



AUA

Association of University Anesthesiologists

Update

Spring 2003
50th Anniversary Issue

Inside:

Some Thoughts About AUA	3
The Presidential Scholar Award	5
The New Genomics: Microarrays	6
AUA-RRC Update	7
Future AUA Annual Meetings	9
AUA 50th Anniversary Meeting Program	10
AUA Book Review: <i>This Is No Humbug!</i>	12

Retaining Our Best and Brightest in Academic Medicine

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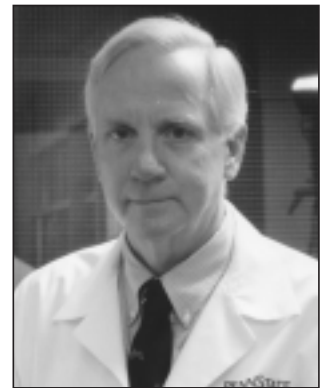
Mission Imbalance: From 1990 to 2003, the “Dilbert Generation academic physician” changed, from the moderately paid, reasonably secure medical school faculty member, to the highly paid, insecure academic involved almost solely in patient care, and wondering why he/she is not in private practice! (Adapted from: “Overworked and Overpaid: The American Manager.” London: *The Economist*, January 30, 1999.)

To many faculty members, particularly in anesthesiology departments, academic medicine is beginning to resemble private practice, which has only one mission. The major challenge facing academic medicine today is the recruitment and retention of talented and ambitious physicians, clinician-educators and clinician-scientists. Some of our most talented physician-scientists are seeing the reasons they went into academic medicine disappear, and that is a great threat to medical schools, which stand to lose these faculty to the private sector. Department chairs must ensure that new faculty have the time to develop their roles as educators and researchers. Deans *must* insist that department chairs have a balance between all three missions in their departments. All too often, deans are just as pleased that chairs ensure that their departments are financially in the “black,” and they do not require that chairs also demonstrate departmental success in research and scholarship. In addition, deans should ask that chairs demonstrate that they are truly allowing and enabling their faculty to develop their academic talents.

The challenge of keeping departments financially stable and of maintaining high morale by allowing physicians to pursue their teaching and research interests is a daunting one. The remedies and approaches to this challenge reside clearly

within the power of leadership of the deans and the leadership, responsibility and accountability of department chairs.

The Association of American Medical Colleges (AAMC) has embarked on a major research project to identify examples of leadership practices worthy of emulation in the fields of industry, higher education and academic medicine. AAMC research also addresses ideal approaches to the search, selection, recruitment and appointment processes of chairs as well as delineating their responsibilities, expectations and accountabilities. We hope that results of the research¹ will give academic leaders the tools they need to identify individuals who can inspire and lead their colleagues to make important contributions to their disciplines.



Julien F. Biebuyck, M.B., D.Phil

Continued on page 2



These three modules offered by the Association of American Medical Colleges provide helpful advice, describe good practices and present a wealth of documents and policies that a medical school department chair can apply to his or her institution.

Retaining Our Best and Brightest in Academic Medicine

Continued from page 1

We have been able to focus on the often divergent expectations that different constituencies have of the chair, specifically the differing expectations that the dean, the teaching hospital CEO and the faculty have. Clearly, we have found that these “ambiguous signals” cause stress and burnout in many chairs in the early period of their tenure.

In 2001, a task force of the faculty at the University of California–San Francisco School of Medicine explored the reasons for the decline in the number of clinician–scientist careers on that campus. The task force recommendations included the exhortation that department chairs should clearly delineate, at the time of a faculty appointment, the expectations in terms of clinical, teaching and research activities for a particular faculty member. In addition, the task force recommended that the chair should ensure that newly appointed faculty had the time to develop their academic as well as clinical talents to the fullest extent possible.

The University of Wisconsin Medical School in Madison, Wisconsin, offers a set of guidelines for clinical departments called “Protected Time for Tenure–Track Assistant Professors: Guidelines for Clinical Departments.”² These guidelines emphasize that “in order for junior tenure–track faculty to succeed, it is necessary that medical school departments provide enough protected time for scholarly activities.” The guidelines state that it is

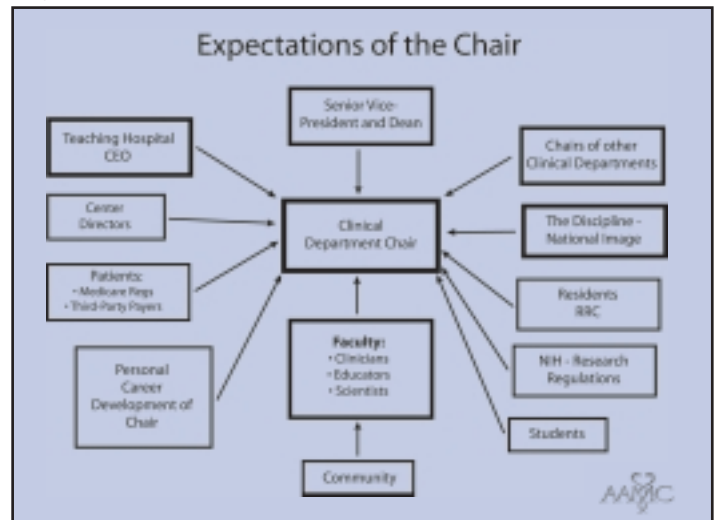
Our research has revealed that the way we identify and select chairs in academic medicine is wrong.

the chair’s responsibility to plan to provide sufficient protected time for research activities of junior faculty on the tenure track during each of their probationary years.

The AAMC research and publications series describe the crucial importance of the search and appointment process in the subsequent development of a successful chair. In fact, our research on “why chairs fail” demonstrates the role of these initial events in a chair’s career even before the search commences. For example, there can be negative consequences of a lack of agreement among the medical school leadership on the institutional strategic vision for that particular discipline. Such lack of careful institutional thought at the time of the resignation of the previous chair usually results in the failure of an accurate description of the characteristics to be sought in a new chair. Further, “early” indicators of chair conflicts in the future are a lack of involvement of key players in the search process (e.g., chairs of key departments and the teaching hospital CEO) and a lack of specificity in the dean’s charge to the search committee.

The chair’s letter of appointment from the dean must contain specific language describing responsibilities and the institution’s expectations of the chair. There should also be a specific definition of a component of the chair’s compensation that is tied to chair duties and successful leadership. Edward D. Miller, Jr., M.D., Dean of the Johns Hopkins School of Medicine, has described his eight criteria for evaluating chair performance (Module III, Biebuyck and Mallon, 2003), including: 1) current overall success of the entire institution; 2) financial success of the specific department; 3) success in garnering National Institutes of Health support; 4) success in program development;

Figure 1



5) success in faculty recruitment and retention; 6) success in cross–departmental projects; 7) success in obtaining philanthropic support; and 8) success in all aspects of good citizenship. It is worthy of note that the financial contribution of the chair’s personal clinical activity does not figure into these criteria, other than in the important indirect effects of that activity in retaining the respect of the faculty.

Our research has revealed that the way we identify and select chairs in academic medicine is wrong. We pay almost no attention to “succession planning,” and the search committees we appoint (whose membership is often composed of a preponderance of faculty) pay almost exclusive attention to the candidate’s “traditional” curriculum vitae, publications and research funding. Is there (or should there be) a different way to select chairs? How could candidates be asked to demonstrate skills in managing conflict, negotiating, effectiveness and recruitment? We should consider emulating some of our foremost corporations in developing “leadership assessment centers,” in conjunction with our leadership development programs.³

In conclusion, it appears to us that the successful chair today must “do what it takes” to balance the expectations placed on the position by a wide variety of constituencies [Figure 1], mentor and lead each faculty member to achieve his/her full potential in the particular mission(s) in which they excel, keep the department solvent and keep the department changing with the field and the environment.

For further information on the AAMC Research Project, visit: < www.aamc.org/successfulchair > .

References:

1. Biebuyck JF, Mallon WT. *The Successful Medical School Department Chair: A Guide to Good Institutional Practice*. Modules I, II and III. Washington, DC: Association of American Medical Colleges, 2002 and 2003.
2. < www.med.wisc.edu/Admin/hr/Docs/Faculty/ProtectedTimeforTenure-TrackFaculty.doc > .
3. Shaw KA. *The Successful President*. Phoenix, AZ: Oryx Press, 1999.

Some Thoughts About

AUA

E.M. Papper, M.D., Ph.D., 1915-2002

Editor's note: This article was written by Dr. Papper a few weeks before his death on December 3, 2002. It was intended to accompany his oral presentation at the AUA 50th Anniversary Meeting.

The forthcoming AUA Annual Meeting in Milwaukee, Wisconsin, will be a pleasant occasion by which all members can take stock of our beginnings and a few events between those beginnings and 2003, which marks AUA's 50th anniversary. The members of AUA can feel very proud of their accomplishments in bringing so much that is useful for the welfare of patients and for the great progress that has been made in understanding how to better improve both morbidity and mortality for the anesthetized patient. These activities, which are dramatic indeed, would not have been accomplished without the major input of AUA members. It might be interesting at this time to reflect somewhat on the evolution of these magnificent developments in research, education and clinical care.

At the Annual Meeting, there will be a more detailed summary and presentation of some of the experiences that took place during the founding of AUA. I think you will find it interesting to learn about a few of the problems that were present at AUA's inception and to reflect further on how they may contribute to the next important steps in the progress of our various missions.

AUA's Birth

AUA was born at a time of ferment and turbulence in society at large, in medicine in general and particularly in academic medicine. The establishment of AUA was partially motivated by a congruence of forces that, in retrospect, seemed almost bizarre and peculiar in their effect on medicine, especially anesthesiology.

AUA's birth was stimulated in part by World War II, which required great medical skill in treating our armed forces. Surgical care had to accommodate newer strategies of military combat that were faced by American military personnel. Although making useful progress prior to World War II, anesthesiology was, on the whole, ill-prepared to meet the severe trauma requirements resulting from a style of military combat that required fast-moving forces and long-distance engagement.

Looking retrospectively, we can now see that anesthesiology education and development was still in its early phases. The nation found itself with roughly 2 million men and women under arms and approximately (the exact number is not known) 50 physicians who had what would be viewed as adequate or reasonable education in anesthesiology to deal with all of these factors. To remedy the situation as best we could, sev-

eral programs were undertaken to persuade (by assignment!) young men, who had only a 90-day internship after graduation from medical school, to learn the elements of anesthesia quickly enough to carry out these many duties. Courses were established in several civilian institutions and also in on-the-job training in the armed forces. Many of these men were very much delighted and surprised with the kinds of activity that clinical anesthetic care of patients presented. A fair number of them, at the end of hostilities, sought civilian residencies in anesthesiology, which were not easy to come by since there were not that many available programs of high caliber. War World II, in one of its relatively important but unheralded activities, stimulated interest in anesthesiology to physicians who otherwise would have had no contact with the growing specialty.



E.M. Papper, M.D., Ph.D.

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The military experience also was an important factor in pointing out to young physicians and to young surgeons how badly more medical knowledge was needed to enhance the gains made by the experiences in the war and in the treatment of trauma. It was also an opportunity for future research. One young physician once said an interesting thing: "After I returned from the Army, I found that in my residency there was so very much to learn every day that I experienced continuous pleasure always." This was the situation, and it stimulated the interest of bright young physicians to enter a career in the relatively new field of anesthesiology and to concentrate on its academic aspects as well. Women physicians observed the intense

Continued on page 4

Some Thoughts About AUA

Continued from page 3

interest of the male veterans of the war and also were attracted to anesthesiology.

At this point, there was a sufficient cadre of very intelligent young physicians who were highly motivated to pursue the academic aspects of anesthesiology.

The Demand Grows

Seemingly unrelated, but coupled with this event, was a strong push on the part of organized anesthesiology to further advance and perhaps to capitalize on the individual instincts of physicians by influencing the financial aspects of clinical anesthesiology. The demand for anesthesiologists who were well educated was great, and there was a strong feeling in organized anesthesiology that there should be a departure from the old arrangements that many hospitals had prior to World War II, i.e., remuneration for services by salary structure of the hospitals. After the war, it was felt by many practitioners that this was no longer an acceptable method of remuneration for clinical practice and that a fee-for-service arrangement was much more desirable and “ethical” than was the salary structure of being hospital or university employees. No doubt there were many abuses of the old system, and, as sometimes is the case, there was a strong move on the part of the American Society of Anesthesiologists (ASA) to require practice that conformed to a fee-for-service approach. In fact, the over-correction of the previous abuses went so far as to result in the threatened loss of American Board of Anesthesiology accreditation for many conformists. A conflict was precipitated through the case of an individual anesthesiologist who had served long and well in the Army and in fact had a distinguished career culminating in the assignment as chief of anesthesiology at Walter Reed Hospital in Washington, D.C., the major, pre-eminent military hospital in the United States. It is important to add that this upheaval should have been unnecessary. It did suggest to some people, however, that measures had to be taken to protect the individuality of practice in the sense that other forms of remuneration were “ethically” acceptable, including certain salary structures if they were deemed to be useful to the individual who accepted it as well as the institution who furthered it. Flexibility was necessary to conduct meaningful research and education in the minds of many of us in the academic world.

Interestingly enough, the issue of salary structure has been greatly modified to a form of ethically acceptable group practice in most academic anesthesiology departments in the last two decades or so. This might seem ludicrous to anesthesiologists today in view of the massive overgrowth of confusing arrangements resulting largely in reductions of income for academic anesthesiologists as well as for private practitioners because of the “managed care” situation, which results in wastage of half of the money expended for medical care in the United States.

Wastage exists because large amounts of money are assigned to payment for administration, for profits and for high executive salaries — not for patient care. This is an ironic end to the argument about what is ethical and what is not. Our country stands in need of much repair, but that is digression from the AUA story.

AUA was formed, in part, as a response to these threatening restrictions. The problems, however, were effectively solved in due course rather quietly and peacefully in such a way that academic anesthesiologists not only remained an important part of ASA but became its major support system in the intellectual, research and educational aspects. This happy arrangement was eventually sealed when academic anesthesiologists acquired their amicable place in the leadership at AUA.

AUA's Bright Light in a Dark Time

In its early years, AUA faced a turbulent period in which the nation as a whole suffered the consequences of the McCarthy era, which spilled over into so many other activities. The interchange of information about research and many other aspects of anesthesiology were either directly or indirectly hampered by the closed intellectual world at the time of the cold war. There was almost no meaningful scientific communication between the Western world and the countries dominated by the Soviet Union at that time. The inability of scientists to communicate with each other was a major handicap, and it was one of the factors that impeded the growth and development of AUA and of anesthesiology around the world.

AUA therefore became a leader in the very important function of rapid transfer of new information from the laboratory environment to the clinical setting. One of the crucial results of

this development was the incredible

reduction of mortality due to anesthesia from a figure that was estimated to be 1:5,000 in the prewar days to approximately 1:450,000 today. This spectacular achievement was the result of the far-sighted commitment of attracting and educating highly competent physicians into the field as well as sponsoring their imaginative and creative research so that the intellectual gains became practical ones for the welfare of the nation and the world. The National Institutes of Health played an important role in the advancement of anesthetic competence by supporting the education of anesthesiologists in research and in transferring that research knowledge into clinical care.

So impressive were these accomplishments that there were many who believed that the dangers of clinical anesthesia were at an end since it was now the property of “every man and every woman.” An interesting aspect of this error is the realization that the mechanism of the anesthetic process itself is still obscure, and research, while very important and productive, has not yet actually answered the basic questions about how anesthetics work.

As a speculation, it seems desirable that some anesthesiologists would be willing, as were others in the past who were faced with similar problems, to undergo the rigorous training and education required for competence in these fields and to solve unanswered problems.

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The Presidential Scholar Award

James E. Cottrell, M.D., President
American Society of Anesthesiologists

The first objective of AUA, "encouragement of its members to pursue original investigations in the clinic and in the laboratory," complements Article One of the ASA Bylaws: "to raise the standards of the specialty by fostering and encouraging education, research and scientific progress in anesthesiology."

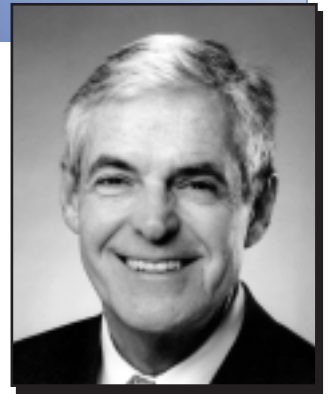
Unfortunately, despite the good efforts of both organizations, submissions from American authors to *Anesthesiology* have declined in recent years. Sixty-five percent of articles submitted for consideration are from researchers in countries outside the United States. There also has been a significant decrease in the number of applications submitted for grants from the Foundation for Anesthesia Education and Research (FAER). While the state of the economy and workforce issues in anesthesiology account for some of these declines, we cannot wait for unknown forces to set things right. We must use whatever means are available to prevent a lag in the development of new knowledge.

Investigations performed by anesthesiologists into the mechanisms of anesthesia, anesthesia practice and a broad range of related topics are essential to the integrity of our specialty. In an effort to stimulate scientific advancement by recognizing colleagues who dedicate their formative careers to research, ASA is instituting a new program: **The Presidential Scholar Award**. The goal of this award is to highlight research by young faculty in departments of anesthesiology.

Anesthesiologists who are within seven years of their first appointment to a department of anesthesiology, who are board-certified and who spend at least two days a week in clinical practice are eligible for this award. Candidates should be nominated for the award by their department chair who should submit each nominee's curriculum vitae and copies of three exemplary articles (published or in press).

The submission of nominations must be received by **May 15, 2003**, and may be sent to:

Michael K. Cahalan, M.D., Chair
ASA Committee on Research
Department of Anesthesiology
University of Utah
30 N. 1900 E., Room 3C444
Salt Lake City, UT 84132



James E. Cottrell, M.D.

The Committee on Research will judge the applications and select a winner. The award will be based on the body of research that the attending anesthesiologist has generated and not on a single paper. Qualifying research can be either clinical or basic science, but it should significantly advance the practice of anesthesiology or the scientific basis for anesthesia practice.

The recipient of the first Presidential Scholar Award will be announced at the Emery A. Rovenstine Memorial Lecture session during the ASA Annual Meeting on October 13, 2003, in San Francisco, California. The recipient will be asked to present his or her research, along with the winner of the Excellence in Research Award and the winner of the Residents' Research Contest, at a plenary session following the Rovenstine lecture.

In the clinic, in the classroom and in the organization of our professional societies, we need to maintain the emphasis on research that makes anesthesiologists indispensable to anesthesiology. Science and education are not luxuries. They are essentials that we cannot afford to be without. In keeping with the spirit of AUA on its 50th anniversary, please help by encouraging the nomination of candidates for the Presidential Scholar Award and by recognizing future recipients of the award.

Continued from page 4

Future Directions

It is very difficult for someone who is, at best, an interested amateur like myself to even speculate sensibly about the direction that research has to go to solve these basic questions. My guess, for what it is worth, is that a new focus needs to be developed to cope with the present unknowns and to create research directions that can solve the present vexing questions. Perhaps such research is in progress at some institutions, and, if that is the case, there will be a hopeful response to it in the future. Even the amateur follower of science is aware of the vast developments in molecular biology, genetic physiology and pharmacology. Maybe these disciplines will provide a basis for anesthetic research in the future. If so, it would require a new competence in anesthesiologists to take advan-

tage of this new aspect of research. As a speculation, it seems desirable that some anesthesiologists would be willing, as were others in the past who were faced with similar problems, to undergo the rigorous training and education required for competence in these fields and to solve unanswered problems.

The founders of AUA, recognizing their own limitations, hoped for and encouraged freedom of intellect and of spirit. They wished for vigorous, creative imagination to thrive and flourish. To that end, continual exploration should be encouraged to reduce the areas of ignorance, and the appropriate means to do so should always be flexible. The future is as bright and as stimulating as adventure into the unknown provides. I hope that many AUA members now and in the future will support these freedoms and engage in the willingness to accept constructive change.

The New Genomics: Microarrays

Gregory A. Michelotti, Ph.D.
Debra A. Schwinn, M.D.
Duke University Medical Center
Durham, North Carolina

Scientific research (both basic and clinical) has been quick to take advantage of the genetics revolution to investigate the role of naturally occurring genetic variability in altering patient outcome, response to pharmacologic treatment and mechanisms of disease. However, most current genetic studies involve deciding which gene to study “a priori” and then testing the hypothesis. By nature, this is a limited approach since it assumes that all mechanisms involved in clinical disease are understood. Of course, this is not the case; therefore, some genetic studies using candidate gene approaches are by nature biased unless great care is given to examining specific genes as models for families of proteins with common physiologic functions. Even when such care is taken, due to the nature of our ignorance regarding disease mechanisms, researchers will sometimes choose the wrong genes to study. Enter functional genomics.

Microarray technology has emerged as an extremely powerful tool since it facilitates high-throughput analysis of genes and gene products by quantifying changes in global mRNA and protein levels, respectively.

Functional genomics has been defined as the comprehensive study of whole sets of genes and their interactions as opposed to the traditional study of single genes or proteins, since individual analysis of the 30,000–70,000 expressed genes in the human genome is not practical. Microarray technology has emerged as an extremely powerful tool since it facilitates high-throughput analysis of genes and gene products by quantifying changes in global mRNA and protein levels, respectively.

DNA microarrays, or “chips,” are segments of expressed genes (either cDNA or oligonucleotide fragments) that are immobilized in a known pattern onto a solid support (typically glass). Identical chips are then hybridized to fluorescently tagged nucleic acid (RNA or DNA) isolated from experimental versus control samples. Fluorescent intensity is quantified, usually with the control condition subtracted from the experimental condition, thus facilitating simultaneous determination of which of thousands of genes are altered by the experimental condition. Ideally, DNA microarrays can be utilized for hypothesis generation, identification of novel therapeutic targets and/or delineation of complex patterns of gene expression that can provide a molecular genotype (molecular fingerprinting). This technique has been successfully employed for molecular fingerprinting B-cell lymphomas (such as diffuse, large B-cell lymphoma) where germinal center B-like and activated



Gregory A. Michelotti, Ph.D.



Debra A. Schwinn, M.D.

B-cell-like subgroups differ in the expression of more than 1,000 genes and, more importantly, have a markedly different clinical outcome. Although less developed, protein chips also are available for several species. Since this approach often utilizes a battery of antibodies — hence, as more proteins are identified and antibodies produced from newly discovered genes — this analysis approach should expand.

Current limitations of microarrays/chips include lack of consensus standards for data collection, analysis and validation. It is critical to understand these limitations if one is to apply findings of a given study more globally. Additionally, DNA chips will be of limited use in cases where regulatory control is at the protein level, independent of gene expression, such as the case for NFkB regulation important in cytokine activation and inflammatory response. Thus, both functional genomics (DNA/RNA-level regulation) and proteomics (protein regula-

Current limitations of microarrays/chips include lack of consensus standards for data collection, analysis and validation.

tion) will be required to gain insight into the enormously complex cellular regulatory networks. Great strides are being made in the bioinformatics arena to collect and normalize data, and technical advances are improving reproducibility (since variability can be as high as 33 percent within an experimental set, thus requiring independent corroboration of important target genes). As each of these concerns are resolved, the simultaneous analysis of thousands of genes should provide diagnostic, prognostic and mechanistic insight to improve management of pathology. As our arsenal of molecular therapies expands, molecular diagnosis using DNA chips will be seen as an integral component of patient management and will help to usher in the promise of molecular medicine and individually tailored therapeutic regimens.

AUA RRC Update

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The Residency Review Committee (RRC) for Anesthesiology met in mid-March to discuss a number of issues of primary interest to program directors and academic department faculty. Agenda items scheduled include:

1. Program and educational impact of the resident duty hour requirements scheduled for a July 1, 2003, implementation;
2. Incorporation of the first year of training under the jurisdiction of the anesthesiology RRC and residency program;
3. Requirements for core competency assessment and current program responses.

It is important for academic faculty to understand the composition of the RRC and its governance. The RRC for Anesthesiology is one of 26 residency review committees that are delegated authority by the Accreditation Council for Graduate Medical Education (ACGME) to prepare and periodically revise program requirements and to review the residency programs to determine whether they remain in substantial compliance with the requirements. The RRC has three appointing organizations: the American Board of Anesthesiology (ABA), the American Medical Association (AMA) and the American Society of Anesthesiologists (ASA), each of which appoint three members. In addition, a resident member is appointed by the ASA Resident Section. With the exception of the resident member who serves a two-year term, the appointments are a maximum of six years. The secretary of ABA

Residency Review Committee for Anesthesiology

Title	Name	Affiliation
Chair	James F. Arens, M.D.	ASA
Ex-Officio	Patricia A. Kapur, M.D.	ABA
	Mark A. Rockoff, M.D.	ABA
	Mark A. Warner, M.D.	ABA
	Steven C. Hall, M.D.	ABA
	Philip D. Lumb, M.B.	ASA
	J. Jeffrey Andrews, M.D.	ASA
	Susan L. Polk, M.D.	CME
	David L. Brown, M.D.	CME
Wayne K. Jacobsen, M.D.	CME	
Resident Member	Maneesh Sharma, M.D.	ASA

attends the meetings as an ex-officio member without vote. The ACGME staff of the RRC includes the RRC executive director and an administrator. The committee composition and staffing ensure stability, which avoids lapses in either philosophy or continuity that would otherwise compromise the consistency of academic oversight.



Philip D. Lumb, M.B.

The resident duty requirements scheduled for implementation later this year are perhaps the most significant issues facing specialty RRCs and core training programs in the coming months.

ACGME President David Leach, M.D., wrote to RRC chairs earlier this month, indicating that “this edition of the Requirements, to be effective by July 1, 2003, applies to all RRCs as part of the Common Program Requirements. An RRC may, however, propose changes that make the requirements more restrictive, but not less so. For example, an RRC may propose that a ‘should’ be changed to a ‘must’ but not the other way around.” He added, “It is important that your RRC consider these sections at the earliest time and either acknowledge acceptance of this language or propose stricter language appropriate for your RRC.”

ACGME next meets on June 24, 2003, so it is evident that the AUA RRC deliberated these issues as an urgent agenda item in March. The importance of this issue is obvious; the impact on anesthesiology programs is likely to be less significant than that seen in other disciplines but, certainly, the requirements are encompassing and must be understood by all program directors. Although there are many important aspects of the regulations, perhaps the most significant is incorporated in the following section that defines duty hours.

- A. Duty hours are defined as all clinical and academic activities related to the residency program, i.e., patient care (both inpatient and outpatient), administrative duties related to patient care, the provision for transfer of patient care, time spent in-house during call activities and scheduled academic activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.
- B. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.
- C. Residents must be provided with one day in seven free from all educational and clinical responsibilities, averaged over a four-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all clinical, educational and administrative activities.
- D. Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided between all daily duty periods and in-house call.

Continued on page 8

AUA-RRC Update

Continued from page 7

Other sections cover appropriate clinical scheduling with respect to educational activities, permissible moonlighting activities and other aspects of resident work experiences. The document's intent is to strengthen the residents' learning experiences in all disciplines. I believe anesthesiology can move forward with confidence in the recognition that our specialty has been in the forefront of positive educational change for many years.

A second issue is the possible incorporation of jurisdictional oversight for the PGY-1 year into the core program's responsibility. This is a nonissue for those institutions offering integrated training but is of significance for those programs accepting PGY-2 (CA-1) residents from transitional programs, which has implications for the continuing debate about the potential for increased training in critical care and general medicine during this year. The implication is that if the requirement for core program jurisdiction over the first year is RRC-mandated, training programs will be strengthened and a more uniform curriculum created. The likelihood is that core programs without comprehensive first-year training availability will develop consistent relationships with transitional year programs that should welcome the constancy and predictability of the resident rotations.

Discussion of this issue has been pursued vigorously by the Society of Academic Anesthesiology Chairs-Association of Anesthesiology Program Directors (SAAC-AAPD) membership, and ongoing dialogue between the RRC and program directors is under way. The topic is further complicated by the House of Delegates debate at the last ASA Annual Meeting in which the topic of increased exposure to critical care medicine was discussed. Finally, it is important to understand the context in which the RRC is undertaking discussion on this issue; it is to integrate and improve the overall residency experience rather than to complicate the lives of the current program directors.

The third issue of importance to the specialty at this time concerns selecting, assessing and reporting compliance with ACGME's focus on core competencies. As you are aware, RRCs began assessing program compliance with this requirement in July 2002, and SAAC-AAPD has initiated a call for best practices that address this important topic. The important concepts are copied below from the ACGME Web site at <www.acgme.org/outcome/comp/compMin.asp>. More detailed information can be found from the main site at <www.acgme.org>.

Minimum Program Requirements Language Approved by the ACGME, September 28, 1999

Educational Program

The residency program must require its residents to obtain competencies in the six areas below to the level expected of a new practitioner. Toward this end, programs must define the specific knowledge, skills and attitudes required and provide educational experiences as needed in order for their residents to demonstrate:

- A. *Patient Care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health;*
- B. *Medical Knowledge about established and evolving biomedical, clinical and cognate (e.g., epidemiological and social-behavioral) sciences and the application of this knowledge to patient care;*
- C. *Practice-Based Learning and Improvement that involves*

investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence and improvements in patient care;

- D. *Interpersonal and Communication Skills that result in effective information exchange and teaming with patients, their families and other health professionals;*
- E. *Professionalism as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse patient population;*
- F. *Systems-Based Practice as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.*

Evaluation

Evaluation of Residents

The residency program must demonstrate that it has an effective plan for assessing resident performance throughout the program and for utilizing assessment results to improve resident performance. This plan should include:

- A. *Use of dependable measures to assess residents' competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems-based practice;*
- B. *Mechanisms for providing regular and timely performance feedback to residents;*
- C. *A process involving use of assessment results to achieve progressive improvements in residents' competence and performance.*

Programs that do not have a set of measures in place must develop a plan for improving their evaluations and must demonstrate progress in implementing the plan.

Program Evaluation

- A. *The residency program should use resident performance and outcome assessment results in their evaluation of the educational effectiveness of the residency program.*
- B. *The residency program should have in place a process for using resident and performance assessment results together with other program evaluation results to improve the residency program.*

Obviously, AUA members will be deeply involved in all aspects of these requirements, as they affect global residency training. The RRC will be grateful for innovative and specialty-specific insights into managing program compliance with this initiative.

At the recent SAAC-AAPD meeting, James F. Arens, M.D., RRC chair, presented on the RRC's current activities, which appear below. Asked "What is the RRC doing at the present time?" Dr. Arens reported that:

1. The RRC is redoing the format for case log reports. Better definitions need to be made in order to match today's practices.
2. The minimum number of cases and the number of residents who fail to meet the minimums are being analyzed to see if the current requirements are realistic. The core program and pediatric program logs are being done first, with pain and critical care to follow.
3. Call experience is being evaluated. Call experience currently is not in the requirements, but if the question is asked, the answer from the RRC and the board will be: "Clinical com-

ponents include: Significant experience with the provision of anesthesia for other emergency procedures during night-time and weekend hours.”

4. There is an issue of research in critical care units because some university attorneys are saying that obtaining consents for research from surrogates is a violation of Health Insurance Portability and Accountability Act regulations.
5. The RRC will carbon copy the chair in all correspondence with program directors.
6. The RRC is beginning to update the program requirements from the core and pediatric anesthesia programs.
7. The president of SAAC-AAPD will be invited to the spring business meeting to participate in discussions.
8. The RRC will solicit the help of the program directors in developing competencies specific to anesthesiology.

On a personal note, I find that current residents educated under the rubric of a “problem-based” or “case-based” medical school curriculum are an exciting challenge for residency train-

ing. These results are more integrated and supportive of one another, and I find that they adapt readily to interactive discussions and are likely to work well for the group as well as have a zeal for personal achievement. I anticipate that we shall gradually modify residency training to adapt to the concept of “life-long” learning, and I look forward to the challenges ahead. Certainly, our specialty is strong, and despite numerous challenges ahead, the future looks bright, academically and professionally.

This update is an attempt to acquaint AUA members with the activities of your RRC. The important aspect of the RRC is that it is a representative body charged with the responsibility of ensuring the excellence of anesthesiology resident education. To date, close working relationships between the RRC, AUA, ABA and SAAC-AAPD have provided a collegial and interactive environment from which current information about the most important aspects of developing new knowledge is derived. I believe that our specialty is a leader among ACGME disciplines in providing excellent evaluation, examination and oversight of our programs.

Future AUA Annual Meetings

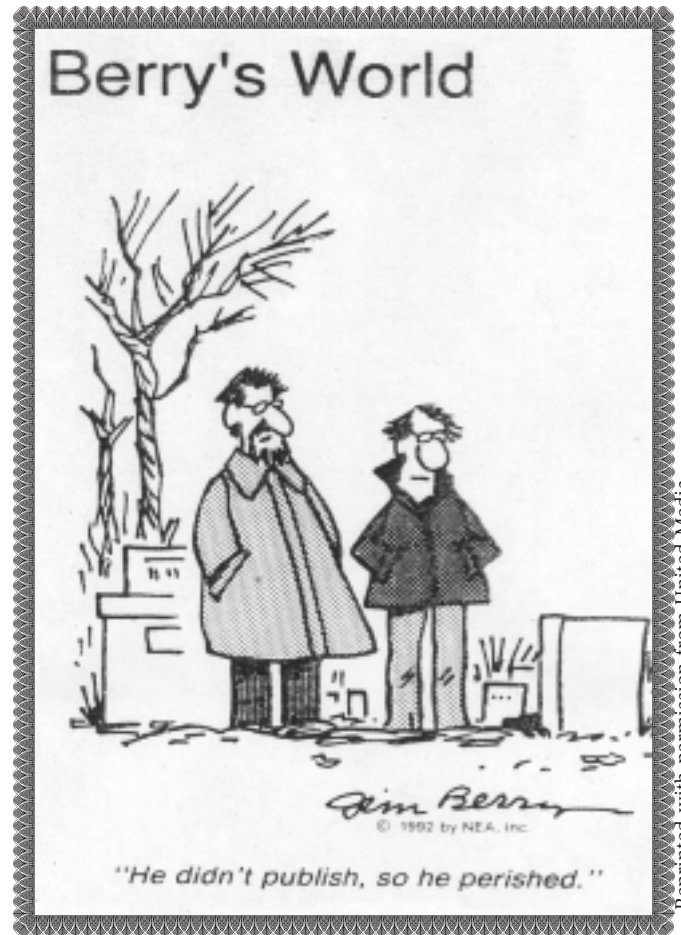
The AUA Council approves future host institutions and city locations four years prior to the actual meeting. The AUA Council is now looking for an institution to host the 2007 Annual Meeting. Visit < www.auahq.org > for more information about hosting an AUA Annual Meeting. If you are interested in having your institution host a meeting, send a proposal to the address listed below. Proposals must be received by Friday, **April 25, 2003**, and sent to:

Donald S. Prough, M.D., President
Association of University Anesthesiologists
520 N. Northwest Highway
Park Ridge, IL 60068-2573

The AUA 2004 Annual Meeting will be held May 13-15 at the Sheraton Sacramento Hotel in Sacramento, California. The University of California-Davis will host this meeting.

Other future AUA Annual Meeting locations are:

- | | |
|------|--|
| 2005 | Baltimore, Maryland |
| | Hosted by The Johns Hopkins University |
| 2006 | Tucson, Arizona |
| | Hosted by the University of Arizona |



*Perhaps this caption should have read:
“He published, but he perished anyway.”*
— The Editor

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AUA and the Medical College of Wisconsin invite you to attend the

AUA 50th Anniversary Meeting

May 1-3, 2003

Pfister Hotel

Milwaukee, Wisconsin



Thursday, May 1

4 p.m. – 6:30 p.m.

Art Viewing at the Milwaukee Art Museum

5:30 p.m. – 6:30 p.m.

Resident/Fellow Reception at the Pfister Hotel

6:30 p.m. – 8 p.m.

Registration at the Milwaukee Art Museum

6:30 p.m. – 10 p.m.

Welcome Reception at the Milwaukee Art Museum

Friday, May 2

7 a.m. – 8 a.m.

Continental Breakfast

8:00 a.m. – 8:15 a.m.

Introduction to the 50th Anniversary Meeting

John P. Kampine, M.D., Ph.D.

David F. Stowe, M.D., Ph.D.

Medical College of Wisconsin

Scientific Advisory Board Program, Part 1

8:15 a.m. – 8:30 a.m.

Introduction, Jeffrey R. Balsler, M.D., Ph.D., Vanderbilt University

8:30 a.m. – 10:15 a.m.

Oral Presentations

8:30 a.m. – 8:45 a.m.

Changes in Primary Afferent Sensory Fibers and Tissue pH by Incisions: Mechanisms for Postoperative Pain, Timothy J. Brennan, M.D., University of Iowa

8:45 a.m. – 9 a.m.

Ketamine Interacts With the $\alpha 7$ Nicotinic TM2-3 Extracellular Loop, Pamela Flood, M.D., Columbia University

9 a.m. – 9:15 a.m.

Structure and Dynamics of Second Transmembrane Domain of nAChR $\beta 2$ Subunit, Pei Tang, M.D., University of Pittsburgh

9:15 a.m. – 9:30 a.m.

Dynamic Analysis of Spatial Information Encoding in the Rat Hippocampus, Emery N. Brown, M.D., Massachusetts General Hospital

9:30 a.m. – 9:45 a.m.

Adenoviral-Mediated Pulmonary Expression of HSP-70 Limits NF-KB Activation, Yoram G. Weiss, M.D., Hadassah Hebrew University

9:45 a.m. – 10 a.m.

The Capsaicin Receptor: Structural Divergence and Regulation of Gene Expression, Mark A. Schumacher, M.D., Ph.D., University of California-San Francisco

10 a.m. – 10:15 a.m.

From Stem Cells to Therapy: Erythropoietin and Parkinson's, Marie Csete, M.D., Ph.D., Emory University

10:15 a.m. – 10:45 a.m.

Coffee Break and Poster Viewing

10:45 a.m. – 11:45 a.m.

AUA President's Program

Donald S. Prough, M.D., AUA President

Tommy G. Thompson, Secretary of Health and Human Services

11:45 a.m. – 1 p.m.

Group Luncheon

11:45 a.m. – 1 p.m.

EAB, SAB and Presidents' Luncheon

1 p.m. – 1:15 p.m.

ASA President's Address

James E. Cottrell, M.D., President,

American Society of Anesthesiologists (ASA)

Educational Advisory Board Program, Part 1 Anesthesia and Perioperative Medicine

1:15 p.m. – 1:25 p.m.

Introduction, Jonathan B. Mark, M.D., Duke University Medical Center

1:25 p.m. – 2:05 p.m.

ASA Perspectives on Anesthesia Perioperative Medicine, James E. Cottrell, M.D., President, ASA

2:05 p.m. – 2:45 p.m.

American Board of Anesthesiology (ABA) Perspectives on Anesthesia Perioperative Medicine, Stephen J. Thomas, M.D., Past President, ABA

2:45 p.m. – 3 p.m.

Coffee Break and Poster Viewing

Educational Advisory Board Program, Part 2

The ACGME Outcomes Project and Anesthesiology Education

3 p.m. – 3:30 p.m.

The ACGME Outcomes Project: Perspectives from the Source, David C. Leach, M.D., Executive Director, ACGME

3:30 p.m. – 4 p.m.

The ACGME Outcomes Project: What It Means for Anesthesiology Accreditation, Judith S. Armbruster, Ph.D., Executive Director, Anesthesiology Residency Review Committee, ACGME

4 p.m. – 4:30 p.m.

The ACGME Outcomes Project: Competencies, Outcomes and Quality: Opportunities for Scholarship and Leadership, Michael G. Richardson, M.D., Vanderbilt University

4:30 p.m. – 5:15 p.m.

NIH Session

Preventing the Extinction of Anesthesia Research, Debra A. Schwinn, M.D., Duke University Medical Center

6 p.m. – 11 p.m.

Evening at the Milwaukee Public Museum

Saturday, May 3

7 a.m. – 8 a.m.

Continental Breakfast and Poster Viewing

Host Program From the Medical College of Wisconsin

8 a.m. – 8:15 a.m.

Medical College of Wisconsin: Mission, Facts and Growth, Michael J. Dunn, M.D., Executive Vice-President and Dean, Medical College of Wisconsin

8:15 a.m. – 9 a.m.

Functional Brain Imaging: A Vision of Vision for Lab and Clinic, Edgar A. DeYoe, Ph.D., Professor, Cell Biology, Neurobiology and Anatomy, Medical College of Wisconsin

9 a.m. – 9:45 a.m.

Are We Really Headed for a Physician Shortage?, Richard A. Cooper, M.D., Professor and Director, Health Services, Research Health Policy Institute, Medical College of Wisconsin

9:45 a.m. – 10:15 a.m.

Coffee Break and Poster Viewing

10:15 a.m. – 11 a.m.

Genetics, Genomics and Clinical Medicine, Howard J. Jacob, Ph.D., Director, Human and Molecular Genetics Center, Medical College of Wisconsin

11 a.m. – 11:45 a.m.

Water: Our Planet's Most Abundant, Scarce Resource – Do We Have Enough?, J. Val Klump, Ph.D., Senior Scientist, Center for Great Lakes Studies, University of Wisconsin-Milwaukee

11:45 a.m. – 1 p.m.

Luncheon: The Happy Growth of AUA, William K. Hamilton, M.D.,

Professor Emeritus of Anesthesia, University of California-San Francisco

1 p.m. – 1:45 p.m.

AUA Business Meeting

Scientific Advisory Board Program, Part 2

1:45 p.m. – 2:30 p.m.

Oral Presentations

1:45 p.m. – 2 p.m.

Single Exposure to General Anesthetics Causes Widespread Neurodegeneration in the Developing Rat Brain and Persistent Learning Deficits, Vesna Jevtovic-Todorovic, M.D., University of Virginia Health System

2 p.m. – 2:15 p.m.

Volatile Anesthetics Differentially Protect Renal Function After Ischemic Reperfusion Injury in Rats, H. Thomas Lee, M.D., New York Presbyterian Medical Center, College of Physicians & Surgeons

2:15 p.m. – 2:30 p.m.

Nitrous Oxide and Volatile Anesthetics Act Through Distinct Mechanisms In Vivo: Genetic Evidence in C.elegans, Peter Nagele, M.D., University of Vienna, Austria

2:30 p.m. – 3:15 p.m.

Scientist–Clinician: Going to Extremes, Warren M. Zapol, M.D., Anesthetist-in-Chief, Massachusetts General Hospital, Reginald Jenny Professor of Anaesthesia, Harvard Medical School

3:15 p.m. – 3:30 p.m.

Coffee Break and Poster Viewing

3:30 p.m. – 5 p.m.

Poster Discussion

6 p.m. – 10 p.m.

Reception and Banquet Gala Dinner at the Pfister Hotel

The Pfister

Nestled within downtown Milwaukee's exclusive east side and thriving financial district, the decade-old Pfister Hotel is just 20 minutes from General Mitchell International Airport. The very best of downtown Milwaukee is within walking distance of the hotel. The Pfister offers a fitness center and an indoor pool with fabulous views of the city and two outstanding restaurants, the Lobby Lounge and Blu, the Pfister's new 23rd-floor lounge.



Accreditation Statement for Jointly Sponsored Activities

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Medical College of Wisconsin and the Association of

University Anesthesiologists. The Medical College of Wisconsin is accredited by the ACCME to provide continuing medical education for physicians.

Designation of Credit Statement

The Medical College of Wisconsin designates this educational activity for a maximum of 15.75 category 1 credits toward the AMA Physician's Recognition Award. Each physician should claim only those credits he/she actually spent in the activity.

Resident and Fellow Attendance

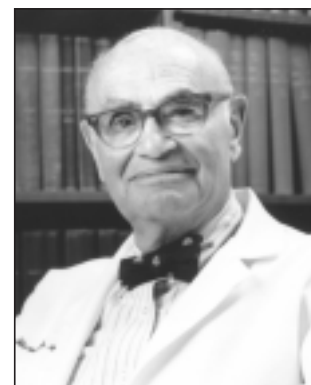
AUA encourages members to expose their residents/fellows to academic anesthesia by registering interested residents and fellows for the meeting. A special resident/fellow and sponsoring member reception will be held on Thursday evening, May 1, at the Pfister Hotel prior to the Welcoming Reception at the Milwaukee Art Museum. Resident/fellow attendance is limited to two residents/fellows per program.



AUA Book Review

The History of Anesthesiology in 1 Volume? No Humbug!

Leroy D. Vandam, M.D.
Professor of Anesthesia, Emeritus
Harvard Medical School
Department of Anesthesia
Brigham and Women's Hospital
Boston, Massachusetts



Leroy D. Vandam, M.D.

The following is a review of the book, *This Is No Humbug*, Richard J. Kitz, M.D., ed. Boston: Massachusetts General Hospital; 2002. This volume includes a forward by the late E.M. Papper, M.D.

Verily, this handsome, imposing volume provides us with a tapestry of anesthesiology's development. The title, *This Is No Humbug*, echoes the immortal words spoken by surgeon John Collins Warren, M.D., on October 16, 1846, as he sutured an incision on the neck of patient Edward Gilbert Abbott. To complete the assertion made above, the book jacket displays a recent version by Warren Prosseri of the oil painting, "First Operation With Ether," originally painted by Robert Hinckley over the years 1882–1893.



The Massachusetts General Hospital (MGH) closely followed a trend begun by a coterie of Midwestern American physicians around the turn of the century toward professional anesthesia. Accordingly, in 1903, the trustees of MGH appointed one Freeman Allen as consulting anesthetist. He had been a pupil of Dr. Thomas A. Bennett of New York, a leading exponent of the then burgeoning field. Dr. Allen's income was derived from private practice while he also supervised the work of nurse anesthetists. Dr. Allen's successors recall him fondly as "Ether" Allen even though he was also skilled in giving spinal anesthesia.

In a text of such wide scope, it is not a simple matter to cite all of the essays and their authors who were well known at the time. Richard J. Kitz, M.D., a pupil of E.M. Papper, M.D., who had done elemental studies on the action of cholinesterases, was appointed chair of the department and Dorr Professor in 1969, succeeding Henry Knowles Beecher, M.D. Dr. Kitz' management skills were such that after his regime, he was appointed faculty dean for clinical affairs at Harvard Medical School. The Dorr Chair was actually designated the Henry Isaiah Dorr Professorship of Research and Teaching on Anaesthetics and Anaesthesia, a bequest in 1917 made by a dentist in

Philadelphia. Dr. Beecher had discovered the bequest in searching the Harvard archives. A claim was made at the time that the Dorr Professorship was the first ever established, an assertion that was vigorously denied by the British with their Nuffield chairs.

Dr. Beecher was arguably the most original of professors. He had written on lung physiology, the meaning of placebo, a study of anesthetic deaths (with D. Todd), the action of morphine in volunteers, a history (with M. Altshul) on Harvard Medical School and the determination of brain death in transplantation.

A claim was made at the time that the Dorr Professorship was the first ever established, an assertion that was vigorously denied by the British with their Nuffield chairs.

While on the subject of endowed chairs, their founding possibly adds considerably to the financial health of a medical department, particularly during these days of diminished income from second-party payers. The Reginald Jenny Chair at MGH was originally held by Henning Pontoppidan, M.D., who had led the respiratory intensive care unit in company with Myron Laver, M.D., and others. Warren M. Zapol, M.D., now chief of anesthesia services and well known for his studies on ECMO, is currently the Jenny Professor. Edward Lowenstein, M.D., an early exponent of the use of opioids in cardiac anaesthesia, now holds the Dorr Chair. Keith W. Miller, M.D., is the Edward Mallinckrodt Jr., Professor, occupied with molecular mechanism of anesthesia. Finally, Clifford Woolfe, M.D., in the newly established Kitz Chair, deals with the neurophysiology of pain.

Histories of this nature can only be written on behalf of the larger research departments. Thus, I have recently had the pleasure of perusing the story of Mayo Clinic anesthesia, founded by John S. Lundy, M.D. I recall *Anaesthesia From Colonial Times* by James Eckenhoff, M.D., at the University of Pennsylvania. Then there is the inimitable cartoon drawn by Lucien Morris, M.D., of the Aqua Alumni tree at the University of Wisconsin, the first anesthesiology residency program in the United States.

Beauty lies in the eye of the beholder, and so does critical assessment. This narration could have been enormously improved by the appendage of an index as well as by condensing some of the essays.