American Society of Anesthesiologists Resident Component Newsletter

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ANESTHESIOLOGY 2018

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Transition to Practice: Life After Residency The Benefits of a Fellowship Jason S. Chi, M.D.

Stanford University Department of Anesthesiology VA Palo Alto, Palo Alto, California

One of the key questions that all residents face during their training is whether to pursue a fellowship. Fellowship training offers many advantages and opportunities, but the appeal of being finished with training is also very strong. In this article, we'll look at some of the arguments in favor of fellowship training.

Increased marketability

Fellowship-trained anesthesiologists offer value-added skills which allow practice groups to demonstrate their value to surgeons and hospitals. Having a fellowship can also be a way to "get a foot in the door" in a competitive job market, and serves as a springboard for those seeking an academic career. The value of a fellowship extends beyond simply performing cases or procedures; fellowship-trained anesthesiologists can use their expertise to provide consultation or start programs at hospitals and surgery centers. For

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example, a regional-trained anesthesiologist could set up a nerve block catheter service for a surgery center's outpatient total joint program, or a pediatric-trained anesthesiologist could advise on anesthesia staffing and hiring for a hospital that is starting a pediatric surgery program.

Increased competition from CRNAs and mid-level providers

The American Association of Nurse Anesthetists (AANA) continue to lobby aggressively for increased autonomy and scope of practice. They have made tangible gains in recent years. In one example, the Department of Veterans Affairs (VA) proposed granting CRNAs "full practice authority" in 2016, but the VA decided against this only after a fierce lobbying campaign organized by the ASA. It should be noted that the VA's decision was not based on a judgment of CRNA qualification, but rather, veteran access to care.1 The VA also voiced its willingness Transitioning to Practice: Life After Residency Continued from Page 1

to reconsider granting full practice authority for CRNAs should access to care become an issue in the future.

The line between a CRNA and a general anesthesiologist is becoming increasingly blurred; in many institutions, CRNAs now perform nerve blocks, central lines, labor epidurals, and cardiac cases, with variable levels of supervision. As healthcare costs continue to climb, hospitals are increasingly using mid-level providers to fill patient care roles. Mid-level providers are growing in number and are becoming increasingly accepted as the primary caregiver in the physician-patient interaction,2 a role historically filled only by physicians. The increasing visibility and autonomy of mid-level providers adds legitimacy to the AANA's efforts to increase CRNA scope of practice.

Develop a skill set that others don't have

A worker is best protected from competition, and can demand a higher compensation, when he/she possesses a skill set that is difficult to learn and perform. Recent advances in technology such as the video laryngoscope, YouTube, and high-guality ultrasound make learning and performing core anesthetic techniques easier than ever. Fellowships provide the opportunity to gain a skill set which cannot be easily learned or imitated. Thus, fellowship -trained anesthesiologists often perform cases that other anesthesia providers shy away from, making them invaluable resources to anesthesia groups and hospitals. While accurate compensation data are hard to come by, there is ample anecdotal evidence that the long-term financial gain from fellowship training outweighs the short-term loss. Increased compensation can come in the form of increased pay, a subspecialty call stipend, or simply, the ability to be hired into a more prestigious group practice.

Future unknowns

Unexpected life events can occur at any time with little or no warning. Examples include: death or illness of a family member, group takeover or buyout, and contract termination/ non-renewal. Furthermore, reimbursement for anesthesia services can be influenced by external factors such as legislation (i.e. The Affordable Care Act / Obamacare) and market forces (i.e. the rise of HMOs in the 1990's). Any of these changes can force a search for new employment, often with the added pressure of preexisting financial and familial obligations (i.e. mortgage, child-rearing). In these situations, a prior fellowship can be advantageous, as it broadens one's network and opens doors to employment opportunities. In a sense, fellowship training can be thought of as a bit of "insurance" against disruptive events.

On the other hand, unforeseen changes can benefit fellowship-trained physicians. To give one example, the total number of adult Ventricular Assist Device (VAD) implantations went from 2,156 in the period 2006-2010 to 10,174 in the period 2014-2017, a 5fold increase in seven years.3 Advances in technology have allowed VAD devices to become significantly smaller, easier to use, and more widely adopted. As a result, there is now an increased for ICU physicians demand and cardiac anesthesiologists with VAD experience. Fellowshiptrained physicians are better positioned to adapt and apply new advances in medical technology.

Conclusion

Fellowship training confers many career benefits to an anesthesiologist, with little downside. Residents should strongly consider pursuing a fellowship in order to maximize their long-term professional and financial success.

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INTERESTED IN GETTING INVOLVED?

Contribute to the ASA RC Newsletter!

If you are interested in writing for an upcoming newsletter or would like to communicate with the Resident Component Governing Council, please contact asa.residentsecretary@gmail.com

Fellowship Spotlight: Cardiothoracic and Critical Care Anesthesia Meena Bhatia, MD

Division Chief, Critical Care Medicine Department of Anesthesiology University of North Carolina at Chapel Hill

Why did you pursue both a cardiothoracic and critical care fellowship?

The beauty of anesthesiology is the diversity of what you can pursue once you complete your Personally, I loved the training. operating room, but I was also interested in the management of patients once they left our care. Cardiothoracic patients are a challenge; they are complex, and often have intricate physiology that requires a deep understanding in order to treat them effectively. Completing cardiothoracic а fellowship allows vou to understand the intraoperative complexities of these patients. The postoperative course, however, can be very different. The body has a unique way of healing and doing a fellowship in critical care medicine gives you insight into this process. I spend half of my clinical time in the operating room with an emphasis on cardiothoracic cases and the other half in the cardiothoracic intensive care unit, caring for those very same patients. Completing a dual fellowship allows me to be a perioperative physician. Whether I am in the operating room or the intensive care unit, I can use the skills from each experience to enhance the care I provide on a daily basis.

What is the goal or intent of doing both a cardiothoracic and critical care fellowship?

Embarking on a dual fellowship, you are forfeiting two years of potential work experience and the financial implications of this are not minor. Whether you choose to critical do care or cardiothoracic first, each year has challenges and intense new experiences.

The goal of a critical care fellowship is to gain experience working with a variety of critically ill patients. You will spend several months in a cardiothoracic ICU, surgical ICU, medical ICU, and perhaps even a neuro or burn ICU. In a one-year span, you will have taken care of a wide variety of patients with a wide spectrum of critical diagnoses. You will learn how to navigate and lead in a multi -disciplinary model and develop interpersonal relationships with leaders from multiple fields of medicine. Most fellowships also aim to teach point of care ultrasound, which is a skill that can be useful in many clinical settings.

The goal of a cardiothoracic fellowship is to expose fellows to a wide variety of cardiac, vascular, and thoracic pathology. You will take care of very ill and very challenging patients, and ultimatelv gain deeper а understanding of their complex physiology. The fellowship is often 'cardiocentric,' in that the majority of your time will be doing advanced pump cases,

mechanical circulatory support, transplant, and innovate valvular surgery.

Transesophageal

Echocardiography, both 2D and 3D, is a core component of the curriculum and fellows will obtain advanced perioperative certification at the conclusion.

Both fellowships encourage each fellow to complete a research or clinical project that is to be developed over the year. There is an ongoing emphasis to engage fellows in quality improvement processes that focus on system improvements and/or patient safety. Fellows in both years will encouraged attend be to subspecialty national meetinas and present their projects. Scholarly activity and national presence serves a dual purpose in that it introduces trainees to the ongoing advancements in their subspecialty but also allows fellows to interact with others in their subspecialty community. It opens the door of opportunity for both professional growth and career advancement.

What career paths are typically taken by fellows who pursue dual fellowships?

There are a number of paths that can be taken after completing a Some may dual fellowship. choose to pursue an academic career in which they split their time evenly between ICU and OR (with an emphasis on cardiothoracic OR). The choice of ICU is wide critical open: after а care fellowship you can functionally operate in a surgical ICU, a cardiothoracic ICU, burn ICU and even a neuro ICU. That decision is generally based on institutional culture and personal preference. Some folks choose to only practice in one area and not practice in both capacities. Other people choose to join private practice groups, doing either a mixture of both or just one discipline. There really are endless options. In my experience, I would say a majority of people who choose to complete a dual fellowship generally take academic jobs with a variety of clinical schedules. The advantage cardiothoracic of beina both trained and critical care trained is your flexibility in terms of clinical assignment. It is a huge asset to have people with these skills in either a private or academic setting.

Where do you see the future of dual fellowships heading over the next 5-10 years?

I foresee the dual fellowship track becoming increasingly popular. The market. especially in academics, for anesthesiologists who provide dual services is on the rise. More and more intensive care units across the country are into 'anesthesia moving run' entities where anesthesiologists provide the majority of the work

force. I would not be surprised if more programs started offering residents a choice of doing the dual fellowship at the same program. Because of rising interest in completing a dual fellowship, I imagine more institutions will be interested in starting fellowships and expanding the options for applicants.

What type of resident do you expect to be successful in a dual fellowship?

Because a dual fellowship is a two -year commitment, the residents that succeed are those that are motivated. The days are long and the nights seem longer. These two years are rigorous but the training and understanding that fellows gain is unparalleled. Residents who are hardworking, passionate, and enthusiastic about caring for these patients are the ones that succeed. As the fellows progress through each year, they will gain more confidence, and eventually develop into leaders in the care team of these patients respective units. Both and fellowship years offer some level of elective time where fellows can expand their training into learning more about perfusion, point of care ultrasound, advanced heart congenital cardiac failure. anomalies, transfusion medicine. etc. The most successful resident is one who is humbled by these patients and willing to put in the necessary work to gain insight into their pathology.

Important deadlines? Licensing board, or certification requirements?

Both fellowships are part of the match process. Residents typically submit applications in the fall and winter of the previous year.

Interviews generally begin after the New Year and can go as late as May. Typically, Match Day is in late May or early June. Both fellowships have exemptions to the match, which can be found on their respective websites. If you are interested in doing a dual fellowship at the same program, that is an exemption, and you can be offered a spot outside of the match. If you are interested in doing each fellowship at a different program, you will apply to each program individually and undergo the match process for both. Whichever fellowship you choose to do first, the application will need to be done during your CA-2 year. The second year of fellowship will require the application to be done during your CA-3 year.

After completion of the cardiothoracic fellowship, fellows will take the National Board of Echocardiography (NBE) Advanced Perioperative TEE examination (PTEeXAM). This allows anesthesiologists to perform intraoperative / perioperative TEE to guide clinical and surgical decision-making. After completion of the critical care fellowship, fellows will take the ABA Critical Care Medicine board examination. The NBE is starting a new examination, the NBE Examination of Special Competence in Critical Care Echocardiography CCEeXAM) which focuses on point of care transthoracic echocardiography.

Both certifications Require recertification every 10 years.

A Fellow's Perspective...

Megan D. Henley, MD

Vanderbilt University Medical Center Adult Cardiothoracic Anesthesiology Fellow 2018-2019 & Critical Care Anesthesiology Fellow 2019-2020

Why these fellowships?

Entering anesthesiology residency, I had an idea that cardiac anesthesia was the subspecialty for me, but found that I also truly missed the ICU. Beyond the challenge and complexity of a perioperative surgical patient and the desire to become a true expert consultant of anesthesiology, I also enjoyed being identified as my patients' "doctor," as I fulfilled the role of not only a talented clinician but also a compassionate caretaker and teacher to our patients, families, students, and colleagues. Having enjoyed the role of educator throughout my premedical and medical education, I knew that academic practice would likely follow the completion of my training, and decided to pursue fellowship training in order to hone and develop skills toward this end.

Thanks to these insights, I decided to pursue dual fellowships in adult cardiothoracic and critical care anesthesiology. While this is an increasingly common venture, it remains logistically complex and a predominantly anecdotally guided application process; the only resource we have, especially for those at institutions without either fellowship, is speaking with those who pioneered this dual training before there were even national Matches.

How does the application, interview, and match process work?

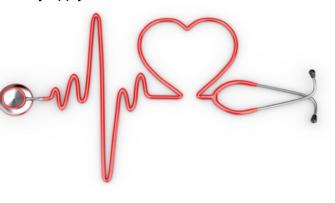
Applying for both fellowships is unfortunately not as easy as applying to a "dual" or "combined" two-year program. While a few two-year integrated positions exist, the majority are simply two sequential years of adult cardiac anesthesia and critical care anesthesiology fellowships. It is a two-year process that can involve a match exemption in many situations.

You must first decide whether you would like to complete your training at two different programs, potentially necessitating a move in between. Like many, I chose to complete both fellowships in the same location in order to have reinforcement of knowledge between fellowships as well as continuity of the hospital system, ORs and ICUs, faculty, and model of care. Of course, this may mean that you don't attend the reputed "best" for both fellowships, but there are many program options that offer equally strong and excellent training in both. Your choice will determine your approach to applications.

Among six criteria (<u>https://socca.org/fellowships-overview/</u>), those completing residency at their desired fellowship institution and those intending to complete more than one year of training at a single institution are eligible for a match exemption, allowing a program to make an offer for both positions simultaneously "outside of the Match." However, this is somewhat of a misnomer, as exemptions still require completion of a rank list and a formal Match in two sequential years.

To apply for both fellowships in the same location, you will actually apply to both the Cardiac and Critical Care

matches in November of your CA-2 year through the San Francisco Match. The Cardiac match usually opens on November 1st and Critical Care opens about 2 weeks later. Unlike ERAS, you can complete and submit your application to programs on this opening day, necessitating significant forethought in having your CV, personal statement. letters of recommendation. professional picture, and multiple other documents (transcripts, MSPE Dean's Letter, and board and ITE scores) ready to submit. Due to the time frame, CA-1 ITE scores are the only ones submitted with applications. Once the SF Match documentation is complete, you will need to contact each program to express your interest in



dual fellowships. Many programs also require copies of some or all of the above documents to be submitted by mail or email, which can be a tedious, time-consuming process. It takes approximately 2 weeks for the SF Match to distribute materials, after which programs review applications and make interview offers. For the most part, programs will coordinate internallv to offer integrated visits for interviews with both programs. This is often done in one, longer interview day, but is occasionally done in two back-toback days, increasing the need for time off from residency for travel and interviews.

Interview stake place

predominantly between January and May with a rank lists due in late May or early June and a mid-June Match. Those receiving an "out of match" dual offer will formally accept their fellowship positions in writing, withdraw from the second fellowship's match, rank their program alone as #1 in the single Match, complete exemption documentation, and undergo the Match for only their first fellowship that year. The next year, a second Match application and additional exemption documentation will be submitted, with the second program ranked alone as #1 to complete the Match for the second fellowship.

For example, since my experience was that of an "outside of match" dual offer at a single institution, I qualified for a match exemption and received and accepted offers in Spring 2017 before formally matching for Cardiac Anesthesia in June 2017 for a 2018-2019 position and Critical Care Anesthesia in June 2018 for a 2019-2020 position. You will note

that both applications and matches occurred prior to completion of residency.

Those opting to only apply for fellowship positions at two different institutions will not qualify for the match exemption discussed above (though may qualify for others), and thus will individually apply to respective programs in the CA-2 and CA-3 year and will rank multiple programs in the Match as with residency.

During the application and interview process, one ultimately must also decide the order in which to do the fellowships. There are arguments for cardiac first (continue the clinical momentum of residency. have strong а foundation before critical care CT fellowship for ICU-heavy fellowships aspirations) or or critical care first (have a strong critical care foundation before managing the complex cardiac patients, spend the year out of the OR first so that your cardiac year prepares you for attendingship). For some, programs may guide this decision as they traditionally only offer one order or attempt to balance multiple dual fellows between two years.

What things should I look for during interviews?

As discussed in the Winter 2018 Fellowship Spotlight on Cardiothoracic Anesthesiology Fellowship, there is wide variability in cardiac programs. Differences are largely in annual case volume, case "sitting" versus supervision or a balance of both, and distribution of clinical case types (transplant, cases, aortic cases. pump structural heart. robotic and minimally invasive procedures.

etc.) Critical care fellowships have similar variability with differences primarily in the "home" ICU (most are surgical ICU based with a CTICU base in a few), the exposure to different ICUs (burn, neuro, trauma, transplant, medical, VA, etc.), the amount of echo experience (TTE and TEE), and dearee of fellow autonomy. structure Didactic and call schedules/responsibilities also vary significantly. Asking about these things in interviews are key to guiding your decision, but it's also important to get a feel of the program overall and decide if it's a place you would like to train, with people you like and approachable. involved faculty. Having frank conversations with current fellows was very helpful in understanding the responsibilities fellows have in day-to-day. Most of my the experiences were very collegial back in trying and laid to determine the best fit for both parties.

Ultimately, the application and interview process for "combined" fellowships is complex and challenging for dual applicants, but incredibly rewarding to have comprehensive and specialized training as an anesthesiology consultant. There is no doubt that you will receive excellent training at nearly any institution, and the correct fit exists for most.

Anesthesia Insights: Advice for Residents

"These Violent Delights Have Violent Ends": Wellness During Medical Training

Mitchell Gist, MD

Wake Forest University Medical Center, CA-3, PGY-4

For those familiar with the hit HBO series Westworld, you can clearly understand the turmoil that arises from questions surrounding one's humanity and autonomy. (For those who have not seen the show, have I got a wellness intervention for you.) On *Westworld*, there are generally two types of characters: android "hosts," robots created by humans depressive symptoms ranging from each dollar spent on wellness in a to populate a fictional world, and humans, the people who have created and subsequently abused these technologically advanced humanoids. The broad premise of the show revolves around the hosts' development of autonomous independent and consciousness. This exposes questions about what it truly means to be human, the importance of consequence to our autonomy, and ultimately the progression from dependence to independence -- and residents/fellows the burdens that come with both.

Leaving the nerdy science fiction behind, the metaphor also holds In addition to these human costs, true for how wellness and burnout there are also financial costs at an sleep deprivation, long work hours analysis to demonstrate how occasionally without any food or improvements in fluid intake, the bladder capacity of wellness reduce physician an organism 3-4 times our stature, turnover, increase provider and witnessing sickness test both our physical and emotional in more satisfied patients. In their human capacities. Current literature analysis from the September 2017 estimates burnout amongst residents/fellows in the 50- Tait Shanafelt and others proposed 60% range with the prevalence of a return on investment of 12.5% for



20%-40%. Prior work in wellness hypothetical case study. literature has established links between higher burnout scores and circulating increased cardiovascular disease, shorter life that we practice within do put expectancy, and outcomes ranging from substance NEJM Catalyst piece from January abuse to suicide. These same surveys show a greater prevalence Brigham and Women's in Boston, of burnout and an syndrome acceleration of this amongst younger physicians.

play a part in residency training. We institutional level. Late last year, an are often tasked with things most of evidenced-based business case for of control; disconnect between the world would consider inhumane: wellness nvestments used financial individual values and that of the organizational and productivity, improve quality and suffering on a daily basis. These safety of care, and ultimately result prevalence edition of JAMA Internal Medicine.

Wellness and burnout are not topics owned by residents and fellows. But cortisol, the work structure and demands psychiatric residents at increased risk. In a 2018, Rich Joseph, MD, MBA, a current internal medicine resident at symptoms amongst encouraged readers to look at medical training itself as a priming factor in careers at risk for burnout:

> "As I navigate through training, it has become glaringly evident to me that the way we train primes us for burnout. The literature cites six key ingredients of burnout: high job demands in conjunction with a lack organization or system; insufficient rewards such that one feels taken for granted, undervalued, and/or undercompensated; work overload; and breakdown unfairness: of community. Medical training provides the perfect recipe."

Anesthesia Insights: Advice for Residents Continued from Page 8

Foundations matter. The cornerstones of professional identity are in part built during our ends if we actively reshape how training years. We return to these the process begins. cornerstones as points of influence and reference along our post Though the soil of medical training that influence end outcomes. On residency paths. Throughout her quest for independence and consciousness, the main heroine from the *Westworld* universe. Delores, turns to Shakespeare to Wellness ultimately involves taking next group filling our shoes. Keep describe her struggle for humanity in an environment built for the opposite: "These violent delights

choice in how our wellness story

sow something to agency for our consciousness. We must remain work.

have violent ends." We have a engaged and involved in the process alter the individual to factors departmental, at the organizational, and system levels is primed for burnout, I encourage our journey towards autonomy and each individual reading this article independence, we can alter the different, recipe of medical training for the collective growing, keep learning. See you at

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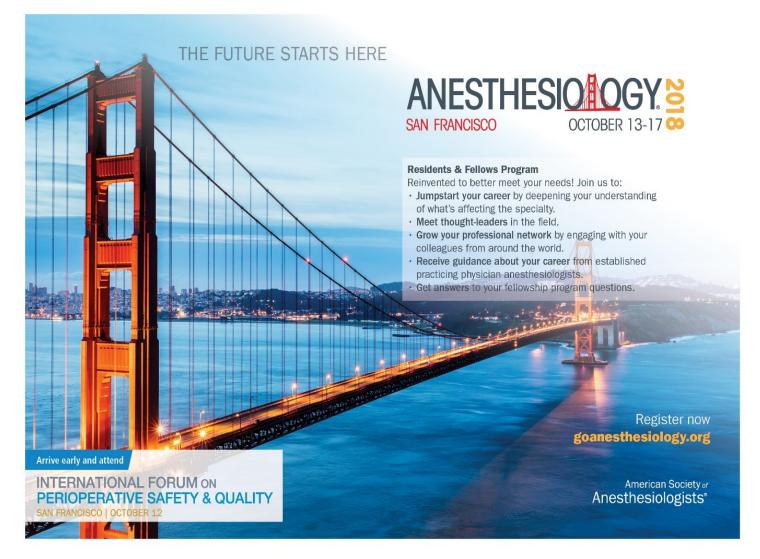
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Call for Applications for ASA Resident **Component Governing Council** Apply by September 1

Visit the ASA Resident Component webpage for more details.



ANESTHESIOLOGY 2018



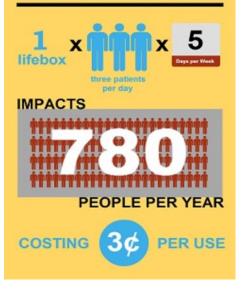
Meet us in "the City by the Bay" for ANESTHESIOLOGY 2018! Attendance at the conference will allow residents and fellows to deepen their knowledge and understanding into the complexities of anesthesia as a specialty. This experience will provide educational and networking opportunities unparalleled to any other conference this year.

New this year! Over 50 educational sessions that would be most beneficial for residents to attend" For mor e information please visit: : <u>http://www.asahq.org/</u><u>annualmeeting/education/residents</u>

We hope to see you there!

Anesthesia Announcements: Updates and Opportunities

BY THE NUMBERS



National Lifebox Challenge

The ASA Resident Component calls on all resident members to participate in the Annual National Lifebox Challenge. This nationwide competition is underway at this time and lasts until September 1, 2018. Our goal is to accelerate the Lifebox mission of making surgery and anesthesia safer worldwide, with a focus in Latin America this year. Residency programs producing the largest contributions will be recognized at ANESTHESIOLOGY 2018 in San Francisco.

Goal: Raise a minimum of \$250 per residency program (= 1 Lifebox pulse ox pack including oximeter and Multilanguage materials for training)

This goal would allow us to raise \$38,000 = 100 pulse oximeters

Deadline: September 1, 2018

Donation info:

Donations are made through the ASA Charitable Foundation http://www.asacharity.org/resident_lifebox_challenge Funds can be raised by single donations or specialized events (bake sale,

Anesthesia Patient Safety Foundation (APSF): Trainee Quality Improvement Recognition Award

APSF Committee The on Education and Training announces the third annual and expanded APSF Trainee Quality Improvement Program. The 2018 program hosts tracts for resident physician anesthesiologists, student registered nurse anesthetists and anesthesiologist assistant graduate students. APSF invites all US and Canadian anesthesia professionals in training to demonstrate their program's work in patient safety and QI initiatives. The top two projects in each tract will receive APSF recognition and financial rewards. The submission deadline is August 31, 2018.



Anesthesia History Association Essay Contest

"As professionals, every anesthesiologist has an obligation to understand the history of the progress of anesthesia practice and technology."

On behalf of Drs. Roy and de Armendi, we would like to announce the 2019 Ronald Stephen, MD Anesthesia History Essay Contest available to anesthesiology residents and fellows. Dr. Stephen was not only a clinician, researcher, and mentor but also a leader in the effort to preserve and teach the history of anesthesia.

Entries for the contest can be related to the history of anesthesiology, pain medicine, or critical care. Winning essays must be submitted to the Journal of Anesthesia History (JAH) and will be considered for, but not guaranteed publication. The winner will have the opportunity to present their essay at the Spring Meeting of the AHA in Richmond, Virginia at the Hilton Downtown on April 25-25, 2019. Authors of submitted essays that do not win are also encouraged to submit their entries to JAH. Formatting and submission info can be found at the AHA website,

Deadline: November 30th, 2019 at 12pm (EDT) Limit: less than 2500 words Prize: \$1000