AUA and IARS: Aligned and Independent

Why is AUA pursuing alignment?
The motivations for alignment are based on both practical and principled considerations. With various changes that have taken place over the last few years, it has become more challenging for AUA to achieve its mission with its current structure and approach. AUA is seeking to grow internationally and to fill a perceived vacuum in academic anesthesiology; alignment with an established international anesthesiology society is appealing. The consideration of alignment was accelerated by the decision of the American Society of Anesthesiologists (ASA) to discontinue administrative support to AUA.

Why is the AUA aligning itself with IARS?
As stated, alignment may occur between organizations with the same or similar missions when such an alliance can result in mutual benefit for both organizations and their members. The IARS is a non-political organization that was founded in 1922. The IARS’ mission is to encourage, stimulate, and fund ongoing anesthesia-related research projects that will enhance and advance the specialty, and to disseminate current, state-of-the-art, basic and clinical research data in all areas of clinical anesthesia, including perioperative medicine, critical care and pain management. In pursuit of this mission, IARS contributes more than $1 million annually to fund anesthesia research and provides a forum for leaders in anesthesia research to share information and ideas. IARS also publishes the Anesthesia & Analgesia journal and sponsors the SmartTots initiative in partnership with the FDA. Membership of the IARS includes physicians and others engaged in anesthesia-related practice, research and training worldwide. The mission and approach of IARS is entirely consistent with and complementary to that of AUA. The mission of AUA is the advancement of the art and science of anesthesiology by: 1) the encouragement of its members to pursue original investigations in the clinic and in the laboratory; 2) the development of the method of teaching (anesthesia) and 3) free and informal interchange of ideas.

What is alignment?
Alignment is a congregation of like-minded groups with a similar mission focus that come together to advance their mutual mission-related interests.

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AUA and IARS: Aligned and Independent

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Is there an existing successful alignment model?
The Federation of American Societies for Experimental Biology (FASEB) provides inspiration for a successful alignment in the scientific community. Founded in 1912, the FASEB was originally created by three independent scientific organizations to provide a forum in which to hold educational meetings, develop publications and disseminate biological research results. What started as a small group of dedicated scientists has grown to be the nation’s largest coalition of biomedical researchers, representing 26 scientific societies and more than 100,000 researchers from around the world. FASEB is now recognized as the policy voice of biological and biomedical researchers. Importantly, FASEB is a coalition of organizations with a common mission, joint administration and shared meetings, but with each component organization maintaining its independence. The Federation also publishes an influential scientific journal, The FASEB Journal.

How will the alignment between AUA and IARS manifest?
Alignment between the AUA and IARS will likely include scientific research, education and the general advancement of academic anesthesiology. Alignment will probably manifest practically through common bureaucratic structures, at annual meetings, through joint educational activities and through shared administration of grants.

Were there constitutional barriers to alignment?
Based on the AUA's constitution and mission, there were no barriers to an alignment between the organizations. Similarly, this alignment required approval by the IARS Board of Trustees, but no change in structure or bylaws.

What are the benefits to AUA?
The most obvious immediate benefit to AUA will be evident at the annual meeting. Currently, 400 AUA members are also members of IARS. These members will, in the future, more easily attend both annual meetings. Unlike in previous years, there will likely be alignment of scientific and clinical content of the meetings. Importantly, about 30 percent of the attendees at the IARS annual meeting are trainees, many of whom comprise the future leaders of academic anesthesiology. It will be advantageous to AUA if many of these trainees are guest delegates and presenters at AUA meetings. Through sharing administrations and using a common venue, the costs for the meetings will be reduced for both organizations and potentially for individual attendees. Each society will have the ability to hold its own separate functions while collaborating on program content. Importantly, based on preliminary discussions with IARS leaders, it is likely that alignment will reduce meeting and membership costs for AUA. Other benefits to AUA should include: 1) increased international appeal, 2) becoming the premier international academic anesthesiology grouping, 3) increased ability to influence the research agenda, 4) access and appeal to trainees and 5) increased relevance and authority.

What risks to AUA were considered in relation to alignment?
Both at the Council meeting and at the business meeting of the AUA in Miami, there were discussions about the potential benefits and risks of alignment. In general, the sentiments expressed were strongly favorable toward the alignment, although some reservations were raised. The major concern was about the change to the flavor of the AUA meeting with the loss of the university-based identity and possibly of the host program. This could pose a major challenge to AUA, and careful thought and planning will have to go into how to maintain the character, intimacy and academic camaraderie of AUA. With the move away from a purely university-based meeting, it will be important not to dilute the eclectic academic content of the AUA program and to continue to involve scientists beyond the anesthesiology community.

Another important consideration is that with a shift away from a university-based program, there could be increased financial risk with the annual meeting, as currently losses incurred are covered by sponsoring university departments. The IARS is a much larger organization than the AUA, and concerns were expressed about loss of independence and loss of relevance. However, there is no interest from either organization to form a merger, and most delegates felt that the alignment model, similar to FASEB, will allow each component organization to maintain its identity and independence. Finally, there was some discussion about the risks of loss of relevance and loss of exclusivity. It was clarified that AUA will remain independent, and the decision to maintain its honorific membership structure will reside fully with AUA. Furthermore, through the extensive contacts provided by IARS, it is probable that AUA will increase its influence and relevance internationally rather than see them diminish.

What will alignment specifically imply for the AUA Annual Meeting?
The meetings of the two aligned but independent organizations will be held at the same time and at the same venue. AUA will continue to have a one- or two-day meeting preceding (or following) the IARS meeting. Key sessions that are emblematic of the AUA meeting, like the oral scientific presentations, will be protected. AUA could sponsor or support a special track, panels or workshops within the IARS meeting. AUA could help plan the IARS meeting and ensure that the content of the two meetings is complementary (and vice versa). The AUA could also hold some AUA meetings or events during the IARS meeting.

Are there likely general benefits to anesthesiology?
Alignment between the organizations should provide benefit to our field, with a strengthening of each component organization. With an overlapping annual meeting with some common streams, both meetings should become larger and stronger. AUA and IARS could position themselves as the societies that represent the interests of academic anesthesiology internationally; currently, no other organization fulfills this role. The alignment should help to promote the future vibrancy and viability of academic anesthesiology as a scientific medical specialty.
The President’s panel at the 2013 AUA Annual Meeting consisted of a series of presentations on the various foundations that fund academic activities in anesthesiology. The presenters and their foundations, respectively, were, Denham Ward, M.D., Foundation for Anesthesia Education and Research (FAER); Alex S. Evers, M.D., International Anesthesia Research Foundation (IARS); Joyce Wahr, M.D., Society for Cardiac Anesthesiology Foundation (SCAF); and Steven Howard, M.D., Anesthesia Patient Safety Foundation (APSF). The slides presented can be found on the AUA website. A brief summary of each foundation’s research support activities follows.

FAER

FAER grants, designed to provide anesthesiologists with the funding, training and mentorship they need to become successful independent investigators, are offered in several categories: Mentored Research Training Grants (MRTGs), Research in Education Grants (REGs) and Research Fellowship Grants (RFGs).

MRTGs are designed to help young investigators, within 10 years of residency completion, to develop the skills and preliminary data to foster future success with the NIH or other larger competitive grants. These grants provide $175,000 over two years and require 75 percent non-clinical time. The applicant’s department must guarantee protected time for research, and adequate mentorship must be a manifest part of the application. MRTGs are further subcategorized as basic science, clinical and translational, and, as a pilot grant in 2013, health care services (jointly supported by the ASA’s Anesthesia Quality Institute).

REGs are designed to support creation of new knowledge in education and advance the careers of anesthesia educators. REGs are two-year grants for $100,000 available to faculty of any rank. Protected time (40 percent) is required from the applicant’s department.

RFGs are for residents and fellows beyond their CA-1 year who want to take 12 months of their clinical training and devote it to a research project and research training. The grant is for $75,000 over one year, and awardees are to have allotted 80 percent time with no call responsibilities.

In 2013, FAER received 53 applications from 33 institutions. The overall funding rate was 32 percent of applications, entailing disbursement of $2.4 million. This is an increase from the $1.875 million in funding in 2012. FAER grants are reviewed and scored by external study sections (ASA Committee on Research, FAER Education Study Section and the MRTG-HSR Study Section). The FAER Board of Directors makes funding decisions based on the scores from the study sections.

Common issues in grants that were not funded were reviewed. These include lack of a clear hypothesis, poorly written specific aims, and no preliminary or prior data to support the aims of the proposal. Moreover, there were noted to be issues with including sections on anticipated results, potential problems and alternate approaches.

It was often apparent that the mentor had little input in the writing of a proposal, thus garnering a big demerit in the review process. Some grants had good ideas but were too ambitious.

Common themes in this year’s grants were in areas of pulmonary, pain, brain mapping and pharmacology, cardiac, anesthetic toxicity, outcomes, handoffs and interdisciplinary learning.

IARS

The IARS research process is meant to be decidedly apolitical, with its sole focus to support the science of anesthesiology and provide evidence of safe anesthesia care techniques. The IARS was founded in 1922 and now contributes more that $1 million annually to research support. The IARS supports Anesthesia & Analgesia and puts on a major annual meeting with much research presented and discussed. IARS sponsors the SmartTots initiative. Since 1983, IARS has funded more than 130 grants. Grants supported by IARS are the Frontiers in Anesthesia Research Award (FARA), the IARS Mentored Research Award (IMRA) and the SmartTots research grants. In addition, the IARS provides a Teaching Recognition Award (TRA) for innovation in education.

The FARA awards are perhaps the most attractive grant to investigators and are intended to provide meaningful support to foster innovation and creativity relevant to the future of anesthesiology. They are $750,000 grants awarded over three years, with one awardee annually.

The IMRA, formerly called the Clinical Scholar Research Award, is awarded annually up to four recipients providing up to $150,000 over two years. It is designed to further the understanding of clinical and basic issues in anesthesiology. It is intended to provide support that will lead to competitiveness for an NIH K award and requires a mentor.

The TRA award annually recognizes an individual who is doing innovative work in support of the educational mission of academic departments. This is not a grant, per se, but includes $15,000 to further support the awardee’s efforts along with a $1,000 personal prize.

The IARS grants administration is set up essentially like the NIH. Grants are reviewed by one of two external advisory boards (study sections) who then provide recommendations for priorities for funding to the IARS board of trustees (council).

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Patients coming for cardiac surgery are ever-older and frailer, with increasingly complex co-morbidities, and therefore the mission and role of the Society of Cardiovascular Anesthesiologists in education and research is also increasing. SCA has been highly productive in advancing the field of cardiac anesthesiology. Accomplishments include developing processes for certification in echocardiography and ACGME accreditation of fellowships. SCA is now working on developing a certification process through the ABA. The research grants supported by the SCAF include the starter grant, in-training grant, mid-career grant, Roizen New Investigator Grant, and Kaplan Leadership Grant. Over the past six years, the SCA and the SCA Foundation together, with support from the IARS and the Roizen Anesthesia Research Foundation, have provided $1.284 million in research grants, with $980,000 in SCA/IARS research grants, and $300,000 in Roizen New Investigator grants. Their research grants require matching funds from the institution, evidence of a mentoring plan, and a guarantee of at least 40 percent protected time. Since 2008, SCAF has awarded $1,284,000 in grants.

- The SCA-IARS starter grant provides awardees at a rank of assistant professor or less $50,000 over two years. It is awarded annually to up to two recipients.
- The SCA-IARS midcareer grant, oriented to associate professors or lesser rank provide $100,000 over two years and is awarded to one recipient annually.
- The Roizen New Investigator Grant is awarded every other year to applicants at the rank of assistant professor or less, providing $50,000 over two years.
- The Kaplan Leadership Grant provides $2,000 to support leadership training.

APSF’s vision is that no patient shall be harmed by anesthesia. It is notable that APSF in its origin was a visionary initiative, being the first organization with a goal to improve patient safety, achieving recognition in the IOM report To Err Is Human. It is now being emulated by other specialties, and patient safety is now significantly emphasized at national meetings. APSF was established in 1985, with the first grants awarded in 1987. Since then, APSF had awarded 98 grants for $7,670,000.

APSF grants are reviewed by a scientific evaluation committee with members who are diverse in terms of geography and specialty expertise. There are no term limits.

APSF grants are awarded on an annual basis and are investigator-initiated with support provided for two years for up to $150,000. Overall, up to $750,000 is awarded per funding cycle. APSF nonetheless does establish research priorities to support research in education and clinical safety, which contribute to prioritization of submissions. For example, the current RFA is for grants dealing with preanesthesia induction patient safety checklists. The paylines have been relatively low, and the APSF will soon transition to a letter of intent system by which applicants will propose the idea in a brief letter of intent and then a smaller number will then be invited to submit full proposals. This should make the process more efficient for both applicants and reviewers.

APSF has a newly announced safety scientist career development award, which is a training grant designed to develop the “next generation” of safety scientists. It will provide $150,000 over two years. The slides from these presentations have been placed on the AUA website in the “Foundations” page. More details on these grants can be found on these slides and by review of each organization’s website.

Save the Date

AUA 61st Annual Meeting
April 24-26, 2014
Stanford University School of Medicine
Stanford, California
Marek Brzezinski, M.D., Ph.D.
University of California-San Francisco

Jerry Cohen, M.D., ASA's Immediate Past President, delivered the President's Update at the 2013 AUA Annual Meeting in Miami. This presidential address focused on three areas: health care finance reform, future models of anesthesia practice and scope of practice.

Dr. Cohen started by pointing out that the continuously increasing taxes and Medicare costs in the context of ongoing shortfall of revenues have created a challenging environment for our specialty. Making things worse, he continued, the Affordable Care Act (ACA) establishes requirements to reduce costs and offers incentives, such as Accountable Care Organizations (ACOs), that “...do not mesh well with what anesthesiologists do,” so a further decrease in revenue is a real possibility. Issues such as the unaccountable and unelected Independent Payment Advisory Board (IPAB) that mandates unrealistic Medicare spending targets, incentives for health information technology, and the inadequate tort reform will continue to be problematic for anesthesiologists. In Dr. Cohen’s view, the ACA with shared savings models will ultimately change the current system of paying for each service rendered using the Resource-Based Relative Value (RBRV). He predicted that a bundled payment for episodes of care is likely to replace the current system in the near future, and we need to be prepared for this change. Dr. Cohen highlighted the efforts by ASA not only to repeal the Medicare payment formula and IPAB, but also to work to improve tort reform and continue the fight against parts of the ACA. While the Supreme Court said the individual mandate was not constitutional, it did say the ACA was a tax and as such was constitutional; however, Dr. Cohen opined that it is a tax that will not actually lead to the intended health care improvements.

Dr. Cohen further championed the idea that we need to take a more active role in the future of our practice. He proposed that we coordinate care beyond the operating room not only to improve outcomes and patient satisfaction but also to decrease cost. He argued that with the increasing acuity and complexity of our patients, and growing fragmentation of surgical specialties, there is a need for a specialist with knowledge of the entire surgical care pathway – and that we, as anesthesiologists, are best-suited and positioned to take on this role. Consequently, he supported the Perioperative Surgical Home model where the anesthesiologist, as an expert consultant, oversees the entire perioperative continuum of care, from pre-surgical visit to perioperative recovery and ultimately discharge. By so expanding and defining the role of anesthesiologists, “…placing them in a key position in revenue generation, safety and efficiency,” the Perioperative Surgical Home model offers the best chance for making a successful transition to the coming practice model while adding critical value to the surgical care pathway that is essential for institutional success.

Lastly, he was very passionate about protecting the scope of our practice. He felt that it was incumbent upon us to shatter the myth that anesthesiologists can be replaced by midlevel providers. The ASA’s long-standing stance on this issue has been that “…only anesthesiologists have the training to improve surgical outcome by better preparing patients for surgery and procedures...” Therefore, “blurring the boundaries between physicians and nurses is counterproductive.” Consequently, he believes that defining, maintaining, and protecting the boundaries of our scope of anesthesia practice is critical. The inability of conveying this message to the public and lawmakers could, in his view, seriously endanger the survival of our specialty and harm our patients.

Dr. Cohen concluded his address by reemphasizing the need for continued efforts by ASA to improve safety and quality of care, developing future models of practice and support legislation that meets the needs of our patients.

Overall, it was a well structured, well attended and passionate presentation with a message consistent with ASA’s mission of “Advancing the practice and securing the future.”

In the end, whether we are at the table or on the menu, is up to us. The only way to ensure success for our specialty is to provide strong support to ASA and to assist the society in these efforts in the rapidly changing health care environment.
The Scientific Advisory Board (SAB) program opened the 60th AUA Annual Meeting in Miami with the first of two oral sessions that included innovative studies presented by researchers ranging from anesthesiology residents to senior academicians. The opening session was followed by a well-attended moderated poster discussion session where enthusiastic scientific exchange occurred thanks to the moderation of members of the SAB and active participation of the AUA membership. This format was repeated for the second session of the SAB program on Saturday, again well-attended and engaging as the final sessions to close out the AUA meeting. Several awards were presented during these sessions: two resident travel awards (Michael R. Chalifoux, University of Pennsylvania, and Jennifer Danielsson, Columbia University), two junior faculty awards (George Gallos, Columbia, and Norman E. Taylor, MGH/Harvard) and two best poster awards (Astrid G. Stucke, Medical College of Wisconsin, Milwaukee, and N. Nick Knezevic, Advocate Illinois Masonic Medical Center, Chicago).

The SAB organized two other events during the meeting: a plenary lecture delivered by Beverley A. Orser, M.D., Ph.D., from the University of Toronto (summarized on page 6 of this newsletter), and an anesthesiology foundation funding information session, during which representatives from FAER, IARS, SCA and APSF presented a summary of funding options for the anesthesiology community. The presentations from this session have been placed on the AUA website, creating a centralized source of information on such funding in anesthesiology.

The most rewarding component of the SAB program this year was the active engagement of the conference attendees and presenters in the research topics presented. Under moderation of members of the SAB committee, insightful questions followed every oral presentation. Every poster was included in a vigorous exchange during moderated poster sessions grouped into five thematic areas. The SAB is already busy planning for rewarding scientific sessions at next year’s AUA annual meeting hosted by the Department of Anesthesia of the Stanford School of Medicine.
Collectively, the results demonstrate the importance of these receptors in anesthetic-induced memory loss. As well, pharmacologically inhibiting this receptor with drugs such as L-655,708 can reverse etomidate-induced memory blockade in wild-type mice.

Additional studies addressed the clinical problem observed in some patients: that memory deficits can persist even after the anesthetic has been eliminated. Her laboratory is working toward understanding this phenomenon more clearly. Her results show that she can prevent long-term memory loss by pharmacologically or genetically inhibiting the activity of the a5GABAA receptor.

A third part of her research aims to gain an understanding of how inflammatory processes cause long-term memory loss. Inflammation activates many endogenous factors. In particular, a research associate on her team, Dr. Dianshi Wang, discovered that the pro-inflammatory cytokine, interleukin 1 beta (IL-1B), increases the number of 5-GABAA receptors expressed on the surface of neurons. This increase in receptor number renders neurons highly vulnerable to modulation by anesthetics such as isoflurane and etomidate. Her studies also addressed the question of whether pre- or post-treatment with L-655,708 protects memory by preventing cognitive injury associated with inflammation and anesthesia by inhibiting the activation of a5GABAA receptors.

These evolving pathways are leading to a better understanding underlying both desirable and undesirable memory loss caused by anesthetics. In a broader context, her pioneering studies of extrasynaptic inhibitory receptors have shown associated roles, not only in memory processes, but also neurotoxicity caused by other drugs, pathophysiological processes in the lung and in pain mechanisms. Dr. Orser hopes to translate results from her pre-clinical work into clinical practice in the near future.

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**EAB 2013 Meeting Report**

David Murray, M.D.  
Chair, Education Advisory Board  
Washington University

The AUA Education Advisory Board (EAB) included two relatively well-travelled topics at this year’s two Friday morning panel sessions in Miami.

The first panel, “Performance Measurement: Does it Matter?” was a pro and con session moderated by Dr. Richard P. Dutton, Executive Director of the Anesthesia Quality Institute (AQI) in Park Ridge, Illinois. Dr. Lee A. Fleisher, Professor of Anesthesiology and Critical Care, Perelman School of Medicine at the University of Pennsylvania, served as the pro panelist. Dr. Avery Tung, Quality Chief for Anesthesia at the Department of Anesthesia and Critical Care at the University of Chicago, provided the con argument for performance measurement.

Dr. T.J. Gan, Professor and Vice Chair for Clinical Research, Duke University, moderated the second panel titled “Faculty Development.” The faculty development panel included three interrelated topics. Dr. Monica Vavilala, from the University of Washington, discussed the “Challenges and Solutions to Mentorship in Anesthesiology.”

Dr. Brenda Bucklin, University of Colorado, provided a perspective on “Faculty Attrition: Is it a Problem?” and Dr. Robert R. Gaiser, University of Pennsylvania, presented a discussion of “Burnout or Whining? You Decide.”

**Performance Measurement: Does it Matter?**

Dr. Dutton, in his role the AQI, was able to place the topic of performance in perspective by providing an overview titled “Performance Measurement: The Good, the Bad and The Ugly.”

The “good” of performance measurement represents the amount of effort that has been placed on collecting data and providing a repository of information. Dr. Dutton indicated that the AQI has, as of the date of his talk in April, collected quality measures representing the anesthetic care of more than 8 million patients. The emphasis on data collection has provided a ready method to assess quality. There are both good and bad points to data collection: the good is that we are collecting and...
collaborating; the bad is that we have not yet developed performance and measurement standards.

Dr. Lee Fleisher, AUA President and Chair of the Department of Anesthesiology and Critical Care at the University of Pennsylvania, provided a pro perspective based on the directives developed through the Affordable Care Act and U.S. Department of Health and Human Services (HHS). Dr. Fleisher is a member of the committee charged to develop a National Strategy for Quality Improvement in Health Care (National Quality Strategy). In his presentation, Dr. Fleisher admitted that measures have drawbacks, but indicated that despite the limitations of various measurements, a number of improvements in care have resulted merely from the attention paid to outcomes and the processes used to develop more effective measures of outcome. Similar to many strategies designed to improve performance, by drawing attention to the outcomes of interest, effective strides in improving performance result. The impact is improved patient outcome. Dr. Fleisher summarized by indicating that the strategy of drawing attention to many of these team-related processes has led to a positive change and process improvements.

Dr. Avery Tung provided the con perspective in a presentation titled “Performance Measurement: The Devil Is in the Details.” Dr. Tung admitted that his position as quality chief makes him “pro” performance measurement, but in a high-paced, rapid-fire presentation, Dr. Tung provided an entertaining and enlightening discussion of the “con” argument, embellishing his remarks with Yankees versus Red Sox attire. He indicated a number of the pitfalls of reporting - the concern that all of these are performance measures and not patient outcome. Dr. Tung provided numerous examples of how many of these processes are being incentivized and that although they may indicate reduced morbidity and mortality, they might not in actuality change patient mortality.

Dr. Tung also provided some examples of “real” world manipulation of data particularly notable when self-reporting is possible. Dr. Tung described the inflation of self-reported income and physical height in personal profiles for online dating services and how there might be parallel concerns about various self-reports in medicine. The dramatic decline in reporting of central-line infection could be the manipulation of data in response to various “pay for performance” and “never” events. Dr. Tung provided some compelling examples of the potential for manipulation of “risk stratification.” Risk stratification may be altered to either increase or decrease risk by various management strategies, leading to either a better or worse “performance” report card for the medical center.

Panel on Faculty Development

T.J. Gan moderated the panel and introduced the topic of mentorship and described a number of successful examples outside of medicine and inside the specialty of anesthesiology, and in particular at Duke University. The first speaker, Monica Vavilala, in a talk titled “Challenges and Solutions to Mentorship,” indicated that one of the chief reasons academic departments have not been successful in developing the next generation of academic anesthesiologists is primarily because of the limited investment in our workforce, whether in trainees or faculty.

One of the solutions Dr. Vavilala described was found in the Faculty Fellowship Program introduced at the University of Washington. Faculty fellows come from numerous anesthesiology residency and fellowship programs across the U.S. Applicants view this innovative training program as a way to invest in their future. This program may be one way of developing depth and breadth for the specialty and, importantly, make contributions to improvements in health care systems and public health across all of medicine.

The second presentation, by Dr. Brenda Bucklin, Professor of Anesthesiology and Assistant Dean at the University of Colorado, discussed “Faculty Attrition: Is It a Problem?” Dr. Bucklin traced the growth in the numbers of faculty and also provided some background on the frequency of faculty leaving academic positions. At present, Dr. Bucklin indicated that five of every 10 clinical faculty members leave medical school appointments within 10 years, and as many as four out of 10 leave academic medicine entirely. Faculty attrition is high in all medical specialties, but among anesthesiology faculty there is more pronounced dissatisfaction, high attrition and low retention.

Dr. Bucklin indicated there are many work-life balance causes for physician dissatisfaction and burnout. The reasons differ somewhat depending on generational differences. Attrition represents a serious loss of human and financial capital that may threaten the research, teaching and clinical service missions of institutions. In concluding, Dr. Bucklin indicated that some attrition is inevitable and likely beneficial. Although attrition is an opportunity for recruitment of new faculty with novel and innovative ideas, the minimum cost of turnover may represent a loss of 5 percent of total annual operating budget at academic medical centers.

The final presentation, “Burnout or Whining?”, by Dr. Robert Gaiser, provided a definition of burnout and outlined the signs and symptoms of this increasingly common faculty complaint, which occurs even among department heads. Dr. Gaiser described the causes of burnout factors such as: 1) excessive workload, 2) time pressure, 3) lack of resources, 4) organizational context and 5) demanding family environment.

Dr. Gaiser provided means for avoiding burnout. These prevention measures involve internal resources as well as medical school and department resources. Coping strategies, positive self-evaluation and intrinsic motivation are important internal resources. External resources include providing faculty more control of work, participation in decision-making and methods to control time management. While it appears burn-out is real, it is preventable. Addressing this situation will address faculty attrition and mentorship.
FAER Supports Academic Anesthesiology Through Grants and Programs

2013 Grant Awards Announced, $2.4 Million in Funding

In 2013, 17 anesthesiologists representing 12 institutions received FAER grants. The award funding totaled $2.4 million, the second-highest amount FAER has ever awarded in a single year. (FAER awarded $2.412 million in 2007, which included $500,000 in funding for the special Cerebral Function Monitoring Grant supported by the American Society of Anesthesiologists.)

Two of the 17 grants were awarded for FAER/AQI Mentored Research Training Grants in Health Services Research, a pilot grant program new in 2013. FAER received nine applications for MRTG-HSR awards and is looking forward to receiving more applications in this important new research area.

The funding rate for this year’s grant applications was consistent with historical averages. Overall, FAER funded 32 percent of applications received. Specifically, we funded 50 percent of the Mentored Research Training Grant-Basic Science applications, 13 percent of the Mentored Research Training Grant-Clinical or Translational applications, and 22 percent of the FAER/AQI Mentored Research Training Grant-Health Services Research applications. In addition, FAER awarded 17 percent of Research in Education Grant applications, and 63 percent, our highest funding rate, of Research Fellowship Grant applications.

To view a list of the 2013 FAER grant awardees, visit FAER.org/news

Review Committee Feedback

Traditionally, FAER’s grants have been reviewed by the ASA Committee on Research (MRTG-BS, MRTG-CT, RFC applications) and the FAER Education Study Section (REG applications). An exciting addition this year was the Health Services Research Study Section, which reviewed applications for the pilot FAER/AQI Mentored Research Training Grant in Health Services Research.

During the review process, the committees put great emphasis not only on the research plan proposed, but also on the mentoring and career development plans for each applicant. This year, many grants were scored lower because of problems with these plans. Because AUA members are frequently asked to mentor residents, fellows and junior faculty who apply for FAER grants, we urge you to pay particular attention to these portions of the grants.

Another common problem was a lack of adequate preliminary data to justify the hypothesis. The review committee understands that these grants do not require the amount of preliminary data that would be needed, for example, for an NIH grant. However, sufficient information must be provided, either the applicant’s or mentor’s own data, or sufficient reference to other published data.

Anesthesiology NIH Funding Analysis

Each spring, the Blue Ridge Mountain Institute provides information regarding NIH grant funding to medical schools. The data can be found on its website (https://www.brimr.org/NIH-Awards/NIH_Awards.htm).

This information should be used carefully because it includes data from medical schools but not hospitals (e.g., the Harvard system is organized by hospital). Although the hospital data is available on the website, it is not broken down by department, and some institutions do not break their grants down by department (e.g., Mayo Clinic). But as a general trend, these data give us some idea about the state of NIH funding to anesthesiology.

It is also instructive to look at the data normalized by the number of faculty (both total and senior). This data is available from the AAMC website, though the academic year reporting and the NIH fiscal year reporting are not aligned.

Again, allowing for these inconsistencies, it is still interesting to compare departments and across time. The NIH grant funding per senior faculty in 2012 ranged from $227,620 for neurology to $39,045 for orthopedics. Anesthesiology was 13th in rank out of the 16 clinical departments at $46,725, ahead of only emergency medicine, family medicine and orthopedics; and essentially tied with physical medicine and rehabilitation.

But by some other measures, anesthesiology is at least holding its own with NIH funding. Comparing 2012 with 2011, there was a 0.9 percent increase in NIH funding to clinical departments overall, but a 4.9 percent increase to anesthesiology departments. The number of senior faculty in anesthesiology increased by 3.8 percent compared to a 5.6 percent increase in all clinical departments. This resulted in a 4.5 percent decrease in funding per senior faculty for all clinical departments, while anesthesiology saw a 1 percent increase in funding per senior faculty in anesthesiology. As I noted above, there are a lot of cavorts to this analysis but it would appear that as a specialty we are making progress with our NIH funding.

Specific to the Health Services Research applications, common themes included assessment of variability in anesthesia practice and effect on outcome along with exploring the potential for a broader perioperative role for anesthesiologists. Common issues with the applications included the lack of a clearly defined hypothesis and specific aims. Importantly for these grants, which often involve accessing large databases, it is important that there is a discussion of the anticipated results, potential problems and alternative approaches.

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FAER and I are indebted to these review committees in providing thoughtful scoring of the grants and useful feedback to the applicants. This year, Armin Shubert, M.D., M.B.A., became chair of the FAER Education Study Section after John Moyers, M.D., stepped down after so many years of service to this committee. The research committee has been ably chaired by Paul Knight, M.D., for many years and he will be stepping down after this year.

To provide expert reviews for the health services research grants, FAER convened an ad hoc committee, chaired by Roger Johns, M.D. Chairing these committees requires a considerable about of work, and I would like to personally thank both John and Paul for their years of dedicated service.

FAER Outcomes Study Begins
FAER continues to provide grant funding that will help lead to a career of independent research, often with NIH funding. We have just partnered with Lee Fleisher, M.D., and Rebecca Speck, Ph.D. at the University of Pennsylvania to study the effect of FAER grant funding on career productivity and satisfaction. By this time next year, we should have some preliminary data to report. FAER will use this data to help guide the development of new grants in the future.

New Medical Student Fellowship Opportunity
At our spring meeting, the FAER Board of Directors approved a new grant for medical students. This grant will fund a research year and will complement our very successful summer research program that we will also expand in 2014. The year-out fellowship will be aimed at students who have completed their third-year clinical rotations and have a passion for research. It will provide them with the opportunity to realize their ambitions doing anesthesiology related research. Details of this new opportunity will be on FAER.org this summer. Because AUA members are some of the best research mentors in the specialty, I urge you to seek out the top students at your institution who are interested in research and encourage them to apply for this grant to spend a year working with you.

FAER Visiting Professor Program
Finally, I want to point out a new opportunity for you to support FAER. Many AUA members are invited to share their expertise as visiting professors. Now through a program championed by Simon Gelman, you can directly donate your honorarium to FAER. Please visit http://faer.org/programs/visiting-professor-program/ to learn more about the program and signup to participate.
Anesthesia Professionals and the Use of Advanced Medical Technologies:
Recommendations for Education, Training, and Documentation

Royal Palms Resort and Spa, Phoenix, AZ

The Anesthesia Patient Safety Foundation (APSF) believes that anesthesia professionals should be competent to use advanced medical technology to provide safe patient care. In this regard, APSF, through its Committee on Technology has developed and the APSF Executive Committee has endorsed recommendations for Advanced Medical Technology Training (AMTT).

The goals of this conference will be to engage all stakeholders (anesthesia professionals, technology manufacturers, accrediting and regulatory agencies, professional technology organizations, insurers, hospital administrators, risk managers) to discuss and refine the existing APSF Advanced Medical Technology Training document.

The attendees will be asked to develop a consensus for “Considerations” that are intended to guide anesthesia professionals, anesthesia technicians, health care organizations and technology manufacturers as they develop educational programs to train and confirm anesthesia professionals’ continued competence to use advanced medical technology.

• Considerations for Anesthesia Professionals
• Considerations for Health Care Institutions
• Considerations for Technology Manufacturers

Contact stoelting@apsf.org for registration information.

Announcements from the Anesthesia Patient Safety Foundation

ANESTHESIA PATIENT SAFETY FOUNDATION (APSF)
2014 GRANT PROGRAM

Announcing Guidelines for Grant Applications to be selected on Saturday, October 12, 2013 (ASA Annual Meeting) and Scheduled for Funding Starting January 1, 2014

Maximum Award is $150,000 for a study conducted over a maximum of 2 years.

THE ANESTHESIA PATIENT SAFETY FOUNDATION (APSF) GRANT PROGRAM supports research directed toward enhancing anesthesia patient safety. Its major objective is to stimulate studies leading to prevention of mortality and morbidity resulting from anesthesia mishaps.

The APSF Scientific Evaluation Committee will designate one of the funded proposals as the recipient of the Ellison C. Pierce, Jr., MD, Merit Award that carries with it an additional unrestricted award of $5,000.

ANTICIPATED 2013-2014 NAMED AWARDS
APSF/American Society of Anesthesiologists (ASA) President’s Endowed Research Award
APSF/American Society of Anesthesiologists (ASA) Endowed Research Award

Submissions due online no later than Sunday, June 16, 2013 (23:59 EDT).

See www.apsf.org for grant guidelines and other information.

The Anesthesia Patient Safety Foundation (APSF) announces a Request for Proposals (RFP) to study the implementation and performance of the APSF Pre-anesthetic Induction Patient Safety Checklist (PIPS)

The deadline for receipt of a proposal is November 1, 2013 for a grant scheduled for funding to begin no later than July 1, 2014.

• APSF intends to provide up to $200,000 for a period not to exceed 2 years.

• The proposed study should be a prospective observational clinical trial utilizing the APSF PIPS checklist with a matched and/or parallel control group not cared for with the utilization of the checklist.

• The proposals will be evaluated by a scientific review committee selected by APSF.

• Proposals will be assessed for merit based primarily on their likelihood of meeting the objectives outlined in the RPF as well as the proposed study’s scientific rigor, innovation, and cost-effectiveness.

• The principal investigator must be an experienced scientist from a North American institution.

• A grant mechanism will be used and funds will be awarded to a single institution.

• Funding will be contingent upon acceptable modifications to the proposal based on feedback from the APSF review committee as well as appropriate IRB and institutional approvals.

Please contact Stoelting@apsf.org to request grant guidelines and an application.

Request for Applications (RFA) for the SAFETY SCIENTIST CAREER DEVELOPMENT AWARD (SSCDA)

Application deadline: November 1, 2013

APSF is soliciting applications for training grants to develop the next generation of patient safety scientists.

APSF will fund one ($150,000 over 2 years) Safety Scientist Career Development Award to the sponsoring institution of a highly promising new safety scientist. The award will be scheduled for funding to begin July 1, 2014.

Please contact Stoelting@apsf.org to request the SSCDA GRANT GUIDELINES AND APPLICATION.
Papper Exhibit at 60th AUA Meeting in Miami

The host department, University of Miami, where Dr. Papper was dean and on faculty for many years, put together a Papper Exhibit. Photos from the exhibit are depicted below.
Aafter suffering from a long illness, Martin (“Marty”) Helrich, M.D passed away on June 2, 2013 at the age of 91 in his home, with his wife Ina by his side. The University of Maryland School of Medicine and the specialty of anesthesiology have lost a friend, mentor, teacher, leader and champion of academic anesthesiology.

Born in New York, Marty grew up in Atlantic City before graduating Phi Beta Kappa from Dickinson College and then the University of Pennsylvania School of Medicine. After completing his internship at Atlantic City Hospital, Dr. Helrich began his career in anesthesiology as a resident at New York University and the Bellevue Medical Center. Under the tutelage of pioneers E.A. Rovenstine and E.M. Papper, Dr. Helrich received outstanding training in clinical care, research and teaching. Following his residency, Dr. Helrich served for two years in the U.S. Army as Chief of Anesthesiology at Ft. Polk, La. Upon honorable discharge as a captain, Dr. Helrich moved his family to Philadelphia, where he served as a research fellow sponsored by the National Heart Institute and later joined the faculty at the University of Pennsylvania.

In 1956, anesthesiology was formally recognized as an independent department in the University of Maryland. Dr. Helrich was recruited to Baltimore and named professor and chair of the nascent department. Marty Helrich displayed the professional and personal qualities that he imbued in all those he touched – “integrity, patience and wisdom.” In 1986, Dr. Helrich was appointed Professor Emeritus of Anesthesiology upon his retirement, after serving for 30 years as Chair of the Department of Anesthesiology at the University of Maryland School of Medicine.

Today, the residents would call him “old school,” said Andy Malinow, M.D., Professor of Anesthesiology and Vice-Chair of the department at Maryland. “I finished my residency late in Dr. Helrich’s tenure and was later recruited by him, coming back to Maryland as a faculty member. Dr. Helrich was kind but demanding of his residents. He would question his residents’ knowledge of clinical anesthesiology as well as all related aspects of general clinical medicine and the basic sciences. Marty took the time to learn about his residents and was there for any of us who had a problem, either at the hospital or at home. He was a father figure to many of us.”

To his faculty physicians, Dr. Helrich emphasized the importance of delivering clinical care while teaching resident and students and engaging in state-of-the-art experimental investigation. He published more than 85 peer-reviewed manuscripts while strengthening and positioning the department for future growth. His research investigations resulted in productive lines of active inquiry even to this time. He recruited investigators and supported clinical and basic research. In an effort headlined by his successor, the late M. Jane Matjasko M.D., a professorship in his name was established supporting the chair of anesthesiology in the school of medicine.

Peter Rock M.D, M.B.A. is the current Helrich Professor and Chair. “I hadn’t met Marty before I came to Maryland, although of course I knew who he was and his importance to the specialty of anesthesiology. I got to know him over the years and appreciated his wisdom, wit, and phenomenal memory of people and events. He was still loyal to the University of Maryland School of Medicine and very proud of the department he had created. The department’s remarkable growth in the 30 years since Dr. Helrich retired has only been possible because of the foundation he built. I am humbled to serve as the chair of the department he founded and consider myself exceptionally fortunate to follow in his footsteps. It is an honor and privilege to be the Dr. Martin Helrich Professor of Anesthesiology. The department, the school and our specialty have lost a giant in the field.”

During his career, Dr. Helrich served as a Director, Secretary and President of the American Board of Anesthesiology, a Director of the American Society of Anesthesiologists, a Governor of the American College of Anesthesiologists and President of the Maryland-D.C. Society of Anesthesiologists. In his retirement, Dr. Helrich stayed active on the national scene. He was very proud to be named the first Executive Director of the Foundation for Anesthesia Education and Research. In 1995, Dr. Helrich was honored by the American Society of Anesthesiologists, which bestowed upon him its Distinguished Service Award.

Dr. Helrich is survived by his wife Ina, his daughters Lisa (Washington, D.C.) and Karen (San Diego), and two granddaughters. A funeral service was held on Wednesday, June 5 in Baltimore.
Cardiovascular surgery and cardiovascular anesthesiology were in their infancy in 1970. Although rare and isolated surgeries had been performed on the heart from the late 1800s, cardiac surgery really began in the 1950s. In 1967, Earl Wynands, a Canadian anesthesiologist, published a seminal article titled “Coronary Artery Disease and Anesthesia.” By the 1970s, many anesthesiologists embraced the challenge of providing anesthesia for cardiac surgeries and were eager for a chance to meet and share their experiences. In 1979, three anesthesiologists specializing in cardiac anesthesiology, Bob Marino, George Burgess and Don Harmon, met and formed the Society of Cardiovascular Anesthesiologists. (SCA) The first annual meeting was held in New Orleans in 1979, and the SCA was formally incorporated in 1982 with the purpose to “hold frequent meetings for the exchange of scientific information and other matters of professional, technical, and ethical interest to practitioners of cardiovascular anesthesiology and to enhance and improve the quality of cardiovascular anesthesiology care rendered.”

The membership of SCA grew rapidly from a few hundred in 1985 to 4,000 by 1995, and to 7,000 by 2010. SCA’s mission has never wavered and continues to be to “promote excellence in patient care through education and research in perioperative care for patients undergoing cardiovascular and thoracic procedures.” Early meetings were devoted to discussing the best anesthetic for cardiac surgery (deep narcotic versus inhaled anesthesia), the rare but dangerous complications of CPB (acute pulmonary hypertension associated with protamine administration), and the nuances of acid/base management during hypothermic CPB (alpha stat versus pH stat).

In the mid-1980s, the advent of transesophageal echocardiography (TEE) revolutionized the cardiac anesthesiology, allowing cardiac anesthesiologists to advise the cardiac surgeon on the pathophysiology of the cardiac valves (pre- and post-repair/replacement), of possible myocardial ischemia, the state of the aorta, and so on. The specialized skill set required for TEE performance and interpretation led SCA to develop specialized education in perioperative TEE and, subsequently, an examination specific for perioperative TEE. The first comprehensive review and update on perioperative echocardiography was offered in 1998, and at the end of that week, the first certifying examination in TEE was administered. The TEE review course continues to be very popular, but also very difficult, with a full week of 10-12 hour days just for the review! However, the importance of this education also continues to grow, with the advent of hybrid operating rooms where aortic and mitral replacements and repairs can be done percutaneously. In 2009, SCA partnered with ASA to offer education in basic TEE for non-cardiac anesthesiologists, allowing all anesthesiologists to acquire this key skill set.

In 1984, SCA outlined a specialized year in cardiac anesthesiology and began the journey to fellowship accreditation in 1987. In 2004, the Anesthesiology Residency Review Committee endorsed accreditation of the adult cardiothoracic anesthesiology fellowships, and approval of adult cardiothoracic anesthesiology fellowships by the Accreditation Council for Graduate Medical Education followed in 2008. A formal application to the American Board of Anesthesiology for a separate subspecialty certification in Adult Cardiothoracic Anesthesiology was made in 2011, and that process continues today.

SCA has always been based on the principle of inclusivity, welcoming all who are interested in cardiac anesthesiology. The society has also had a view that sharing information and knowledge between the specialties in cardiac O.R.s is key to good patient outcomes - and so, in 1996, launched the annual meeting on cardiopulmonary bypass, inviting perfusionists, CVOR nurses and surgeons to participate. This effort was expanded in 2007 when SCA launched the multidisciplinary FOCUS Patient Safety Initiative, aimed at understanding and managing human error in the CVOR. The FOCUS Steering Committee consists of cardiac anesthesiologists, CVOR nurses, perfusionists, surgeons, and human factors engineers, and is endorsed by AORN, the SCA and AmSECT.

Finally, the spirit of inclusiveness extends to our international colleagues in cardiac anesthesiology. The first internationally co-sponsored cardiac anesthesiology meeting was held in Munich, Germany, and international meetings have been held every other year since that date. These international meetings allow our international colleagues who may not be able to attend a U.S. meeting, to participate and share knowledge. Meetings have been held recently in Prague, Berlin, Beijing, Auckland and, in 2014, will take place in Florence, Italy, to name a few.

Patients coming for cardiac surgery are ever older and frailer, with increasingly complex co-morbidities, and therefore the mission and role of the Society of Cardiovascular Anesthesiologists in education and research is also increasing. Over the past six years, the SCA and the SCA Foundation, together with support from the IARS and the Roizen Anesthesia Research Foundation, have provided $1.284 million in research grants, with $980,000 in SCA/IARS research grants, and $300,000 in Roizen New Investigator grants. Each year, three starter grants, worth $50,000 over two years, and one mid-career grant ($100,000 over two years) are awarded, with a new investigator grant ($100,000 over two years) awarded every other year. In addition to the research grants, SCA also awards two leadership grants of $2,000 each every year to provide for leadership training.

SCA continues to support its members through significant education in cardiac anesthesiology, including transesophageal echocardiography, through research grants and through leadership training opportunities. For additional information, visit the SCA website at www.scahq.org or the SCA Foundation website at www.scahqgive.org.
Epigenetics in Anesthesia:
The newly mutated gene for a new texting circuit in the brain has been found. It arose based on enormous environmental pressure. However, this circuit appears to be refractory to effects of traditional anesthetics. It appears that the secret EEG algorithm for depth of anesthesia will need to be updated to account for this mutation.

Cartoon adapted from image 66975 by Dave Coverly, Cartoonistgroup.com

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