academic anesthesiologists.

The (new) Vision of the Association of University Anesthesiologists (AUA) is the advancement of academic anesthesiology as a dynamic specialty that makes substantive contributions to medicine, science, and society.

### **The (new) Mission of the AUA is to promote excellence in academic anesthesiology through:**

- Mentorship of academics in anesthesiology;
- Promotion of diversity and inclusion in academic anesthesiology;
- Facilitation of professional growth throughout the careers of educators, academic leaders, and researchers in anesthesiology;
- Organization of an outstanding annual meeting and provision of networking opportunities to academics in anesthesiology.

It has been my pleasure to serve the AUA as a Councilor-at-Large, as Secretary, as President Elect, and most recently as President. I look forward to continuing to serve on the Council for the next two years as Past President. Jeff Kirsch will be a dedicated and collaborative President; he brings fresh energy and exciting new ideas to the AUA. Jeff is supported by a committed, accomplished and experienced group of Councilors. We now also have strong representation at a leadership level from our three Advisory Boards as well as from the Early Stage Anesthesiology Scholars. Much has already been done to ensure that the AUA is more accountable to its members, and that it is forward looking and innovative in its approach. However, we shall have to do so much more as we strive toward our goal to build an equitable and inclusive Association that better represents the diversity of our broader society. We must ensure that we work tirelessly to achieve diversity, equity, and inclusion both within the AUA and within the specialty of anesthesiology.

Let's internalize the lessons of 2020 and ensure that the decade to come for the AUA is characterized by progressive action and disruptive innovation, rather than just honorific membership and business as usual. 



# FEATURED ARTICLE

## Emotional PPE: Protecting Healthcare Workers' Mental Health

### BACKGROUND

Much has been written about “flattening the curve” to avoid overburdening our healthcare system. The spotlight has primarily focused on availability of hospital and ICU beds, ventilators, medications, personal protective equipment (PPE), and other material resources. There has been less focus on a different limited resource, however, which is being quickly depleted — the mental health and wellbeing of healthcare professionals (HCPs).

Current stressors are varied and numerous. In some settings, limited availability of PPE and strict hospital policies have left many HCPs caring for patients without feeling optimally protected. In turn, they worry that they are putting their families at increased risk. Many are socially isolating or quarantining. Workplace rules, as well as prescribed roles and responsibilities, are constantly changing, which can make HCPs feel out of place and unprepared. On top of this, HCPs are witnessing profound human suffering. Patients are scared and institutional policies limit the family visitation that could otherwise provide them comfort. Even at end-of-life, many institutional policies do not allow for families to gather. Many HCPs silently grieve with families while feeling helpless in these circumstances.



**Ariel Brown, PhD**

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Even though HCPs often put on a brave face as they fulfill the duties to their patients, colleagues, and communities, many are suffering. They worry about our own health and that of their family's. Some feel a constant hum of anxiety or pressure. Others find themselves crying more easily or unable to sleep. Still others find that they have a much shorter fuse when dealing with other life issues. This is not business as usual, and with multiple future peaks of COVID-19 predicted, there is no definite end in sight.

### THE MENTAL HEALTH IMPACT

Before COVID-19, HCPs were already at increased risk for mental illness, addiction, and suicide<sup>1,2</sup>. The current pandemic has created unprecedented stressors and traumas for this population. Recent high-profile suicides of a New York emergency department physician and an EMT have highlighted to the public the mental health impact of COVID-19 on HCPs. In addition, recent research studies have provided empirical data illustrating the problem. Rossi et al<sup>3</sup> found that 50% of healthcare workers surveyed in Italy had signs of post-traumatic stress disorder (PTSD) and 25% had signs of severe depression. Lai et al<sup>4</sup> surveyed 1257 doctors and nurses in China and found that 50% had signs of depression.

Studies of HCPs in previous crises have found that PTSD is more likely to occur in employees who experience the following: witnessing death<sup>5</sup>, carrying out roles outside of one's usual remit<sup>6</sup>, and perception of personal threat<sup>7</sup>. All these factors occur on a daily basis among HCPs during the COVID crisis.

### GETTING HELP

It is common in healthcare to ignore physical symptoms of any illness and “carry on” with clinical duties. Many institutions have therefore created policies around what symptoms require intervention for possible COVID-19 infection. To our knowledge, however, no such policies have been widely adopted for monitoring mental health in HCPs. Given the empirical data showing a disproportionately high prevalence of mental distress in HCPs coupled with the pervasive reluctance of HCPs to seek services<sup>8</sup>, it is clear that the mental health needs in HCPs are not being sufficiently addressed.

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**Table 1.** Symptoms reflecting the physical and psychological impact of COVID-19 that warrant attention in healthcare professionals

SYMPTOMS OF PHYSICAL IMPACT OF COVID-19 INFECTION	SYMPTOMS OF PSYCHOLOGICAL IMPACT OF COVID-19 CRISIS
<ul style="list-style-type: none"> <li>• Feeling feverish</li> <li>• Sore throat</li> <li>• New cough</li> <li>• New nasal congestion / rhinorrhea</li> <li>• Myalgia</li> <li>• Loss of smell / taste</li> <li>• Dyspnea</li> </ul>	<ul style="list-style-type: none"> <li>• Feeling nervous, anxious, or worrying about little things</li> <li>• Inability to find pleasure or interest in activities</li> <li>• Feeling down, depressed, or hopeless</li> <li>• Sudden feelings of fear or panic</li> <li>• Repeated disturbing memories or dreams</li> <li>• Feeling jumpy or easily startled</li> <li>• Unable to perform at work or other activities because of personal feelings</li> <li>• Experiencing things in slow motion</li> <li>• Increased use of alcohol</li> <li>• Feeling that alcohol intake needs to be decreased</li> <li>• Feelings of inadequacy, guilt or shame</li> </ul>

NOTE: Physical symptoms as listed by CDC<sup>9</sup>. Psychological symptoms developed from Pentagon Post Disaster Health Assessment<sup>10</sup>.

Table 1 lists physical symptoms of COVID-19<sup>9</sup> that are commonly self-assessed on a regular basis by HCPs as part of hospital policies. We propose an analogous list of psychological symptoms to be self-assessed by HCPs. The list presented is a modified version of the Pentagon Post Disaster Health Assessment (PPDHA), developed to measure mental health outcomes in response to the 9/11 attacks<sup>10</sup>, and later validated as a prototype for rapid public health assessment of the mental health impact for traumatic events<sup>5</sup>. The below list includes symptoms across 4 mental health domains: depression, panic attacks, generalized anxiety, and alcohol abuse.

Regardless of how this constellation of psychological signs and symptoms is referred to (e.g., burnout, acute stress, moral injury, compassion fatigue), HCPs should pay careful attention and consider using them as triggers for reaching out for help. We think of this help as emotional PPE, providing protection from the psychological impact of COVID-19. Effective treatment is likely to not only to increase the well-being of the healthcare worker but also to contribute to better work productivity and improved patient safety outcomes<sup>11</sup>.

## THE EMOTIONAL PPE PROJECT

The Emotional PPE Project (ePPE) was formed by volunteers who want to address the immediate mental health needs of HCPs. The objective of ePPE is to connect HCPs in need with volunteer trained mental health professionals who can help them. A majority of HCPs report multiple barriers to seeking supportive services offered by their employer, most frequently: time to use service, access to solutions, unresponsive management, and stigma of asking for help<sup>12</sup>. The Emotional PPE Project was designed to ameliorate all of these barriers to care.

The Emotional PPE Project is simple, streamlined, and anonymous. On its website ([www.emotionalppe.org](http://www.emotionalppe.org)), it provides contact information for volunteer practitioners. Any HCP can select their preferred therapist. The therapist then directs treatment under their licensure as with any other client, except without fees or insurance. No one at ePPE has any contact with the HCP, and a firewall is maintained between ePPE and the practitioner/client relationship. All mental health practitioners



in the ePPE directory are dedicated to providing pro bono individual therapy sessions to HCPs in need so that insurance and cost are a nonissue. The service is independent from any institution that provides healthcare or employs HCPs, thus

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users of these services can be confident that their employers and colleagues will not be involved at any level. Consistent with evidence-based guidelines for treating crisis responders<sup>13</sup>, any HCP may access the database of hundreds of volunteer practitioners at any time, and all practitioners are available by telehealth.

In order to track the usage of ePPE, practitioners are asked to report back if they have seen a HCP through our services, without providing any information about the HCP. In under one month, ePPE has connected over 40 HCPs from 11 states with pro bono therapy sessions. This usage rate has barely scratched the surface of the available mental health practitioner pool. At the time of this writing, the service has recruited 285 volunteer licensed mental health practitioners who want to help, and the directory grows daily.

Our hope is that as awareness grows of the signs and symptoms of psychological distress in HCPs that more HCPs will unburden themselves by talking to trained professionals. In parallel, HCP employers and management must find ways to periodically assess the "mental health temperature" of HCPs and reduce barriers to treatment. Only through these changes will the mental health impact of COVID-19 on HCPs be eased.



### DISCLOSURES:

*"The authors are co-founders of The Emotional PPE Project. Ariel Brown is president of the board of The Emotional PPE Project and Daniel Saddawi-Konefka serves as a board member. Neither receives any financial compensation for their work in these roles."*

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# NEW!

*AUA has partnered with the International Anesthesia Research Society (IARS) and DocMatter to create a member community for high-quality, clinical discussions, especially to help in sharing your COVID-19 experience, ideas, and questions.*



## AUA DocMatter Community

**Learn more, sign up, and login  
to AUA DocMatter Community!**

**Available to you as a benefit of your AUA membership**, DocMatter is a networking platform tailored to the specific needs and requirements of the medical community. This partnership will be particularly relevant to connect with members at other institutions during this pandemic.

Through the AUA DocMatter community, you will be able to:

- Gain access to full information from the frontlines
- Collaborate and strategize on how best to prepare and meet the demands of this global health crisis
- Participate in a broader, 30,000-plus member Global COVID-19 Community
- Connect—not only with fellow AUA members—but with members of other anesthesiology groups from 8,000 institutions across the world

## EAB REPORT

# What I Learned About Education Research by Reviewing >250 Manuscripts on Education

Research in education is increasingly common and plays an important role in the development of our specialty. This increasing interest is principally driven by two factors: 1) a desire to establish evidence-based best practices in education;<sup>1</sup> and, 2) an opportunity for clinician educators to produce scholarship as part of a promotion pathway. Despite advancements in technology, medical students and residents spend the majority of their time training to be doctors in roughly the same way as they have been for the past 100 years.<sup>2</sup> The importance of developing evidence to support new techniques and practices (especially when these new techniques are time-intensive or more expensive than traditional approaches) is self-evident.<sup>1</sup> Unfortunately, the methods of many education researchers are not distinguishable from those of stamp collectors. Having read, reviewed, and edited no fewer than 250 manuscripts over the last decade, I offer the following ten suggestions to those interested in a career that includes research in education.



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**1. Just like any other academic endeavor, mentorship is critical.** The single most important factor for success is mentorship.<sup>3,4</sup> Indeed, the author could make the tongue-in-cheek suggestion that if readers of this article want to be successful, the most effective use of their time would be stop reading and find a good mentor! As the Mission of the AUA is to promote excellence in academic anesthesiology through mentorship of academics in anesthesiology, the Educational Advisory Board for AUA is a great place to find potential mentors. Under-represented minorities may require unique mentoring programs.<sup>3,5</sup>

**2. Hypothesis driven research that includes a power analysis and a clearly measurable outcome is a good place to start.** While this may sound like basic advice to seasoned clinical researchers, many educational research projects are missing these fundamental requirements. I speculate that many educators develop a novel (and often enormously creative)

program. After successful implementation of the new program, someone tells them, “This is great – you should write this up!” Unfortunately, this is not an effective way to conduct research and what results is not hypothesis-driven research, but an educational case report describing a novel program. Instead, work with a mentor to develop a hypothesis and a strategy to test it in a meaningful and measurable way.

**3. Work with a statistician who understands psychometrics to plan your study and analyze your results.** It is a surprisingly common misconception among inexperienced educational researchers that consultation with a statistician is unnecessary until the study is complete and the analysis is to begin. Waiting to work with a statistician until the study is complete is like asking an architect to design your dream home after construction has begun. A good statistician will help you design your study such that you have the

greatest possible chance of effectively testing your hypothesis. A statistician who is facile with psychometric analysis may be particularly helpful as psychometricians specialize in the objective measurement of skills and knowledge, abilities, attitudes, and educational achievement.

**4. In order to have meaningful results, you may need to conduct a multicenter trial.** After developing a hypothesis and a prospective study to test it that is meaningful and measurable, many education researchers perform a power analysis only to realize that in order to complete their study, they must enroll more residents or students than they have access to. This is understandably common as most residency programs are relatively small – there are few programs with more than 60 (CA1-CA3) residents, which significantly limits the kind of trial that can successfully be completed. When this happens, I would encourage the reader to consider a multicenter trial. Meetings of the Society for Education in Anesthesiology (SEA) are a terrific place to meet like-minded educators, who might be interested in participating in your study. Working with a second (or third) center is never easy, but novel trial designs such as a cluster randomized trial or stepped-wedge trial may help overcome certain challenges.

**5. Learner satisfaction should not be the primary outcome of your study.** When pressed to develop an outcome that is meaningful and measurable, many education researchers will fall back on “learner satisfaction” as a primary outcome. Superficially, this makes sense as we all want our learners

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to be satisfied and happy with their educational experiences. Unfortunately, learner satisfaction – especially if evaluated immediately following the educational intervention – is often inversely associated with efficacy.<sup>6,7</sup> Collecting data on learner satisfaction is important, but it should not be the primary outcome.

**6. Think twice before conducting a survey study (but, if you must, make sure the questions have established validity and the results will be highly relevant to the specialty with enduring value).** The ready availability of online survey tools such as SurveyMonkey ([www.surveymonkey.com](http://www.surveymonkey.com)) have vastly simplified the mechanics of conducting a large survey. Most journals are extremely selective about the number of manuscripts they publish that report the results of a survey. In general terms, the survey must be highly relevant to the specialty, have established validity, appropriate analyses, and have a large number of participants in order to be generalizable. Further, there must be a sense that the results of the survey will be of enduring value to the readership. To that end, the Medical Education section of Anesthesia & Analgesia has received 18 submissions since 2016 that report the results of a survey. Of these 18 submissions, 16 were rejected and 2 were accepted.


**7. Don't forget about using large databases to measure outcomes.** Large databases such as ASPIRE and MPOG can passively track the impact of an educational intervention on clinically relevant outcomes.<sup>8</sup> Many educational researchers forget that these databases exist and may provide the outcome data for which they are searching. If a before-and-after study is planned, remember to analyze the data using segmented regression<sup>9</sup> or like techniques.

**8. Think long term.** Just as in clinical research, we value long term outcomes more than short term outcomes.<sup>10</sup> While demonstrating improved performance immediately following an educational intervention is admirable, demonstrating sustained performance improvements weeks to months (or years) later is more meaningful.<sup>11</sup>

**9. Remember that all core competencies are important.** Most research in education focuses upon improving the medical knowledge of students, residents, or practitioners; however, there is more to being a physician than the accumulation of medical knowledge. In order to succeed as an anesthesiologist, one must possess both the medical knowledge and the humanistic desire to help and communicate with others: to have one without the other is to be incomplete.<sup>12</sup> Research into other areas of training is critically important yet under-investigated by all but a few investigators.<sup>13</sup>

**10. Team science can work for education.** Several departments have created education research laboratories (eLabs) that bring together interested individuals who can present work in progress, conceive new projects, discuss

relevant literature, and cultivate and sustain a community of educational scholars.<sup>14</sup>

Obviously, with the exception of mentorship, all of the above are not always applicable to every study. 

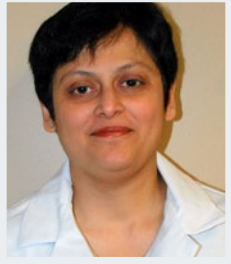
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# ANNOUNCEMENT

## EAB Welcomes New Members

The EAB welcomed four new members from the AUA membership: Drs. Arna Banerjee, Teresa A Mulaikal, Kenneth Shelton and David Wlody.



**ARNA BANERJEE, MD, MMHC, FCCM** currently serve as Associate Professor of Anesthesiology and Critical Care Medicine, Surgery, and Medical Education and Administration at Vanderbilt University Medical Center (VUMC) and the Assistant Dean for Simulation in Medical Education. Dr. Banerjee direct Vanderbilt's Center for Experiential Learning and Assessment (CELA) and is a member of several professional organizations where she has frequently held leadership roles. Dr. Banerjee studied medicine at VUMC and, during her tenure as faculty there, has served as a key educator, within the Department of Anesthesiology and Critical Care Medicine.




**TERESA A. MULAIKAL, MD, FASE** is Assistant Professor of Anesthesiology at Columbia University Irving Medical Center and Attending Physician, Cardiothoracic Anesthesiology and Care Medicine at New York Presbyterian Hospital where she serves as the Anesthesiology Residency Program Director. Dr. Mulaikal studied medicine at Northwestern University Feinberg School of Medicine in Chicago, has been a recipient of the Kathryn Cozine Teacher of the Year award and serves on several local and national committees, including Columbia University's Education Committee, as well as the National Academies of Sciences, Engineering and Medicine's Action Collaborative on Preventing Sexual Harassment.



**KENNETH SHELTON, MD** is the medical co-director of the Corrigan Minehan Heart Center ICU at Massachusetts General Hospital (MGH) as well as Assistant Professor, Anesthesia at Harvard Medical School. He studied medicine at University of California San Francisco School of Medicine, was a recipient of MGH's Service of Excellence Award as well as numerous Best Teacher recognitions. Dr. Shelton has served on many committees such as MGH's Clinical Competency Committee, Program Evaluation Committee, Data Safety and Monitoring Board (ICU Sleep Study), and is a member of numerous professional societies.



**DAVID J. WLODY, MD, FASA** is Chair, Department of Anesthesiology at SUNY Downstate College of Medicine and Chair, Department of Anesthesiology at Brookdale University Hospital Medical Center. Dr. Wlody is a member of several professional associations and has held numerous volunteer leadership roles, including Scientific Program Chair of the Society of Obstetric Anesthesia and Perinatology Annual Meeting; Scientific Program Chair and General Chair of the NYSSA Post Graduate Assembly; and Chair of the ASA Annual Meeting Oversight Committee. He studied medicine at the University of Vermont Larner College of Medicine and is a Fellow of the American Society of Anesthesiologists. 



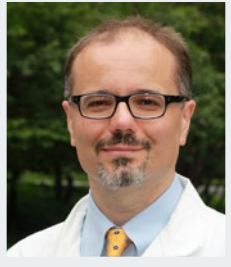
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Massachusetts General Hospital  
Boston, Massachusetts



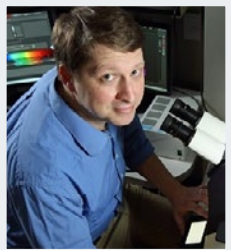
# ANNOUNCEMENT

## SAB Welcomes New Members

The Scientific Advisory Board requested applications earlier this year for new members to fill four open positions. Once again, we received a very large number of outstanding applications, confirming our members' commitment to service and scientific excellence. The SAB is proud to welcome the following new members, who start their three-year terms this spring:



**MAURIZIO CEREDA, MD**, is an intensive care physician and Associate Professor of Anesthesiology and Critical Care at the University of Pennsylvania, where he is director of the Surgical ICU and of the Anesthesia-Critical Care fellowship. He studied medicine at the University of Milan, where he also trained and worked as a faculty member. After a research fellowship at the NIH-NHLBI, he completed clinical training at UNC Chapel Hill and at The University of Pennsylvania. His NIH funded research is directed at the pathophysiology and biology of ARDS, using imaging (CT, functional and metabolic MRI) to understand the progression of lung injury and to predict patient outcomes.



**DAVID MINTZ, MD, PhD**, is Associate Professor of Anesthesiology at Johns Hopkins University. Dr. Mintz works primarily on how anesthetics and sedative medications act at the molecular and cellular level to disrupt the development of the central nervous system. Following a PhD in neuroscience at Mount Sinai, he completed residency and a T32 fellowship at Columbia. He also has interests in neonatal hypoxic brain injury and in the impact of perioperative medicine on the microbiome. David founded a microscopy core at Hopkins, and he is the faculty director for the Anesthesiology research residency track at and the incoming director of the Hopkins Anesthesiology T32 fellowship, pending the current renewal.



**RENE PRZKORA, MD, PhD**, is Clinical Professor of Anesthesiology and Chief of Pain Medicine at the University of Florida in Gainesville. Dr. Przkora attended medical school in Germany and received training in anesthesiology at the University of Florida and training in pain medicine at Massachusetts General Hospital. His research focusses on functional outcomes of pain interventions, pain management outcomes, and stratification of pain therapies and is supported by local and national grant funding, including the NIH for the EPPIC-NET clinical trial network. He is active in simulation through the University of Florida's Center for Safety, Simulation & Advanced Learning Technologies. Dr. Przkora is Director of the Multidisciplinary Pain Medicine Fellowship at the University of Florida and a junior editor for the American Board of Anesthesiology (ABA).



**DEEPAK SHARMA, MBBS, MD, DM**, is the Virginia & Prentice Bloedel Professor & Division Chief of Neuroanesthesiology & Perioperative Neurosciences and Program Director of Neuroanesthesiology Fellowship at the University of Washington, Seattle, WA. He is currently the President of Society for Neuroscience in Anesthesiology & Critical Care (SNACC) and is renowned for his expertise in stroke anesthesia. A clinician, educator, researcher and a long-standing member of the AUA, Dr. Sharma is internationally renowned for his expertise in Transcranial Doppler (TCD) ultrasonography and is the Education Director of Cerebrovascular Laboratory at the University of Washington. His research interests include stroke and cerebrovascular disease, TCD ultrasonography to study cerebrovascular reactivity and education in anesthesiology.

A very warm welcome to our new SAB members, and a heartfelt thank you to the many highly accomplished AUA members who submitted their CVs, but were not selected this year. I truly appreciate their commitment and contributions, and encourage everyone to please reapply next year.

We thank **Drs. Lucy Chen, Paul Garcia, Jae-Woo Lee, and Richard Levy**, who are completing their terms on the SAB, for their years of outstanding service. 



**Ines Koerner, MD, PhD**  
Chair, Scientific Advisory Board  
Oregon Health & Science University  
Portland, Oregon

# ANNOUNCEMENT

## A New Accreditation Process for Neuroanesthesiology Fellowships

Neuroanesthesia fellowships were a topic of great interest in the early years of the Society of Neuroscience in Anesthesiology and Critical Care (SNACC)<sup>1,2</sup>. The discussion and debate about fellowships has ensued over the almost 50-year life of SNACC. Maurice Albin, a SNACC founder, wrote a seminal article on the need for neuroanesthesia fellowships in the fall 2008 SNACC newsletter which brought to attention many of the questions within the history of accreditation.<sup>3</sup>

Here are some notable quotes over the years from SNACC leaders relating to the fellowship:

**Art Lam, 2003<sup>3</sup>:** "Neuroanesthesia is a subspecialty that has come of age; it has wide recognition and exists as a division in virtually all academic centers, many with fellowship training programs. Neurosurgeons have come to expect neuroanesthesiologists for the provision of special care and expertise for patients with major neurologic disease, and many centers have developed local protocols based on scientific and physiologic principles.

**Maurice Albin, 2003<sup>3</sup>:** "My paper for the 2003 SNACC meeting emphasized the remarkable changes that have transformed our neuroanesthesia practices since my own personal full-time involvement in 1962 and since the 1973 organization of the predecessor to SNACC — the Society of Neurosurgical Anesthesiology (SNA). This progress has been manifested by our enhanced knowledge of the dynamics of brain and spinal cord physiopathology and its interaction with the anesthetic state; by the formation of Neuroanesthesia Fellowship Programs in many of our University Academic Centers; by developing standards of care for many neuroanesthesia procedures; by bringing neuroanesthesia considerations into the residency and medical school curriculum; by the formation of SNACC and its recognition as a spokesman for our subspecialty by the ASA; and by the existence of the dedicated Journal of Neurosurgical Anesthesiology with Cottrell and Hartung as Editors — making this publication a focal point for world neuroanesthesiology.



**W. Andrew Kofke,  
MD, MBA, FCCM,  
FNCS**

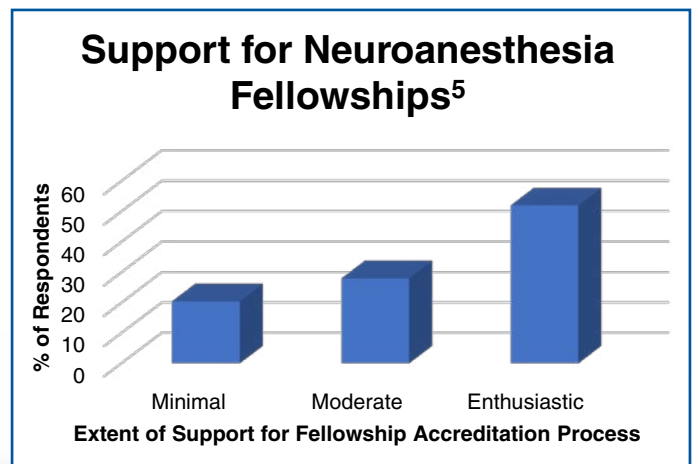
University of Pennsylvania  
Philadelphia, Pennsylvania  
Chair, International  
Council for Perioperative  
Neuroscience Training

**Maurice Albin, 2008<sup>3</sup>:** Again, I have made a plea for strengthening our Fellowship Programs and have advocated that we aim for subspecialty certification.

**Ramsis Ghaly, 2009<sup>4</sup>:** Among all the anesthesia subspecialties, neurosurgical anesthesiology enjoys the best diversity and development. The neuroscience field has been impacted not only in the neurosurgical and neurology fields but also by the neuroimaging, neuromonitoring, neurodevelopment and nanosurgery. The field is constantly changing and has a tremendous future. It is one of the rare fields that is in an infantile stage now and moving progressively.

Numerous articles have been published in the SNACC newsletter encouraging development of a formal fellowship curriculum. This debate resulted

in peer-reviewed research indicating support for fellowships<sup>5</sup> (figure 1) and development of curricular guidelines.<sup>6</sup>



**Figure 1.** A web-based survey was distributed and filled out by 339 US based SNACC members<sup>5</sup>. A majority of respondents endorsed the development of an accreditation process for neuroanesthesiology fellowships.

*continued on page 11*



Concurrent with the above-noted US-based SNACC discussion our colleagues in Europe, Canada, and UK have been conducting parallel discussions<sup>7-10</sup>. Valero et al<sup>9</sup> and Sewell<sup>10</sup> surveyed European and Canadian programs respectively finding a lack of uniformity in training standards and in Europe Valero noted general support to develop a neuroanesthesia fellowship accreditation system. Notably, Nathanson<sup>7</sup> points out that European neuroanesthesia and neurocritical care is undergoing significant changes. Colleagues in a number of countries are working together through a number of organizations, including the ESA, EuroNeuro, and the European Neuroanesthesiology and critical care interst group (ENIG) to improve education, training, research, and guideline production. Nathanson's essay underscores the importance and growth, internationally, of perioperative neuroscience oriented professional societies, which are supporting the growth of efforts like those of ICPNT. (figure 2).



**Figure 2.** Some examples of international perioperative neuroscience professional societies supporting the notion of an international network of ICPNT-accredited neuroanesthesia fellowship programs.

This debate arose in the context of the United Council of Neurologic Subspecialties (UCNS) developing a non-ACGME (Accreditation Council for Graduate Medical Education) non-ABMS (American Board of Medical Specialties) structure to develop neurocritical care fellowship accreditation and trainee certification. At that time neurocritical care was deemed too small and uncertain to support a full ACGME accreditation and ABMS certification process, tasks which UCNS was designed to undertake to eventually lead to an ABMS recognized

subspecialty. Thus, SNACC approached UCNS to support development of a similarly uncertain neurologic subspecialty, neuroanesthesiology. In initial meetings between SNACC and UCNS leadership this was welcomed as a good idea, focused on accreditation with certification to follow if sufficient interest was demonstrated. Thus, SNACC developed an application for membership in the UCNS which was submitted July 1, 2015. Unfortunately, the UCNS Board of Directors changed and those who reviewed the application declined the application, citing the main issue being that a neurologist could not participate in the neuroanesthesiology fellowship...

There also arose a very important concern. All of the already established accreditation bodies considered had a USA-based system; however, SNACC has always intended to be an international scientific society. There are also very prominent non-USA based neuroanesthesia fellowship programs with years of experience and significant research productivity, and not including them in the SNACC vision in establishing the accreditation system was not in line with SNACC goals. These fellowship programs, their directors and faculty are an important resource for networking and enriching the science of perioperative neuroscience for all trainers and trainees.

Undeterred by the UCNS events and in consideration of its international scope, SNACC then considered several options:

1. Do nothing more and allow the status quo to continue. This was deemed not an acceptable choice given the aforementioned support for developing formal neuroanesthesiology fellowships.
2. Following paths of other anesthesia subspecialties, seek ACGME as a mechanism of accreditation without certification. Concerns with this included the need to have fellowships be funded by Medicare funds which would entail a hospital choosing not to fund another fellowship position. Moreover, there was concern about an oppressive bureaucracy, inability to support junior faculty trainees, and geographic limitation to the United States.
3. Seek inclusion in the Neurosurgery Committee on Advanced Subspecialty Training (CAST) system. This is a program which provides for accreditation of neurosurgical subspecialties and consideration was given to petition for inclusion in this system. This was rejected as being out of anesthesiology and risking the frame for the outcome similar to that which occurred with UCNS.
4. Petition the International Anesthesia Research Society (IARS) to oversee an international neuroanesthesiology fellowship accreditation system. This was presented as an idea to IARS but was declined.
5. Develop a SNACC based international neuroanesthesiology fellowship accreditation service. This has been adopted. Details are at ICPNT.NET

*continued on page 12*



*International Council for  
Perioperative Neuroscience  
Training (ICPNT)*

The novel ICPNT blueprint described a council for establishing international standards of post specialty training in the field of perioperative neuroscience that would reside administratively in SNACC. The SNACC Executive Council amended the SNACC bylaws to allow such council to function, although more changes on governance and other issues are needed. A writing committee\* was created which was tasked with creating the foundational documents for this organization, subsequently named the International Council for Perioperative Neuroscience Training (ICPNT). This name indicates that the scope of the program is international and includes all perioperative neuroscience not limiting it to neuroanesthesiology; allowing for possible future fellowship support for neuromonitoring, neurocritical care, or other related disciplines. The writing committee, with administrative assistance of Ruggles Service Corporation, has created a web page, a charter for ICPNT and the program requirements for accreditation. Notably these requirements are written in a way to facilitate international differences in regional training culture and regulations, while describing a required minimum of curriculum and clinical experience to comprise an accredited neuroanesthesiology fellowship. Moreover, the program requirements allow for different methods of funding and can be from institutional training funds or requiring fellows function as part time billing faculty. In addition, the concept of an enfolded fellowship during residency is also supported. And finally, the ICPNT has developed an accreditation application and process for evaluation of programs.

Seven programs were invited to be pilot programs and have been granted accreditation:

Pilot Neuroanesthesiology Fellowships Accredited by ICPNT  
(as of December, 2019)

Northwestern: Chicago, Illinois, USA

University of Washington: Seattle, Washington, USA

University College of London: London, UK

Cleveland Clinic Foundation: Cleveland, Ohio, USA

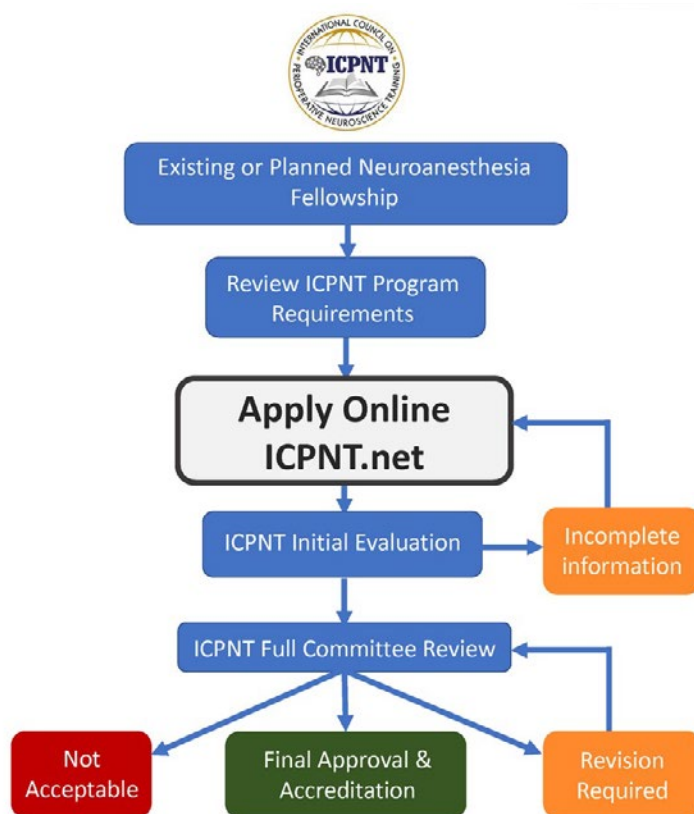
Columbia University Medical Center: New York City, USA

Odense University Hospital: Odense, Denmark

Vanderbilt University: Nashville, Tennessee, USA

Nine additional invited pilot programs have applications in preparation to be reviewed in April of 2020. These programs encompass the United States, Canada, United Kingdom, Europe, China, India, and South America. These pilot programs are providing feedback to enable ICPNT to open the accreditation service more broadly in April of 2020.

Notably we are introducing a novel approach to accreditation. Each application has two stages; the first is a formative submission by which reviewers provide feedback, then followed by a summative evaluation by which final accreditation is provided. Notably, every accreditation application is associated with constructive feedback to enable improvement of the applying program. (figure 3).



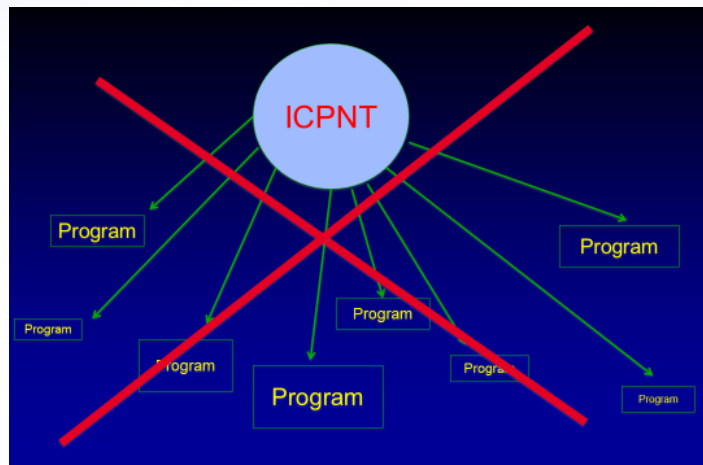
**Figure 3.** The application process for an ICPNT accreditation application. Note the two-stage process of formative followed by summative evaluation. The not acceptable category includes constructive advice to subsequently resubmit an application which will be acceptable.

ICPNT will also be differentiated from other accreditation systems in that we will promote and support the development of an international network of Neuroanesthesiology fellowship programs (figure 4). This will enhance education and possibly provide a research network. The network may allow for program

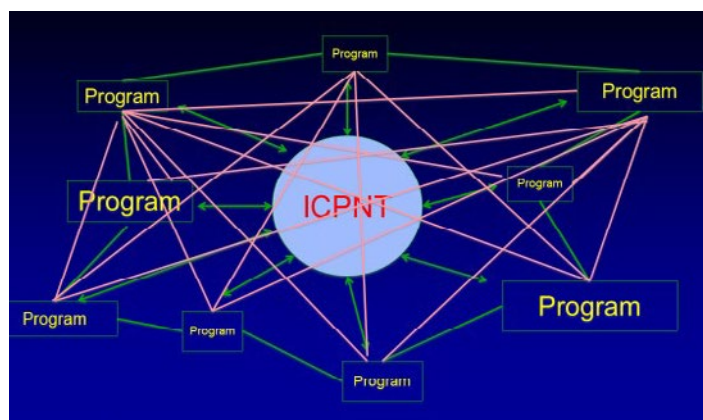
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strengths to be promulgated and allow programs with areas of weakness to tap into the network to help. We anticipate annual overviews of neuroanesthesia, international webinars, simulation sessions, visiting rotations, and so on.



**Figure 4a.** Traditional relationship of accreditation agents to programs. Programs do not work with each other. This approach is rejected by ICPNT.



**Figure 4b.** ICPNT will communicate with programs but also support development of an inter-fellowship program network to facilitate quality improvement, education, and research.

More information, including an FAQ list, is available at the new ICPNT website, [www.icpnt.net](http://www.icpnt.net) as well as the ICPNT twitter feed @icpnt. We welcome any advice from AUA members or any in the international academic anesthesiology community.



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*\* The content of this essay is derived from work of the ICPNT council and writing committee which has been involved in composition of the founding ICPNT documents. In addition, many of the figures included were presented by Rafi Avitsian at the 2018 EuroNeuro meeting ("Introducing a New Accreditation Process for Neuroanesthesiology Fellowship: ICPNT"). The full slide set from the talk is available on request.*

### The ICPNT writing committee:


W Andrew Kofke, Chair, Lara Ferrario, Secretary-Treasurer, Rafi Avitsian, John Patrick Bebawy, Maria Bustillo, Alana Flexman, Leslie Jameson, Phuping A Kavipat, Chanhung Lee, Nan Lin, Coleen Moran, Mike Nathanson, Chanannait Paisansathan, Jeffrey Pasternak, Shobana Rajan, Shilpa Rao, Steven Robischek, Deepak Sharma, Ricard Valero, Stewart Hinckley (Ruggles Advisor)

## MEMBER NEWS

# Dolores B. Njoku, MD, Announced as AUA Secretary

Dolores B. Njoku, MD, recently took the helm of AUA Secretary, succeeding President-Elect George Mashour, MD, PhD. Dr. Njoku has been a member of the AUA since 2008, when she began her journey toward a goal of contributing to her academic society. She is a recognized international leader in academic anesthesiology, specifically, induced autoimmune hepatitis, where she formulated a rodent model utilizing knowledge obtained regarding anesthetic hepatitis in patients.

She has been invited to describe research regarding this topic both nationally and internationally and has supported both national and international collaborations for several years. Dr. Njoku's commitment to the mission and vision of the AUA was first evidenced when she was appointed to the Scientific Advisory Board (SAB) and served as a member from 2011 to 2014. During that time, she contributed to the Communications Committee, served as an abstract reviewer, and moderated several poster sessions and podium presentations. Throughout Dr. Njoku's career, she has focused on developing innovative, multidisciplinary opportunities for academic anesthesiologists to promote their careers in the face of demanding clinical requirements.

Dr. Njoku is the Program Director and Pediatric Anesthesiology and Associate Professor of Anesthesiology and Critical Care Medicine at Johns Hopkins University. Please join us in welcoming her to her new role with the AUA. 



**Dolores B. Njoku, MD**  
**AUA Secretary**  
Johns Hopkins University, Baltimore, MD



## MEMBER NEWS

### Dr. Margaret Wood: “Three Things in Life”



Dr. Wood came from humble beginnings. She was born in Leeds, England in 1946; her father did not graduate from high school and she was the first member of her family to attend college—something she was keen to point out was true for many of her generation. Her family was incredibly supportive of her education, encouraging her to attend a competitive public high school and providing her with a loving family environment to study and succeed. Every Friday

night her father brought home a book for her to read which cultivated her life-long love of reading. But one of these books had a profound effect on her that would prove pivotal to her life in ways that could not have been foreseen at the time—“*The Citadel*” by AJ Cronin (published in 1937), which was widely seen as the inspiration for the UK National Health System, exposed the injustices and inadequacies of prewar health-care and the battles of the (fictional) physician Andrew Manson to apply the scientific method to overcome these inadequacies and injustices. Parenthetically in the age of COVID-19, his fictional battles against the scourges of infections such as tuberculosis and typhoid have a new resonance. Andrew Manson the protagonist in *The Citadel* trained at St. Andrews Medical School, Scotland and after reading this book, at the age of 11, Dr. Wood decided she too would become a physician and go to St Andrews University. After high school, she went directly to medical school, St. Andrews University of course. It was quite an experience when as an 18-year-old, she packed all of her belongings into one trunk, went to the train station and did not return home again until Christmas—and of course no cell phones to call home!

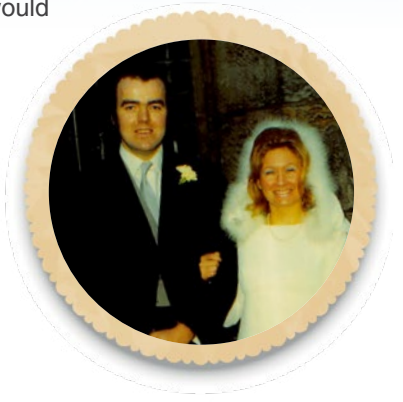
She remembers her first week of medical school in anatomy class. The Chairman of Anatomy, Rex Copeland told the entering class “you can have three things in life: (1) job/career, (2) hobbies/interests/social life and (3) a family. You can have these three things throughout your life but only two at one time”. In the mid-1960’s, women were limited to 10% of the medical school class and a successful career in a medical subspecialty in the 60’s and early 70’s was perceived as being difficult, perhaps even inappropriate for women. However, the late 60’s and early 70’s was a period when her generation believed they could do anything. There was a pervasive optimism in that immediate post war generation—“perhaps because there were so many of us” said Dr. Wood. The post-war austerity had disappeared, the

Beatles and Rolling Stones provided the soundtrack of the age and women wore mini-skirts(!) In anatomy class—as she says “over a dead body” she met Alastair, a fellow medical student who would become her husband.

This time was also the period when drug therapy underwent huge advances with improved understanding of drug targets and drug disposition resulting in major therapeutic advances—new antibiotics, beta blockers, anti-hypertensives and non-surgical treatments for peptic ulcer disease to name just a few. Not surprisingly therefore Dr. Wood enjoyed pharmacology and therapeutics in medical school and was intrigued by the intersection of therapeutics with clinical medicine.

After graduation from medical school and internship she made the decision to remain in academic medicine—at the time an unusual choice as there few if any role models of successful women in academic medicine. She chose to enter anesthesiology which was just beginning to emerge as a major specialty and by that time she had recognized that she enjoyed acute care medicine and the exposure to cutting edge medical technology. In pursuing a career, she considered pediatrics and forensic medicine, and though she had not been exposed to the practice of anesthesia in medical school, it was a new and exciting specialty and because it was new and expanding it was willing to give women an opportunity. She did her residency in Dundee and a short period in neonatal anesthesia at Alder Hey Children’s Hospital in Liverpool. In these days, hyperventilation, narcotics and no volatile anesthetics were the standard anesthetic practice for neonates. It was a pivotal experience for Dr. Wood, gaining critical experience in providing anesthesia for neonates—still relatively rare at that time. She recalls Dr. Jackson Rees (of the Jackson Rees Pediatric Circuit), a man with incredible charisma and optimism who seemed to always be just finishing a cigarette so that he appeared to come into the operating room surrounded by a whirl of smoke and a twinkle in his eye.”

Her research began in the Pharmacology Department in the lab of Ian Stevenson (Dundee, Scotland), studying drug



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metabolizing ability which she measured in OR personnel including her colleagues on her post call days and showed that enzyme induction occurred in OR personnel and therefore volatile anesthetics needed scavenging. This discovery (and other evidence) changed occupational health and safety administration (OSHA) rules. As a first year anesthesia resident, she presented her research at the Anesthesia Research Society (ARS), much like the AUA. For membership into the ARS you had to present a paper and the society then voted on whether to accept you as a member—an intimidating experience. It was a very select society with few members. However, she feels that the presentation of research at an early career stage in anesthesia was the inspiration of her future Apgar Scholars program to give residents a taste of the excitement of cutting-edge research and the discipline of its presentation at an early stage in their professional life


In 1976, she came to the United States, Vanderbilt, for 2 years. The chair of Anesthesia, Dr. Brad Smith, invited her to do a cardiac anesthesia fellowship. In the United States academic medicine was more open to women and encouraged a “can do attitude”. Dr. Bradley Smith gave her resources and mentorship which allowed her to develop her research program in drug metabolism. Pediatric cardiac anesthesia was coming into its own at Vanderbilt with the use of hypothermia and circulatory arrest. Harvey Bender was recruited as the surgeon and Thomas Graham was recruited into pediatric cardiology; it was an exciting time. The 1980s was a period of immense growth in pharmacologic agents including anesthesia drug development. All of this was fortuitous in her research efforts.

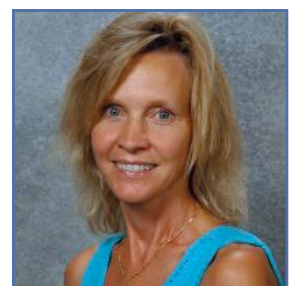
While at Vanderbilt she had two children. Though she was a woman, it did not seem difficult to her at the time to build her career in anesthesia both clinically and through publications. Through her work in anesthesiology and pharmacology, she became full professor with tenure at Vanderbilt in 1986 and was made Division Chief of Cardiac Anesthesia. In 1995, she was invited to assume the Chairmanship of Anesthesiology at Columbia University where she became the Chairman and E. M. Papper Professor.

1996 marked the era of health care reform with very few entering into the specialty of anesthesiology. It was not the easiest of times to assume a chair of Anesthesiology, as the program only matched 3 residents that year. The fact the specialty was in a crisis allowed her to solidify her department and focus

on the recruitment of outstanding residents. She started the Apgar Scholars program of mentorship in 2002. This allowed medical students to combine two years in anesthesia research with four years of clinical training. Other anesthesia programs have now adopted similar programs. For Columbia, it allowed growth of research in the specialty as these individuals would later become faculty in the Department. These individuals went on to foster an academic culture within the clinical arena. The idea that everyone can do everything, including research, in the current culture is no longer viable. However, Dr. Wood felt it was important to find a niche for everyone whether it was research, clinical, education or administration. Dr. Wood recognized how fortunate she was to have a School of Public Health at Columbia and that fostering collaboration with epidemiologists would improve the clinical research component of the Department. To further that collaboration and lead its integration into the Department, she developed the “Finster Endowed Professorship” in honor of Dr. Mike Finster.

Dr. Wood in many ways broke the barriers for women in Medicine—she was at the time one of the very, very few women tenured full professors at Vanderbilt, she was the first woman President of the AUA and the first woman Chair of a clinical department in Columbia’s more than 200-year history. Recently she has spoken and written about the issue of promoting gender diversity in medicine. In her editorial in *Anesthesia and Analgesia*, “*Women in Medicine: Then and Now*”(May 2015), she describes the important role for women in leadership who “have been there” to develop other women and how “one-on-one mentorship and coaching” can “pull women up” by providing strategic personalized advice. She also recognizes that while work, commitment and ambition are keys to success for both men and women, women suffer from difficulties in mobility—meaning it is often difficult for women to assume a leadership position that involves a geographic move—the perception remains that a family will uproot itself when a husband assumes a new job as his career advances but that same flexibility does not extend to women—and even if it did search committees do not necessarily believe it. For women to assume leadership positions that perception must change.

Throughout her career, she published over 140 manuscripts and book chapters. She remained the Chair of Anesthesiology at Columbia University until 2016—more than 20 years. She built a world-renowned Anesthesiology program with over 100 residents and more than 35 subspecialty fellows. More importantly, she served as a role model for many women and demonstrated that with passion, ambition and hard work all things are possible—she had all three! 



**Lisa Wise-Faberowski  
MD, MS, FAAP**

Communications and  
Website Committee Chair  
Stanford University  
Stanford, California

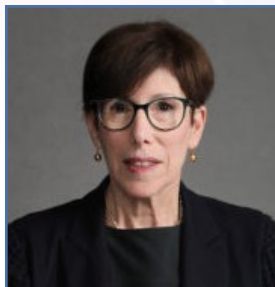


## FEATURED ARTICLE

# Diversity and Anesthesiology

The definition of “academic” is “relating to scholarship and education”; this definition suggests an openness to ideas and change, as new knowledge should lead to changes in behavior. In medicine, change in physician behavior is often slow for unclear reasons—and to the detriment of patient care. Ignaz Philipp Semmelweis was a Hungarian obstetrician who discovered the cause of puerperal fever in 1847 when he was a 29-year-old Chief Resident (“first assistant”) in the first clinic of the lying-in division of the Vienna General Hospital. Childbed [CBF] or puerperal fever was then the leading cause of maternal mortality. Semmelweis implemented chlorine hand disinfection to remove organic matter from the hands of the attendants, as soap and water alone had been ineffective. Hand disinfection reduced the maternal mortality from CBF 3- to 10-fold, yet most leading obstetricians rejected Semmelweis’ doctrine because it conflicted with all theories of the cause of CBF. Sadly, 200 years later we are still trying to achieve universal hand disinfection using alcohol by all patient care-providers.

The AUA was formed to be an academic organization for Anesthesiologists in 1953—to help lead in scholarship, education, innovation and progress in the field. To continue with this mission, there have been changes in the organization of the AUA. A novel pathway for early scholars was created and this membership component has increased and brought new ideas and vigor to the organization. The AUA has affiliated with the IARS to expand the organizational membership beyond the United States and improve communication with the world’s anesthesia scholarly organizations. These changes have led to



**Jeanine P. Wiener-Kronish, MD**

Immediate Past President, AUA  
Chief of Anesthesia and Critical Care  
Massachusetts General Hospital  
Boston, Massachusetts

positive outcomes, including more collaboration on clinical research [IMPACT studies]. And the AUA is now attempting to increase its diversity of members for the numerous reasons explained below.

There is increasing recognition that medical care must consider social determinants of health; there are “health disparity populations, including racial/ethnic minorities, less privileged socioeconomic status, underserved rural residents, sexual gender minorities and populations subject to discrimination.”<sup>1,2</sup>

Black and Latino physicians provide more care for the underserved; Black MDs cared for more black patients with Medicaid coverage and Latino MDs saw more Latino patients and more uninsured patients.<sup>3</sup>

We want to educate more diverse anesthesiologists to help care for our all of the world’s populations. This would be a very positive outcome, given the lack of anesthesiologists in Africa and in much of the world’s poorer economies.

There are other benefits to increasing the diversity of our faculty and AUA membership. There is data to document the academic and the scientific benefit of more diverse faculty; papers written by a diverse group receive more citations and are published in journals with higher impact factors.<sup>4</sup> This is also true for gender diversity. Gender-heterogeneous working groups produce higher quality science.<sup>5</sup>

Sadly, there is also data that bias is pervasive in science and in medicine. R01 funding less likely to go to African Americans

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than White applicants. Although proposals with strong priority scores were equally likely to be funded regardless of race, Asians are 4 percentage points and black or African-American applicants are 13 percentage points less likely to receive NIH investigator-initiated research funding compared with whites. After controlling for the applicant's educational background, country of origin, training, previous research awards, publication record, and employer characteristics, we find that black applicants remain 10 percentage points less likely than whites to be awarded NIH research funding.<sup>6</sup>

How is gender diversity in Anesthesia? Well not great. The percentage of medical school graduates, anesthesiology residents, and anesthesiology faculty members who are women has increased since 1985; however, the rate of increase in the percentage of women is significantly faster for medical school graduates compared with anesthesiology residents ( $P < 0.001$ ) and faculty ( $P < 0.05$ ).

The percentage of women anesthesiology faculty members who were full professors in 2006 was 6.5% compared with 17.7% of men faculty ( $P < 0.001$ ) and is not significantly different than in 1986 ( $P = 0.27$ ). Fourteen percent of full anesthesiology professors were women and this does not differ from all clinical specialties combined (15%). Women comprised 12.7% of academic anesthesiology chairs and 10% of all medical school department chairs in 2006, significantly higher compared with 1993 ( $P < 0.05$ ). Currently, 8% and 11% of editors and associate editors of Anesthesiology and Anesthesia & Analgesia are women, respectively. Eighteen percent of American Board of Anesthesiology oral board examiners in 2007 were women compared with 8% in 1985 ( $P < 0.05$ ). The percentage of time in which women have served as anesthesiology society leaders was significantly greater during 1997-2006 compared with 1987-1996 ( $P < 0.001$ ). The proportion of competitive research grants awarded to women has not changed over several decades.<sup>7</sup>


The AUA council created a task force for Diversity and Inclusivity in May 2019 and held its first meeting at the AUA meeting in 2019. The taskforce recommended an exploration of the current membership demographics and a survey to collect feedback on the future direction of the organization. The findings of the survey documented that 475 surveys were completed, and white men make up 72% of those who responded to the survey and 68% or 326 white male members were over 51 years of age. In fact, 42% of all responders to the survey were older than 61 years of age. Only 57 of the men who responded were not white; only 1.8% of the male respondents identified themselves as African American or Black. There were 80 respondents identifying themselves as women; 68% of the women were identified as white and 37 women were identified as other than white, including 15.6 % as Asian and 6.6% as Black or African American.<sup>8</sup>

Therefore, the women members were more diverse than the men and younger than the men; ~46% of the women were 50 years or younger. Notably, ~17% of underrepresented minority faculty were associate members and this is in contrast to ~5% of the white respondents.

The conclusions that can be drawn from the survey are that we need to actively recruit more diverse members, as our membership does not represent the current medical school population at all. Furthermore, the mission of the AUA, to enhance scholarship and education, needs to be transmitted by more than chairs of departments, as many full and associate members stated they did not have chairs that actively participate in the AUA. The other findings of the survey will be discussed at the next business meeting at the AUA 2020.

If the goal of the AUA is to increase the scholarship and education in anesthesiology, we must increase our diversity, so as to improve our science and broadening of our information exchanges.<sup>9</sup>

Anesthesiology is not the most diverse academic field and for the reasons stated above, we must work harder to improve this. Ideas include promoting mentoring of all of our young faculty, but especially our underrepresented minority faculty.<sup>10</sup>

We welcome your input and ideas; our goal is to expand our knowledge and thinking and that is why we are proposing to create a third board of the AUA, that of Leadership and Diversity, so that we can continue to be the home of scholarship and education in anesthesiology. 

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# ANNOUNCEMENTS

## \$9 million Grant Awarded to CROWN Collaborative

*Investigations are now underway to explore promising therapeutic treatments for the protection of healthcare workers against COVID-19*

An international group of physicians and scientists recently established the COVID-19 Research Outcomes Worldwide Network (CROWN) Collaborative, a global research network charged with investigating promising therapeutic treatments to protect frontline healthcare workers from COVID-19 infection. Washington University School of Medicine in St. Louis is serving as the central clinical coordinating center for the CROWN Collaborative under the leadership of IARS Board Member Michael Avidan, MBBCh, FCASA. Dr. Avidan is a Principal Investigator for the study.


To support this important work, the COVID-19 Therapeutics Accelerator awarded \$9 million in philanthropic support to the CROWN Collaborative for research and development to bring effective COVID-19 treatments to market quickly. An initiative with contributions from an array of public and philanthropic donors including the Bill and Melinda Gates Foundation and Wellcome Trust, the COVID-19 Therapeutics Accelerator is aimed at speeding up R&D and slowing down the spread of COVID-19.

Comprised of investigators from prominent research organizations in African, European, North American and South American countries, including Cameroon, Canada, Ghana, Ireland, Peru, South Africa, Switzerland, the United Kingdom, the United States, and Zambia, the CROWN Collaborative is testing whether the antimalaria drug, chloroquine, can prevent COVID-19 infection or decrease its severity in healthcare workers on the frontlines.

Healthcare workers are at a higher risk of contracting COVID-19 due to repeated exposure to infected patients. Approximately 30,000 healthcare workers from around the globe, including those from lower- and middle-income countries, will participate in this five-month clinical trial, called the CROWN CORONATION trial. In countries with few available healthcare workers, COVID-19 infection would prove a significant setback for public health.

Healthcare workers participating in the CROWN CORONATION trials will be divided randomly into four groups and administered three different, well-established chloroquine dose schedules as well as an inactive placebo for the fourth group. The goal will be to determine whether the trial participants are prevented from infection or develop a decreased severity of the COVID-19 disease if infected.

Laurence Lovat, MD, PhD, a professor of gastroenterology and biophotonics at University College London in the United Kingdom, will lead the data collection from the trial sites. In addition to Dr. Avidan, the Dr. Seymour and Rose T. Brown Professor and head of the Department of Anesthesiology at Washington University School of Medicine in St. Louis, other principal investigators for the trial include Ramani Moonesinghe, MD, a professor of perioperative medicine at University College London, and Helen Rees, MD, executive director of the Wits Reproductive Health and HIV Institute in Johannesburg. Other site leaders include Professors David Mazer, Eric Jacobsohn and Jessica Spence in Canada, Professor Bruce Biccand and Dr. Leon Du Toit in South Africa and Professor Ellen O'Sullivan in Ireland, as well as many leaders of other specialties and fields in the additional countries represented.

Designed to learn from early study results, the trial will focus on the protection of healthcare workers so they can continue to care for patients infected with COVID-19. For more information, [click here](#). 

# Initiative for Multicenter Pragmatic Anesthesiology Clinical Trials (IMPACT) Award Recipient



## Matthieu Legrand, MD, PhD

*The choice of vasopressors for treating hypotension during General Anesthesia: A pilot pragmatic cluster cross-over randomized trial (the VEGA-1 trial)*

Professor in Residence  
Department of Anesthesia and Peri-operative Care  
University of California, San Francisco

IMPACT is the result of a consortium of academic anesthesiology organizations who seek to stimulate pragmatic research in the U.S. The goal of IMPACT is to advance scientific knowledge in anesthesiology, and enhance care in perioperative medicine, critical care, pain management, and peri- and post-partum care. The IMPACT grant is designed to facilitate large pragmatic trials in an effort to answer important questions in anesthesiology-related research.

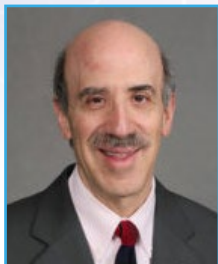


## IARS is seeking candidates for the position of Medical Officer for the SmartTots Public-Private Partnership.

Under the oversight of the SmartTots Steering Committee, the Medical Officer will collaborate with investigators and other stakeholders to shape the direction of SmartTots, collect and analyze data from ongoing research, and support the design of new research studies. This is a part-time position to be funded by a contract between the IARS and the candidate's academic institution. [Learn more](#)



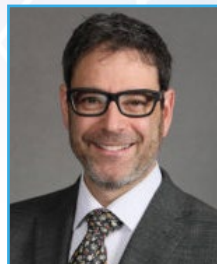
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## SUBMISSION GUIDELINES

Are you interested in contributing an article to AUA Update? Please familiarize yourself with the submission guidelines before you proceed. Thank you for your interest and contact Dr. Lisa Wise-Faberowski, MD, [lwf1212@stanford.edu](mailto:lwf1212@stanford.edu), with any questions.

## CALL FOR ARTICLES FOR ISSUE 2 OF AUA UPDATE 2020



If you have an idea for an article, an announcement, or an opinion on a recently published article, please submit your proposal/article to Dr. Lisa Wise-Faberowski, MD, [lwf1212@stanford.edu](mailto:lwf1212@stanford.edu) before August 31, 2020. If your article is selected, we will contact you for editing and formatting.



**AUA**

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## INCLUSION AND EQUALITY

The Association of University Anesthesiologists (AUA) Council is strongly committed to creating a culture within our organization with inclusion and equality as core values. We believe that each of our members' institutions should also strive to attain a culture where all people are welcomed and equal. Black Lives Matter (BLM) is deeply interconnected with our ideals of inclusion and equality, and we wholeheartedly support the BLM movement.

### JUNETEENTH

Therefore, we are calling for recognition and celebration of the holiday known as Juneteenth, which is this Friday, June 19.

Juneteenth marks the anniversary of the end of slavery, on June 19, 1865. The holiday has historically been an important annual celebration in the Black community. The AUA Council believes that this year – 155 years after the abolishment of slavery – it should be celebrated in all communities, and to serve as an annual reminder that racism, intolerance and injustice to any group has no place in medicine or our community as a whole.

### LGBTQ SUPREME COURT RULING

This month is not only the time of year that Juneteenth is celebrated, but is also the annual Pride Month celebration. The AUA Council also recognizes and supports the civil rights of LGBTQ individuals, and we would like to applaud the United States Supreme Court for its ruling this past Monday (June 15, 2020) that protects gay or transgender individuals against employment discrimination. Steps like these are crucial strides toward creating a fair, just and inclusive culture for all but clearly there is more work to be done.

### AUA LEADERSHIP ADVISORY BOARD (LAB)

In response to the current climate, the AUA Council has established a Leadership Advisory Board. The LAB will also help strengthen our organization by developing strategies and tactics to:

- Establish an equitable and inclusive environment for AUA members; and
- Engage in deliberate outreach within academic anesthesiology to achieve diversity within AUA membership.

