

# NEWSLETTER

VOLUME 70 NUMBER 9

SEPTEMBER 2006

## Treasures of the WLM



*Lüer Chloroform  
Mask*



*Charrière Inhaler*



*Cotton-Boothby  
Apparatus*

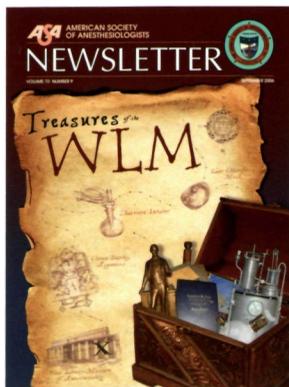


*State of Georgia*



*Wood Library-Museum  
of Anesthesiology*





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Thanks to the Wood Library-Museum of Anesthesiology, we know where our specialty's been, where it is and where it's going. This issue is dedicated to the constantly evolving WLM, the world's most comprehensive library and museum devoted to anesthesiology.

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The ASA NEWSLETTER (USPS 033-200) is published monthly for ASA members by the American Society of Anesthesiologists, 520 N. Northwest Highway, Park Ridge, IL 60068-2573. E-mail: mail@ASAhq.org  
Editor: Newsletter\_Editor@ASAhq.org  
Web site: http://www.ASAhq.org  
Periodical postage paid at Park Ridge, IL, and additional mailing offices.

**POSTMASTER:** Send address changes to the ASA NEWSLETTER, 520 N. Northwest Highway, Park Ridge, IL 60068-2573; (847) 825-5586.

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**SUBSTANCE ABUSE HOTLINE:**

Contact the ASA Executive Office at (847) 825-5586 to obtain the addresses and telephone numbers for state medical society programs and services that assist impaired physicians.

## The PAC, Professionalism and Patrick Sim

**P**atrick Sim, M.L.S., Librarian of the Wood Library-Museum of Anesthesiology (WLM), was my first introduction to ASA. As a fourth-year medical student, I was working on an essay for the Osler Medal competition of the American Association for the History of Medicine. The paper was on the development of the specialty of anesthesiology in the 1920s and 1930s. My advisor had discovered the existence of the archives at the WLM and made arrangements for me to spend two days in Park Ridge studying the material, as primary sources are critical to any outstanding historical essay.

I was staying in a downtown Chicago hotel, and I took a cab out to Park Ridge. Mr. Sim met me at the door to the old headquarters building on Busse Highway. We went up to his office and talked. Part of the conversation I remember well, as Patrick gently questioned my knowledge of the time period and the history of the Long Island, New York and American societies. I must have passed the quiz, for shortly thereafter I was reading the minutes of the Long Island Society in the original notebook. A couple of hours later, Mr. Sim asked if I was hungry and took me to lunch at Burger King across the street. Thus began one of my favorite interactions with Patrick, having lunch and talking about the history of anesthesiology.

The time seemed somehow shorter on the second day in Park Ridge. There were "mountains" of documents to pore through, all telling an intricate piece of the history of ASA and the specialty. Lunch was again another wonderful time, but at a Chinese restaurant near the Park Ridge building. Most of the afternoon was spent copying important documents that were critical to the paper. Although I did not win the Osler Medal that year, my career-long association with the WLM and Patrick Sim, both personal and professional, had begun.

For the past 35 years, Patrick has been the face of the WLM to ASA and the public. While presidents of the WLM have come and gone, Patrick has been the one constant — guiding, caring and preserving the history of anesthesiology. For the first 17 years of his career, Patrick toiled alone. In 1988 an assistant librarian was added to help Patrick with the reference work and allow him to concentrate on the rare book and other collections. Yet in the more than 20 years I have known Patrick, I have never seen him upset, angry or perturbed. He possesses a real "can do" attitude, and nothing seems impossible for him. Patrick is intensely loyal to ASA first and foremost, to the WLM and to the medical specialty of anesthesiology.



Douglas R. Bacon, M.D.,  
Editor

Why bother to tell this story?

Patrick, in my experience, is not unique. Free references from the medical literature, the WLM's most visible benefit to ASA members, total more than 1,000 requests a year and are handled by Assistant Librarian Karen Bierterman, M.L.I.S. The WLM staff makes information accessible — without fanfare or the expectation of praise. When complimented on their work, the WLM staff, like the ASA staff, tend to shrug it off as just doing their job. Judith Robins, the Collections Supervisor, started on the day that new storage shelves were being installed. The entire collection, both of the museum and the archives, was being rolled out before her eyes. Keeping things organized is a daunting

task, and walking away from the job would have been understandable. Yet Judy viewed this as an opportunity to get to know the collection better. She rolled up her sleeves and dug in.

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***“For the past 35 years, Patrick has been the face of the WLM to ASA and the public. While presidents of the WLM have come and gone, Patrick has been the one constant — guiding, caring and preserving the history of anesthesiology.”***

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Nor is the WLM staff unique at the ASA headquarters. The Annual Meeting could never have been moved from New Orleans to Atlanta last year without outstanding people willing to take a difficult challenge and get the job done. Working quietly, but behind the scenes, they make the work of ASA happen. The *NEWSLETTER* you are reading is not created through the effort of the editor alone, nor of the authors who write for it, but through a small staff of people who edit, proofread and discuss and debate the contents of each issue. The written word can be read — and perceived — in different ways. There are letters to

the editor I would love to print — sharp, biting commentary on American anesthesiology that would spark debate and hopefully promote dialog. Yet, in the final analysis, printing such letters would make them public; thus anyone could quote them out of context and do irreparable harm to the very specialty we are trying to advance.

This election cycle, we are faced with what could be a significant change in the political winds. This could favor

Yet political involvement is an individual matter, and it depends heavily upon being motivated to participate. Back in Minnesota, there was a lively discussion about why someone would not donate, from the old-time “I gave at the office” or “I’m not politically involved” to the real concern that the PAC may have contributed to a candidate not of the contributor’s liking. The point to remember about a PAC is that it is member- and issue-specific; thus the anes-

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***“For each of us, we must make a decision about what being an anesthesiologist and professionalism means. We need to decide what actions are in the best interest of the specialty to preserve and advance our practice.”***

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some who might like to see medicine or the medical specialty of anesthesiology crumble. I will wager that ASA can weather any storm because its members are strong, committed individuals backed by an outstanding staff in Park Ridge and Washington, D.C.; but even the strongest ships can sink. Political involvement, whether as individuals or through political action committees (PACs), helps anesthesiologists participate in an important part of our political system. Elected officials remember who helped them with their campaigns, especially those who contributed early in the election cycle. While many feel that this equates to “buying” votes and ought not to happen in a democracy such as ours, the reality is that elections cost huge sums of money, and individual involvement and PACs, like our own ASAPAC, are parts of this “good government.” Friendship and honest dialog, once access is gained, can push forward the political agenda.

At our recent Minnesota Society of Anesthesiologists Executive Committee meeting, we reviewed our PAC contributions, which were average for a society of our size. The general feeling was that we could and should increase the percentage of Minnesota anesthesiologists who contribute to the PAC. Furthermore the executive committee felt that we ought to make a serious effort to win the “Alabama Cup,” which is given to the group with the highest percentage of members contributing to ASAPAC.

thesthesiology PAC is not overly concerned about the politician’s position on the spotted toad. Rather, health care, and anesthesiology in particular, remains the focus that determines contributions. Thus the PAC makes donations to those candidates who support anesthesiologists’ position on health care issues. It’s that simple.

One very simple description of professionalism is one who cares deeply about and acts to improve the specialty. For the Wood Library-Museum of Anesthesiology, Patrick Sim embodies that ideal of professionalism. He elevates everyone around him, and all who interact with him believe that he acts only in the best interest of the WLM. For each of us, we must make a decision about what being an anesthesiologist and professionalism means. We need to decide what actions are in the best interest of the specialty to preserve and advance our practice. One way to achieve those goals may well be to educate yourself about political involvement and our PAC. It helps ensure that our voices, our concerns and praises are heard in the political arena. Failure to do so may in the end undo all of our advances of the last several decades.

And as for the Alabama cup (with apologies to New York) — go Minnesota!

— D.R.B.

## Diversification of ASA Assets

*Roger A. Moore, M.D., Treasurer*

Since this will be my last “Administrative Update” as the ASA Treasurer, it is my pleasure to commend the members of the Section on Fiscal Affairs for their diligence, hard work and, at times, Herculean efforts on the behalf of the ASA membership. The section members are Thomas B. Bralliar, M.D., Jan Ehrenwerth, M.D., Richard M. Johnston, M.D., Lawrence J. Roy, M.D., James M. West, M.D., John W. Zerwas, M.D., (Assistant Treasurer) and Richard E. Barwacz (ex officio member and ASA Director of Finance).

We are very proud to report that ASA’s assets and reserves are greater than ever before, that no dues increase is recommended for the foreseeable future, that we now have a rational travel and per-diem reimbursement policy and that the proposed budget for 2007 is balanced! Each of these accomplishments is cause for celebration and each required the hard work and input from not only the Section on Fiscal Affairs but also from the conscientious efforts of the ASA administrative staff and the hundreds of ASA volunteers running committees and performing all the work that allows ASA to function so well.

Diversification of ASA assets and reserves remains one of the key unresolved issues that the Section of Fiscal Affairs has been grappling with for the past two years. Over the past 15 years, ASA assets have grown to more than \$50 million, but these assets have been invested in only two vehicles — a single bond fund and a large cap growth fund. The Section on Fiscal Affairs has become increasingly disturbed by fluctuations in ASA assets of more than \$1.5 million from month to month, and approximately two years ago recommended that an independent financial advisor be hired to provide an in-depth evaluation of ASA investments and aid the section in developing an “Investment Policy Statement” (IPS). This statement would define the exact parameters for ASA investments while also serving as a guide for future investing. Initial evaluations pointed out the need to increase investment returns and decrease our risk with an active program of asset allocation and diversification. Based on a test taken by each member of the section as a way of assessing the level of risk that ASA was willing to take in its investments (moderately conservative), an IPS was developed.

The finalized IPS allowed for a significant cash buffer while placing the rest of ASA assets into a 35 percent/65



*Roger A. Moore, M.D.*

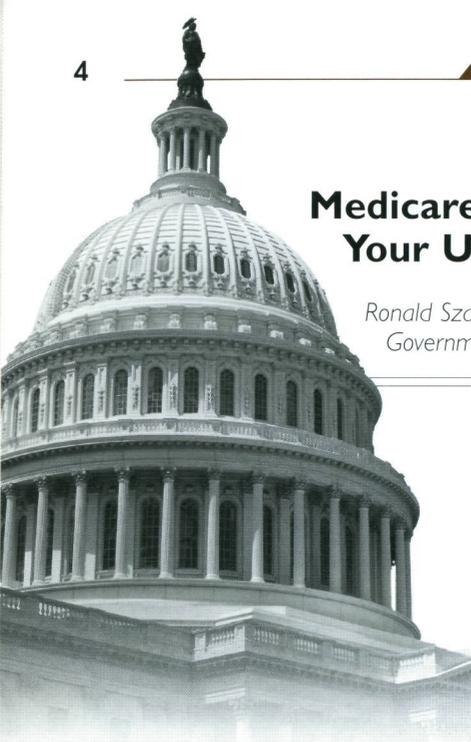
percent split between bonds and equities, respectively. The 65 percent in equities was divided into 26 percent domestic large capitalized equities, 13 percent small capitalized equities, 13 percent international equities, 8 percent real estate investment trusts and 5 percent in emerging markets equities. The independent advisor also helped to educate the section on the value of diversification, the need to be invested in both growth and value funds, the advantages and concerns involved in active and passive management styles and the need for global exposure. The final IPS was a 20-page document that went to the August 2005 ASA Board of Directors and the 2005 House of Delegates, where approval was received without comment. At that point, the real

work for the Section on Fiscal Affairs began.

A request for proposal was sent out to multiple investment firms seeking an investment advisor who would serve to direct and oversee all of ASA assets. The responsibilities were outlined in the IPS and required the advisor to help select the best managers for each asset class, to follow the returns of each manager in comparison with national benchmarks and to provide at least quarterly reports on performance to the Section on Fiscal Affairs. The many responses that were received were narrowed down to three firms which were each interviewed in person by the section at its March 2006 meeting. The unanimous opinion was that Dimeo Schneider and Associates in Chicago was the proper fit for ASA.

Additional telephone conferencing and e-mail exchanges led to a refinement of the investment categories, including division of domestic equities into both value and growth funds and providing wider diversification of the 35-percent bond portion of the assets. In spite of the refinements, all changes still adhered to the originally approved IPS recommendations. The next major project was matching actual asset managers and funds to the various asset classes. In a marathon telephone conference between Dimeo and the members of the Section on Fiscal Affairs, a manager for each of the finalized 12 asset classes was selected. In July 2006, ASA assets began the distribution process into the new diversified portfolio, which will be completed over a six-month period.

*Continued on page 23*



## Medicare Payment Issues Again Take Center Stage — Your Urgent Action Is Needed!

Ronald Szabat, J.D., LL.M., Director  
Governmental Affairs and General Counsel

**W**ith Congress poised to recess for the November elections, much hangs in the balance. The planned September 29th departure is designed to give Republicans maximum time to head home and try to shore up support at the polls against sagging numbers in a record number of close or toss-up races. Democrat prospects for picking up House and Senate seats are indeed high, reflecting polling on multiple issues cutting against President Bush and charges of a “do nothing” Congress.

Whether or not the GOP retains its majority status in one or perhaps even both Houses is very much up for grabs. Left hanging is a possible fix for Medicare physician payment for 2007 in the face of the tyrannical and unfair Sustainable Growth Rate (SGR) formula. Other key issues of great importance to physicians, and anesthesiologists in particular, center on possible pay-for-performance requirements and our all-important effort to restore full Medicare funding to our academic anesthesiology programs.

Even as the legislative days dwindle, other developments are worthy of our active involvement as well.

Recently introduced legislation, H.R. 5955, the “Medicare Access to Rural Anesthesia Medical Care Act of 2006,” by Representative Todd Akin (R-MO) joined by Representative Henry Cuellar (D-TX), would extend the Medicare “rural anesthesia pass-through” to anesthesiologists. In short, this bill, based on ASA policy, would allow rural hospitals to use pass-through funds for the first time to pay anesthesiologists and increase rural access to medical care. In other words, this important bill would allow certain rural hospitals to use Part A “pass through” funds to contract with willing anesthesiologists interested in providing Medicare in rural surgical settings. As has been well-documented in survey and other data, there is an acute shortage of available anesthesia professionals in rural areas as measured against patient demand and surgeon willingness to operate in such areas. The Akin-Cuellar bill represents a much-needed statutory correction to open up these markets to anesthesiologists.

In the unsettled situation with Congress, there is the potential for significant relief for physicians on these issues of urgent importance. But, at the same time, there is a high probability for the status quo, leaving physicians with payment cuts in 2007 because of the SGR formula and academic programs continuing to hemorrhage from shortfalls in Medicare and private-pay funding.

For its part, with election result uncertainty running high, all that can be expected from Congress beyond September is a one-week “lame duck” session in mid-November, after the general elections and before Thanks-

giving. Beyond that, it’s anyone’s guess what could transpire in 2006 and whether or not Congress will work in December.

What can you do right now to help us help you? Plenty. On ASA’s Web site right now are homepage links to Congress on these critical issues. Responses — meaning contacts to Capitol Hill from ASA members — to date have been strong, but can our professional association of 40,000 physician members really say it is doing all that it needs to be doing when the majority of our members have not yet responded? We need to flood Congress with e-mails and calls as we run up to the election, sending a strong message that relief is urgently needed.

The link is simple: <[www.ASAhq.org/government.htm](http://www.ASAhq.org/government.htm)>.

The tasks are simple and self directing, too. All you have to do is respond now as you are reading this. It will take less than five minutes of your time, so please think of it as an investment in your future. As physicians paid in large measure based on time, the point should be obvious.

First, send a loud and clear message on the looming SGR cuts. They are simply unacceptable, and Congress must act this year, the sooner, the better. Added cuts based on a proposed rule from the Centers for Medicare & Medicaid Services will only increase anesthesiology misery. Access our Web site now to compose your letter to Congress: <[www.ASAhq.org/news/news071306.htm](http://www.ASAhq.org/news/news071306.htm)>.

Second, and *first* for every academic anesthesiologist, ensure that your

*Continued on page 21*



# Anesthesia's Treasures: See Them in Chicago



Lydia A. Conlay, M.D., Ph.D., Vice-President and Trustee  
Wood Library-Museum of Anesthesiology Board of Trustees

**W**e live in an extraordinary time in anesthesiology. Just within the past year, we have celebrated the 100th anniversary of the founding of our national organization, ASA, and served as the only specialty (to my knowledge) to aid its trainees in distress following Hurricane Katrina. This year, it's time for celebration again — as the ASA's Annual Meeting is held in our "Headquarters City," Chicago!

As many of you know, the feature articles for the September issue of the *ASA NEWSLETTER* are compiled by individuals from the Wood Library-Museum of Anesthesiology (WLM). This issue highlights many of the WLM's "Treasures," some old, some new, to encourage members to visit the WLM. (Please note that it was tactfully pointed out to me that in doing a "Treasures" issue, it was particularly important to avoid any association between anesthesiologists and pirates. So considered.)

One of the newer "Treasures" of the WLM is the prototype of the Boston Anesthesia System (BAS), one of the first medical devices of any kind to use a microprocessor (page 16). Richard J. Kitz, M.D., Professor and Chairman Emeritus of the Department of Anesthesia, Massachusetts General Hospital of Harvard, has written a marvelous article describing the BAS and the events leading up to its design. Of special interest is the description of early efforts by Emanuel M. Papper, M.D., Ph.D., and Robert D. Dripps, M.D., who testified before Congress, labeling anesthesia as a public health hazard. This extraordinary contribution ultimately influenced the National Institutes of Health to provide funding for anesthesiology research and training and thus played a major role in the development of anesthesiology as we know it today. The BAS has been graciously donated to the WLM and can be viewed in the museum in Park Ridge.

In addition to the "Treasures," two other items from the

**Tours of the WLM are scheduled for Sunday and Tuesday, October 15 and 17, during the ASA Annual Meeting in Chicago. To sign up, go to the Annual Meeting Web site and click on "Social Activities."**

WLM seem newsworthy. First, George S. Bause, M.D., Honorary Curator, and Patrick P. Sim, M.L.S., WLM Librarian, describe a recent renovation of the WLM's Rare Book Room (page 14). Under the careful and deliberate attentions of

*"So please join us in Chicago, and by all means, take the opportunity to visit one of the finest (if not the finest) museums and libraries of anesthesiology in the world."*

Charles C. Tandy, M.D., past president and trustee of the WLM and rare book aficionado, ASA has assembled a collection of old and rare medical volumes relating to anesthesiology that are unrivaled throughout the world. (Dr. Tandy also is responsible for the hiring of Librarian Patrick Sim.) Mold is the bane of a book collector's existence. If conditions are anything short of perfect, molds will seasonally "blossom" and invade neighboring naive volumes. The article by Dr. Bause and Mr. Sim details the renovation that is designed to bring the WLM's Rare Book Room up to or within industry standards and to protect the priceless collection.

Perhaps the newest "happening" at the WLM is the formation of an Art Committee. The WLM has a number of



Lydia A. Conlay, M.D., Ph.D., is Professor and Chair, Baylor College of Medicine, Houston, Texas.



Doris K. Cope, M.D., Kathryn E. McGoldrick, M.D., and Lydia A. Conlay, M.D., Ph.D., assist WLM Librarian Patrick Sim in positioning art. Other members of the WLM's new Art Committee include Elliott V. Miller, M.D., and Mark E. Schroeder, M.D. (not shown). Photo by Jonathan C. Berman, M.D.

pieces of art, but most are in storage and not on display. WLM President William D. Hammonds, M.D., has appointed a committee whose first charge is to display these pieces for ASA, with the goal of enhancing the overall aesthetic appeal of the gallery. Future efforts also will address the storing and preservation of the works as well as any potential acquisitions that might seem appropriate.

So please join us in Chicago, and by all means, take the opportunity to visit one of the finest (if not the finest) museums and libraries of anesthesiology in the world. The WLM is located at ASA headquarters, 520 N. Northwest Highway in Park Ridge. (Park Ridge also is the birthplace of Sen. Hillary Clinton). It's 20 minutes by cab from O'Hare Airport, or 30 minutes by rail (CTA/Metra) from downtown, and is open from 9 a.m. to 4:45 p.m. Monday through Friday.

You also can sign up for a social tour during ASA's Annual Meeting on Sunday afternoon, October 15, or Tues-

day morning, October 17. The tour provides bus transportation from the Chicago Marriott Downtown (Rush Street entrance) with transportation back to McCormick Place. An audio guide is available at the WLM, but you may wish to bring this edition of the *NEWSLETTER* with you to Chicago. For obvious reasons, some portions of its contents may not be available in other venues. For those with a special interest in rare books, Dr. Tandy will serve as docent on Sunday afternoon's tour. And special thanks to Dr. Bause, WLM Collections Supervisor Judith Robins and WLM Librarian Patrick Sim for all their help in gathering the information for this issue. It was a great job and an absolute pleasure. We sincerely hope that you will enjoy the "Treasures" of the WLM as well.

See ya' there!

**ASA**

# Treasures of the WLM

George S. Bause, M.D., M.P.H., WLM Honorary Curator  
Lydia A. Conlay, M.D., Ph.D., WLM Vice-President and Trustee  
Judith Robins, C.A., WLM Collections Supervisor



## Charrière Inhaler

Maison Charrière, a leading surgical instrument maker in Paris, patented his modification of Morton's Inhaler in January 1847. By September of that year, Charrière had modified the design to the WLM's version, seen here. Charrière also standardized the "French" designation for tube sizes.



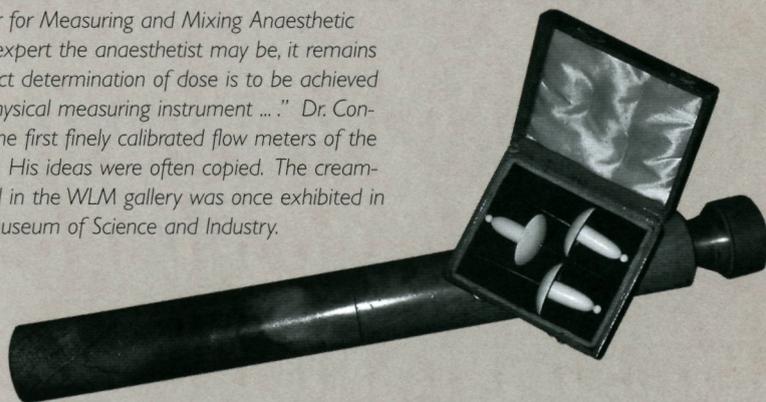
## Warren Medicine Chest

This handsome medicine chest belonged to John Collins Warren, a prominent Boston surgeon and one-time Dean of Harvard Medical School. Dr. Warren encouraged the first public demonstrations of surgical anesthesia at the Massachusetts General Hospital and was, in many ways, the "hero" of the story. In 1845, he invited Horace Wells to demonstrate nitrous oxide anesthesia. But the demonstration was not satisfactory and was derided to the cries of "Bah, Humbug!"

Yet Dr. Warren persisted. In 1846, he invited William T.G. Morton to demonstrate ether, and the rest is history.

## Connell Anesthetometer

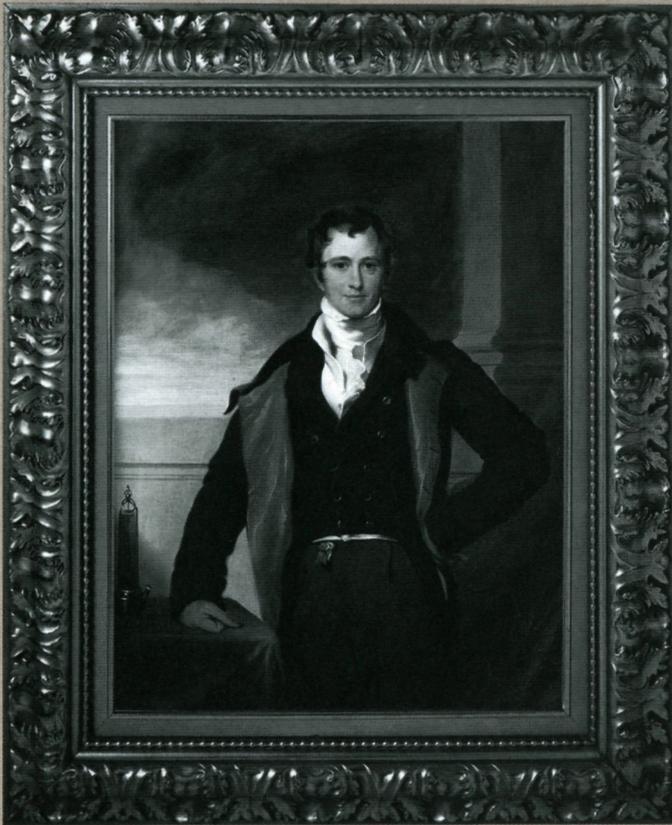
In August 1913, Karl Connell described his "Anesthetometer for Measuring and Mixing Anaesthetic and Other Vapors and Gases." He stated that "... however expert the anaesthetist may be, it remains true that exact determination of dose is to be achieved only by a physical measuring instrument ...". Dr. Connell made the first finely calibrated flow meters of the piston type. His ideas were often copied. The cream-white model in the WLM gallery was once exhibited in Chicago's Museum of Science and Industry.



## Churchill Acu-Needles and Laennec Stethoscope

A tip from WLM's past president Elliott V. Miller, M.D., prompted the successful curatorial bid landing this prototype 1819 Laennec stethoscope from a New York antiques dealer. France's René Théophile Hyacinthe Laennec (1781-1826) had watched children listening to the ends of long sticks as these were tapped by nails. Intrigued, Laennec abandoned his ear-on-ladies'-chests routine in favor of the stethoscope, which he invented to preserve both feminine modesty and his professional distance. Just two years after Laennec's prototype above, in 1821, James Morss Churchill published the earliest English monograph on acupuncture: "A Treatise on Acupuncture." Modified from Georgian sewing needles, all three of Churchill's needles above feature ivory fingerholds.





### ◀ Davy by Lawrence

Familiar with Thomas Gainsborough's "Blue Boy" and its painted counterpart, the young girl, "Pinkie"? Well, Pinkie's painter, royal artist Sir Thomas Lawrence (1769-1830), painted this oil to honor Sir Humphry Davy (1778-1829) in 1821, the same year as J.M. Churchill published "Acupuncture." In 1799, Davy had noted that nitrous oxide (or "laughing gas") had relieved his painful teeth. Below the painted horizon, note the expanse of earthly elements, six of which Davy isolated — potassium, calcium, barium, boron, strontium and, of course, sodium. Search the painting for the Davy lamp that he invented to prevent gas explosions in mines. Ironically, as a result of mining longer and safer with their Davy lamps, many of Davy's Pennsylvania relatives, like John Davy Richards, died from miner's lung. The one-quarter size oil painting was donated to the WLM in honor of Richards' great-great-grandsons, Colin Davy and Evan Blake Bause. The life-sized version currently resides at the Royal Society in London.



### Morton Inhaler Replica and The Red Barn by Vandam

Chairing anesthesia at Boston's Peter Bent Brigham Hospital from 1954-79, Leroy David Vandam, M.D. (1914-2004) painted in watercolor "The Red Barn" (©1994, WLM). The barn depicted now occupies the worksite where the father of young William Thomas Green Morton (1819-1868) sold farm supplies in 1827. Little did the Mortons know that on October 16, 1846, dentist W.T.G. Morton would conduct the first successful public demonstration of ether for surgical anesthesia at the Massachusetts General Hospital (MGH). Pictured on the pedestal is an exact version of Morton's original "brass and glass" inhaler, as replicated by MGH's Department of Biomedical Engineering. Concealing his ether as "Letheon"— and patenting its use — led to Morton's censure, financial ruin and early death. As Dr. Vandam himself discovered at the New York hospital in which Morton died, there were two physicians who had, ironically, also witnessed his 1846 ether demonstration, nearly 22 years before.





#### ◀ Hooper Inhaler and Robinson by Richardson

On November 28, 1846, Boston's Jacob Bigelow wrote his friend, American botanist Francis Boott, (1792-1863) about "the inhalation of the vapour of ether to the point of intoxication." Bigelow included his son's Boston Daily Advertiser article detailing the "two-necked glass globe" that W.T.G. Morton had used. Boott's family witnessed their London neighbor, dentist James Robinson (1813-1861), extract Miss Lonsdale's molar under England's first ether anesthetic on December 19, 1846. Nine days later, Robinson extracted teeth with assistance from his third ether inhaler (one later owned by Sir Frederic W. Hewitt). This third version was modified from a Nooth Soda Water Apparatus by William Hooper. Above the Hooper Inhaler, left, Richardson's 1849 oil portrays the world's first author of a textbook on anesthetics: James Robinson, D.D.S. (Hon.).



#### ▶ Long by Rhind

Georgia's Crawford Williamson Long, M.D. (1815-1878) first etherized a patient for surgery on March 30, 1842. A century later, Johns Hopkins' Hugh Hampton Young, M.D. (1870-1945) rekindled academic interest in Long as a claimant to the discovery of anesthesia. Once belonging to Dr. Young, this plaster maquette is one of three sculpted by artist J.M. Rhind in preparation for the larger marble version installed in Statuary Hall of the U.S. Capitol in 1926. Since 1933 the anniversary of Long's 1842 ether anesthetic has been celebrated as "Doctors Day" each March 30. The nation honored him on a U.S. postage stamp in 1940.



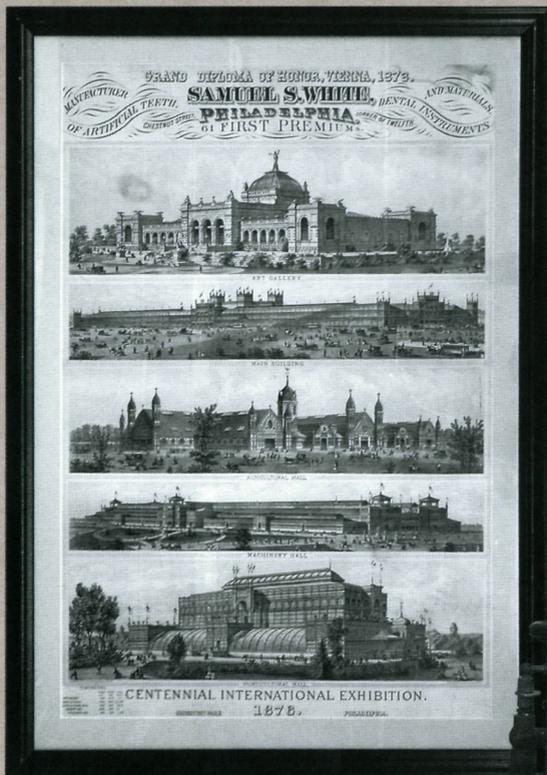
#### ▼ Defending Morton, Wells and Long

These three items were selected from the WLM's K. Garth Huston, Sr. Rare Book Room. As the "ether controversy" raged, New Englanders fought each other's as well as Southerners' claims of primacy in discovering anesthesia. The middle publication is

Henry Wilson's 1863 document that supports Boston's W.T.G. Morton as the first to discover anesthesia. The bottom item is a carefully housed copy of G.Q. Colton's 1886 defense of Hartford dentist Horace

Wells as the premiere anesthetist. The top item is a copy of Congress' 1926 Statuary Hall Proceedings, saluting Crawford W. Long, M.D., as Georgia's answer to "Who was first?"



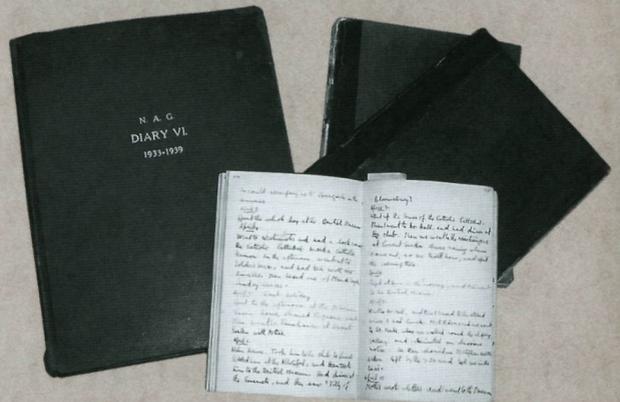


### SS White Lithograph and Universal

The first major manufacturer of anesthesia machines, Samuel Stockton White, D.D.S. (1822-1879), founded S.S. White in 1844, just two years before Morton's ether demonstration. By 1859, S.S. White's Dental News Letter had transformed into The Dental Cosmos, and his company was dominating the dental business world. The lithograph above celebrates S.S. White's recognition in America's first "World's Fair," the 1876 Centennial Exposition in White's own Philadelphia. The machine to the right is the S.S. White Universal Apparatus, donated to the WLM in honor of WLM President William D. Hammonds, M.D.

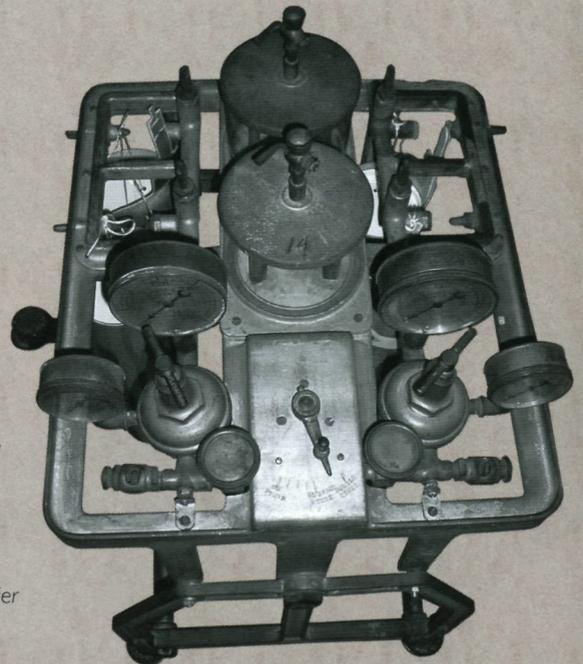
### Cotton-Boothby Apparatus

Dr. Frederick Cotton (1869-1938) and Walter Boothby (1880-1953) revolutionized anesthesia by publishing in 1912 their use of a "bubble bottle" for sight measurement of gas flows. Their concept was adopted by Gwathmey in the U.S. and by Marshall and Boyle in the U.K. Finally making flowrates and gas proportioning possible, this original Cotton-Boothby Apparatus was given to WLM Founder Paul M. Wood, M.D., by Dr. Cotton. His colleague Boothby is best remembered for his 1938 invention of the Boothby-Lovelace-Bulbulian or "B-L-B" oxygen mask. He received the Collier Trophy for his research on supplying oxygen to high-altitude aviators.



### Gillespie Diaries

Tutored in Syria in the early 1910s by the future "Lawrence of Arabia," Noel Alexander Gillespie (1904-1955) in turn tutored the missionary Albert Schweitzer, M.D., in the English language for several months in 1924. Returning from Africa to his studies at Oxford, Dr. Gillespie completed his degree work for his B.A., M.A., B.M., B.Ch., and D.M. He eventually followed Visiting Professor Ralph M. Waters, M.D., back to the University of Wisconsin at Madison. Author of *Endotracheal Anaesthesia* and inventor of the Shadwell laryngoscope, Dr. Gillespie was dubbed an "ambassador of international anaesthetics" by Sir Robert Macintosh.



### ▼ Monument to Ether by Oehmig

The bitter "ether controversy" pitted W.T.G. Morton against his mentor and co-patentee Charles Jackson (1805-1880). After the granite "Monument to Ether" was unveiled in 1868 on the Boston Public Gardens, Oliver Wendell Holmes (1805-1894) dubbed it a granite "monument to ether — or either" of Morton or Jackson. After painting "Monument to Ether, Public Gardens" in 1992, artist Keith S. Oehmig of Brunswick, Maine, observed that the "ordered, defined structure of the monument and footpaths contrast with the soft, amorphous roses and trees of the Garden."



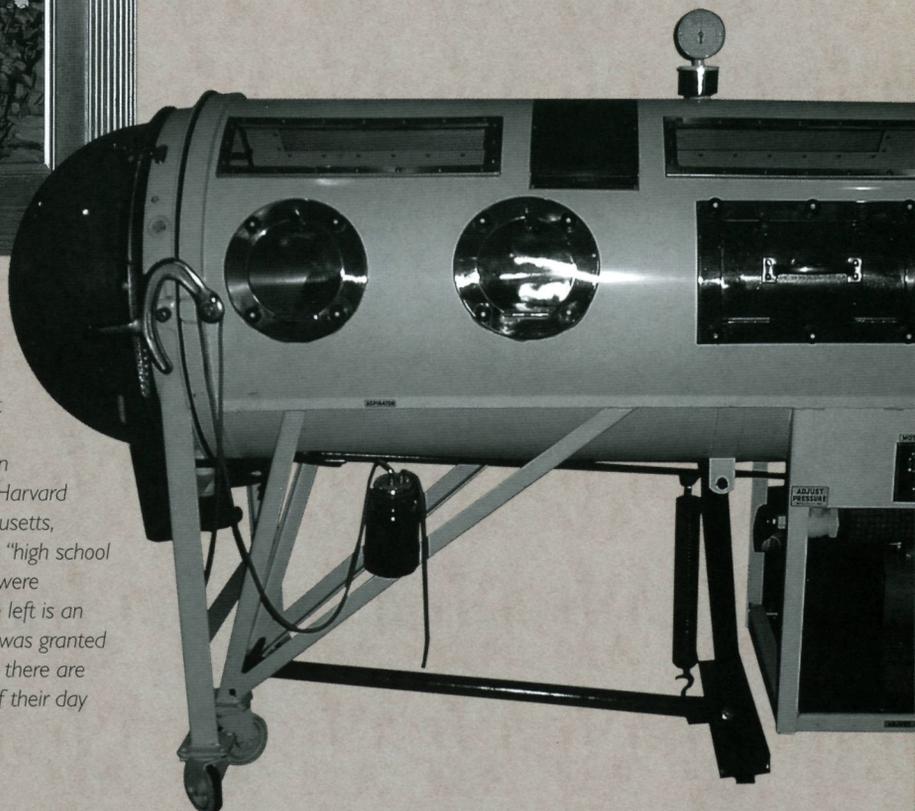
### Emerson "Iron Lung" Respirator ►

A self-trained mechanical genius, John Haven "Jack" Emerson (1906-1997), designed the first efficient, economical "iron lung" for mechanically ventilating patients. The severe polio epidemic in 1931 prompted Emerson's initial work. When Harvard University sued Emerson's Cambridge, Massachusetts, company for patent infringement, the self-styled "high school dropout" demonstrated that Harvard's patents were derivative and, therefore, invalid. Pictured on the left is an "Emerson Respirator," the last patent for which was granted in 1947. So reliable are Emerson's devices that there are polio victims even now who spend all or parts of their day inside an Emerson "Iron Lung."



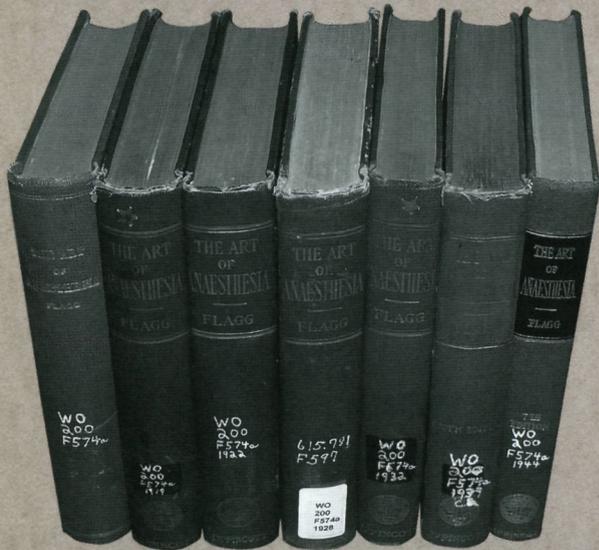
### ▲ Pender Lemon and Living History Collection

Stanford's first Emeritus Clinical Professor of Anesthesiology, Dr. John William Pender (1912-2001) practiced medicine for 48 years. As "Bill" to most Minnesotans (at Mayo Clinic) and "John" to most Californians (at Stanford), Dr. Pender was an "anesthesiologist's anesthesiologist" to all. His 1943 "Pender Lemon" eased ether's use in awkward neurosurgical positions. Pender presented his prized gold-plated Pender Lemon (above) to the WLM. A greater gift may have been his collaboration with Dr. John Leahy on the oral history of our specialty. Primarily interviews of anesthesiologists by their peers, the John W. Pender Collection of the Living History of Anesthesiology, with 182 videotaped interviews of anesthesiology "greats," is housed in the third-floor Robert D. Dripps Room of the WLM.



### Lüer Chloroform Mask, ca. 1848 ▶

Made by the firm of A. Lüer, Paris. This is one of the earliest all-metal masks. The soft rim, made of stuffed kidskin, is in exceptional condition. The design was described by Bouisson in 1850. Bouisson's *Treatise on the Theory and Practice of Surgical Anesthesia* is one of the treasures of the rare book collection.



### ◀ Seven Editions of Flagg's Art of Anaesthesia

"The proper administration of an anaesthetic is more than a mere mechanical performance, it is an art." So cautioned Paluel Joseph Flagg, M.D. (1886-1970). Housing the world's largest library devoted to anaesthesiology, the WLM boasts all seven editions of Dr. Flagg's classic work, *The Art of Anaesthesia*. Among his many accomplishments, Dr. Flagg is famous for founding the philanthropic Catholic Medical Mission Board, for aiding the development of the heart-lung bypass machine (by facilitating Lindbergh's visit with Carrel) and for inventing the Flagg can, which Macintosh modified for wartime use before developing his EMO ether inhaler.

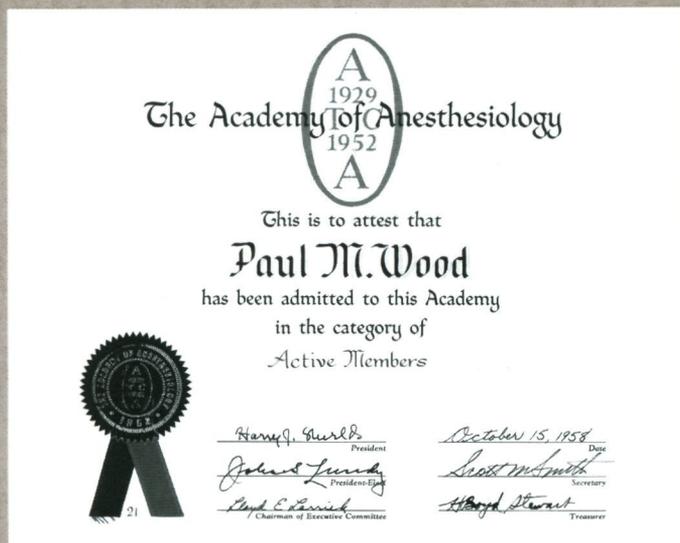
### Professors Macintosh and Jenkins ▶

When "England's Henry Ford" — William Morris (1877-1963) of Morris Garages, or "MG," fame — wanted to endow an Oxford professorship for Anaesthetics, many scoffed, "Any fool can give an Anaesthetic." Then Morris Lord Nuffield replied, "Yes, that's what worries me!" His first Nuffield Professor, Sir Robert R. Macintosh (1897-1989), co-designed for the laryngoscope his curved "Macintosh" blade, the world's favorite device for placing breathing tubes. A Fellow of the Royal College of Surgeons, he passed his F.R.C.S. academic robe from "Mac" to "Mc," that is, to his Dallas friend, McDermott Professor M.T. "Pepper" Jenkins, M.D. (1917-1994). The latter donated Macintosh's gown to the WLM. As Macintosh had, Jenkins also co-designed a laryngoscope. Jenkins, however, is best known for trying to resuscitate the mortally wounded U.S. President John F. Kennedy in 1963. A year after his 1994 passing, Jenkins was memorialized in bronze by surgeon-sculptor Ben Wilson.



### Wood's Academy of Anesthesiology Certificate

At the 1952 founding of the Academy of Anesthesiology, Paul M. Wood, M.D., was elected "Honorary Second Vice-President." Six years later, at its 1958 meeting, the Academy 1) voted to expand from 50 to 60 members, 2) requested Dr. Wood's services as Academy Historian, and 3) certified him as an Active Member (left). Dr. Wood's certificate was signed by the 1952 Ohio Society of Anesthesiologists President Lloyd E. Larrick, M.D., the 1947 Canadian Anaesthetists Society President Harry J. Shields, M.D., and the 1946, 1949 and 1956 ASA Presidents John S. Lundy, M.D., H. Boyd Stewart, M.D., and Scott M. Smith, M.D., respectively. Dr. Wood died less than five years after receiving this certificate.



### Wood by Bachrach

In spite of his disabling cardiac condition, Dr. Wood persevered in both practicing anesthesia and collecting papers, apparatus and pharmaceuticals for ASA. The quintessential pack-rat, Dr. Wood hoarded anything he could find relating to anesthesia. His fondness for early pharmaceuticals and antique apparatus overwhelmed his home garage, an E.R. Squibb storage area and even Richard von Foregger's boat house. Sadly, Dr. Wood died just months before the ASA's 1963 grand opening of the two-story Wood Library-Museum of Anesthesiology in Park Ridge, Illinois. Painted at the Cambridge studio founded by Fabian Bachrach, this oil portrait memorializes Paul Meyer Wood, M.D. Moving to ASA's new three-story building in 1992, Dr. Wood's namesake, the WLM, now houses the world's largest anesthesia library and the largest anesthesia museum in the New World. Additional legends regarding Dr. Wood may be shared by your docent at the WLM should you take one of the tours of the facility during the Annual Meeting.



## Breaking the Mold: The WLM's Rare Book Room Re-do

George S. Bause, M.D., M.P.H., Honorary Curator

Patrick P. Sim, M.L.S., Librarian  
Wood Library-Museum of Anesthesiology



Craning the 2.5-ton air conditioner onto the HVAC penetration through the ASA headquarters building's roof.

**W**e and our possessions play host to tiny insects and to legions of molds and mold spores. As a consequence, those of us who collect antiquarian books must constantly guard against the spread of such pests among rare tomes. The K. Garth Huston, Sr., Rare Book Room of the ASA's Wood Library-Museum of Anesthesiology (WLM) is no exception.

Despite earlier cleanups and the freeze-drying of mold-affected volumes, the WLM experienced a second major mold infiltration of its third-floor Rare Book Room. Flying in from Dallas, Texas, WLM Trustee Charles C. Tandy, M.D., consulted emergently with an antiquarian book conservator. Their short-term strategies focused on ionizing and vacuum cleaning remedies. First, the collection was cleaned with a high-power vacuum system. Then the Rare Book Room's circulating air was purified and sanitized by portable "radiant catalytic ionization technology."

Subsequently — in concert with its benevolent landlord, ASA — the WLM moved aggressively to renovate the Rare Book Room as part of a long-term solution to repel attacks from molds and other threats on the priceless collection. In order to remove current molds and prevent future infestations, the WLM Trustees opted for an independent, filtered air supply of the Rare Book Room (now standard in the industry) as well as for tight control of room temperature and relative humidity. As the final part of general clean-up, the existing carpeting was replaced with vinyl composition tile flooring.

Mimicking the laminar flow of biohazard "isolation rooms" and the particle-free "clean rooms" of the computer age, the Rare Book Room's system for heating-ventilation-air conditioning (HVAC) has now penetrated the roof of the hallway outside in order to capture fresh air to mildly oversupply the volume of air exchanged into the Rare Book Room. To minimize mold's access to the rare books' environment, both fresh outside and recycled air are now fil-



George S. Bause, M.D., M.P.H., is Clinical Associate Professor, Case Western Reserve University, Cleveland, Ohio.



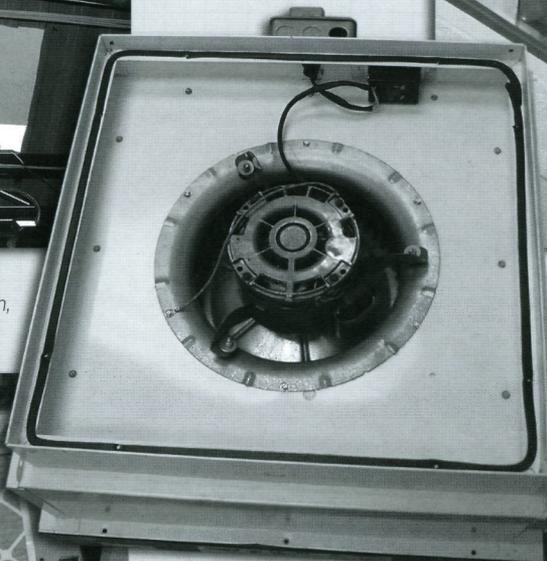
▲ Looking up through the hallway ceiling and out through the roof penetration, awaiting the 2.5-ton air conditioner.



▲ One of three smoke dampers for closing ductwork during a fire.



▲ Jacking the dehumidifier up into the hallway ceiling.



▲ One of two HEPA fans placed into the Rare Book Room ceiling.



▲ Sealed lighting fixtures and heavy ceiling tiles in grommeted gridwork.

tered by two high-efficiency particulate air (HEPA) filters designed to remove 99.7 percent of measured particulates.

Consider an analogy. Anesthesiologists are often amused by the classic preoperative consultations of our cardiology colleagues with respect to patients' blood pressures and heart rates: "Not too high, not too low; not too fast, not too slow." Experts on minimizing mold growth have similar environmental expectations regarding temperature and relative humidity: "Not too high, not too low; not too wet, not too dry." Mold and insects thrive in temperatures greater than 75 degrees F. High temperatures are chilled by a large air conditioner mounted on the rooftop, which discourages mold growth by minimizing pockets of stagnant air. Proper placement of ductwork openings further optimizes air flow and limits the growth of mold.

As long as they exceed freezing, cool temperatures are typically preferred in order to fight mold. Wide fluxes in temperature actually encourage infestation. Heat is supplied by an electrical heater rather than by the previously used hot water system. Overall the thermal systems for the



Steam humidifier that resides in a room adjoining the Rare Book Room.

*Continued on page 35*

# World's First Computer-Controlled Anesthesia Machine Donated to WLM

Richard J. Kitz, M.D.

Readers of the *ASA NEWSLETTER* are now using a generation of anesthesia machines with so many functions and features that they are no longer called “machines” but rather “workstations” or “systems.” The old-timers may wish for the return of simpler days; yet the demand for safety and functionality in modern anesthesia requires greater sophistication of systems to allow integration of variable ventilator modes, lower gas flows with safety, controllable anesthetic delivery, features for preventing various forms of user error, alarms and self-checking. This did not all emerge overnight, but evolved over several decades.

Many of the original concepts were initially introduced in the Boston Anesthesia System (BAS), a prototype of the first fully electronic, integrated, microprocessor-controlled anesthesia workstation. First publicly displayed in a scientific exhibit at the ASA 1976 Annual Meeting and described in *Anesthesiology* in 1978,<sup>1</sup> the BAS was one of the first medical devices of any kind to utilize a microprocessor.

As we celebrate the recent donation of the BAS to the Wood Library-Museum of Anesthesiology (WLM), we will describe a short history of how it was conceived, designed and financed and how the ideas were disseminated to industry.

## In the Beginning

The development of the BAS emerged from a collaboration of engineers headed by Jeffrey B. Cooper, Ph.D., with insightful clinicians in the Anesthesia Bioengineering Unit (ABU) of the Department of Anesthesia and Critical Care at the Massachusetts General Hospital in the 1970s. This was



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a time when anesthesia machines were simple plumbing devices with a few flow meters, typically one or two metered vaporizers such as a Copper Kettle, a calibrated vaporizer for halothane and perhaps one for ethrane as well.

**“ ... they were the first in our specialty, perhaps in medicine, to apply the techniques of human-factors engineering into the design, fabrication and integration of all the elements of a medical device.”**

The only common monitor in use was the electrocardiogram; clinicians who wished to monitor arterial blood pressure were required to make special advance arrangements. Blood pressure was measured manually since this was before the time of the automated noninvasive technique.

Despite the existence of the earliest form of safety features in those machines, including color-coded gas tanks, the pin-indexed system and an oxygen-pressure fail-safe mechanism that offered some safeguard against accidental delivery of 100-percent nitrous oxide, there was little else that afforded protection against the many device and human errors that were still possible.

## Safety Changes

E. M. Papper, M.D., Ph.D. (1915-2002), Robert D. Dripps, M.D. (1911-1973) and other leaders in anesthesiology recognized this condition. They characterized anesthesia as a public health hazard and, in 1964-65, so testified before Congressional Committees chaired by Lister Hill in the Senate and John Fogarty in the House. The influential medical research philanthropist, Mary Lasker, supported their efforts. They were successful in securing enhanced federal National Institutes of Health (NIH) funding for anesthesiology research and training.

The National Institutes of General Medical Sciences (NIGMS) convened a task force to consider those areas of anesthesia practice that could be improved with targeted research funds. I was tasked to discuss the inadequacies of anesthetic equipment as I was then convinced that equipment failure was largely responsible for anesthetic morbidity and mortality.

At that time, the typical anesthesia machine was a plumbing appliance, the basic architecture of which had not

changed in decades. It provided a scaffold for hanging stand-alone devices that had no common readout, did not communicate with one another and had different alarms and failure modes. The machines were bulky and top-heavy, and the small wheels made them difficult to move and easy to tip over. Dr. Cooper later characterized these machines as “accidents waiting to happen.”<sup>2</sup>

In part for these reasons, I recruited engineers to the Massachusetts General Hospital in 1970 to lead the ABU, which was supported by one of the new NIH-funded Anesthesia Research Centers. My intent was to have engineers available to support the efforts of clinician-scientists in their quest to unravel the mysteries of anesthesia, its mechanisms and related physiology. The ABU team also launched projects completely of its own conception, including the BAS.

### Clinician/Engineer Collaboration

In 1972, Dr. Cooper, a biomedical engineer, joined the ABU, which consisted of several engineers and, most importantly, Ronald S. Newbower, Ph.D., a Massachusetts Institute of Technology (MIT)/Harvard-trained solid-state physicist. Edwin D. Trautman, then an undergraduate at MIT, and W. Reynolds (Renny) Maier, M.D., a clinical-research fellow at Harvard and MGH, also were to be key players. Dr. Maier gave the engineers a perceptive view into the world of anesthesia, recruiting them as intraoperative observer members of the anesthesia care team. On-site potential and real-time problems were identified, possible efficiencies discussed, ideas germinated and solutions considered.

This kind of clinician and engineer collaboration is critical to multiple novel innovations in medical technology.

The engineering-clinician team, led by Dr. Cooper, conceived the many technology solutions that were to be embodied in the BAS. In so doing, they were the first in our specialty, perhaps in medicine, to apply the techniques of human-factors engineering into the design, fabrication and integration of all the elements of a medical device.

### Hard Work Pays Off

Among the team’s initial concerns were ways to secure project funding since the Anesthesia Research Center provided only seed monies. As so often happens unexpectedly, Mr. Trautman, as an MIT student attending a campus engineering dinner, was seated next to a philanthropist, Julius Rippel of the Fannie E. Rippel Foundation. While it was not in his foundation’s charter, Mr. Rippel was persuaded by Mr. Trautman’s presentation to provide \$4,000 to construct a demonstration of microprocessor functionality in a medical device.

Under Dr. Cooper’s leadership, the ABU team submitted an application to NIH seeking funds for “A New Anesthesia Delivery System.” This was not the sort of research funded by NIGMS; but, in part due to the foresight and eloquent comments by Robert Epstein, M.D., the study section was convinced of the worthiness of the effort and provided funds for three years. The Cooper team finished the project on time and on budget, introducing the BAS to the anesthesiology community at the ASA 1976 Annual Meeting and, in the process, won a prize in the Scientific Exhibit category.

### Innovative Design

The BAS demonstrates many innovations in anesthesia design. At its heart lies one of the earliest microprocessors,

### ASA Award-Winning BAS and Team, 1976

*The Boston Anesthesia System and its team of engineers at the 1976 Annual Meeting when it was awarded a prize in the Scientific Exhibit category. From left to right: Josh Talkoff, Jeffrey B. Cooper, Ph.D., Ronald S. Newbower, Ph.D., and Jeff W. Moore. Not shown are Edwin D. Trautman and W. Reynolds “Renny” Maier, M.D.*





*This prototype of the Boston Anesthesia System was recently graciously donated to the Wood Library-Museum of Anesthesiology by Jeffrey B. Cooper, Ph.D., and his colleagues.*

an 8-bit Intel 8080, which at that time cost \$360. The idea was Ed Trautman's, who had access, through his MIT window, to the cutting-edge of computer technology. The microprocessor enabled computer control of new digital effectors. The gases were metered by a digital device consisting of a series of individual fixed-flow valves (Dr. Cooper's chemical engineering background proved essential here). For the liquid anesthetics, a fuel injector, acquired from the local Volkswagen dealer, was another innovation. While it was necessary to substitute O-rings that would withstand the corrosive effect of halocarbons and also modify the injector for lower flows, it worked well. The liquid anesthetics were held in agent-specific, magnetically keyed and pre-filled containers that were to be disposable. The system was designed to accept only one container at a time, nullifying the possibility of using an unselected agent.

Programming was critical to the integration of these devices and the safety features that they would enable. Mr. Trautman, joined by Jeff W. Moore, another MIT engineer, created the primary code using very rudimentary tools and working under severe constraints of computing power and memory that were inherent in the early 8080 chips. Perhaps even more important was the conception of the safety features and their integration. Dr. Maier and Dr. Newbower were the key contributors here. Their efforts included not only control of the oxygen/nitrous oxide ratio and alarms for pressure integrated into the breathing system but also the oxygen concentration and circuit pressure measurement with automatic calibration.

Dr. Newbower's artistic and human-design insights were key to the layout of an electronic message board that displayed all sensor information in a clear and simple format.

Audible alarms with programmable limits, verbal and printed warnings that appeared on the message board, and system take-over capabilities for uncorrected faults were all features. Electronic and plasma bar graphs were used to display the gas flows and anesthetic concentrations. At the time, designing and integrating such capabilities by the use of human-factors engineering principles were unknown in medical devices and eventually may well have proved critical to the reduction of human error in all of medicine.

While the BAS was well praised, it was not easy to transfer the technology to common use. Harvard University did not then allow patent applications for medical inventions, which provided a challenging barrier for any manufacturer to risk the investment that would be needed. Dr. Cooper and the team published the concepts,<sup>1</sup> but they also took the unusual step of holding a workshop for all manufacturers who might be interested in learning the details of the design, which they shared openly. Attempts to work with two different manufacturers never reached fruition. The anesthesia market was perhaps not yet ready for such a radical departure. Many features and concepts of integrated functions did, however, work their way into the designs of newer generations of machines. It was not until the late 1980s that fully electronic machines began to appear. Now quite commonplace, they are rapidly replacing the traditional designs.

The BAS was used in an animal laboratory but never on humans. It was designed to explore novel engineering concepts integrated into a unified system capable of better aiding the clinician by reducing the likelihood of human and machine error in caring for anesthetized patients. That is still its most laudable achievement.

The Department of Anesthesiology and Critical Care of the Massachusetts General Hospital and Harvard Medical School is most pleased that the WLM has invited the Boston Anesthesia System to repose among their superb collection of novel contributions to our specialty. We are happy to include the associated laboratory notebooks and original correspondence in the hope that others may find them of interest.

*Thanks go to Jeffrey B. Cooper, Ph.D., who provided historical information for this article.*

#### References:

1. Cooper JB, Newbower RS, Moore JW, Trautman ED. A new anesthesia delivery system. *Anesthesiology*. 1978; 49:310-318 (with editorial).
2. Cooper JB, Newbower RS. The anesthesia machine – An accident waiting to happen. In: Pickett M, Triggs TJ, editors. *Human Factors in Health Care*. Lexington, MA: DC Heath & Co; 1975:345-358.



# Tuesdays at the White House: My Second Semester as a Congressional Fellow

William G. Horton, M.D.  
Lansdale Public Policy Fellow

This is the second report from Dr. Horton regarding the Lansdale Public Policy Fellowship. His first report appeared in the August 2006 *NEWSLETTER*.

**A**s the second session of the 109th Congress began in January 2006, the congressional approval rating had fallen below 30 percent, and the President's approval hovered in the low 40s. An unpopular war in Iraq continued with daily casualties, deaths and no clear strategy for an end. At home, unsecure borders and seemingly unresolvable problems created by illegal aliens were the cause of increasing public anger. While I continued my congressional fellowship, my wife worked Tuesdays at the White House answering telephones. The volume and intensity of telephone calls from the American public tracked their increasing sense of frustration. While Americans are frustrated by events such as a war that cannot be won, they are even more frustrated by the sense that neither the president nor Congress appears to be able to resolve issues.

For most of the 20- and 30-year-old congressional staff members, the war is a very small part of the multitextured tapestry of complex issues with which they work every day. Each congressional office has a staff of five or six legislative assistants who share the 30-40 issues each congressperson needs to be informed about on a daily basis. A health care legislative assistant also may be responsible for tax, budget, pension, Social Security and retirement issues. For many there is a sense of amnesia about wars that cannot be won.

A policy committee trip to Walter Reed Medical Center abruptly refocused my memory. The sickly sweet smell of sweat, urine and open wounds twisted my stomach. The sights and sounds of head-injured multiple amputees brought cold sweat to the back of my neck just as they had when I made postoperative rounds in Saigon decades ago. My awareness of war is very different from many of my coworkers.

As Congress returned from the New Year's recess, an event occurred that left some of my coworkers in tears and my job in jeopardy. Tom DeLay, the House Majority Leader, resigned amid allegations of improper relations with lobbying firms. Two members of the congressional leadership and a committee chairman campaigned to replace the majority leader: Rep. John B. Shadegg (R-AZ), Chairman of the Policy Committee (for whom I worked); Rep. Roy Blunt

(R-MO), the Whip; and Rep John A. Boehner (R-OH), Chairman of the Committee on Education and the Workforce. Each candidate had a constituency but lacked a clear majority. The campaign for leader paralleled the strategies of all elections, solidifying constituencies while trying to persuade the unde-

*“My experience on Capitol Hill has only affirmed my belief that physicians need to understand how the system that regulates and pays them works and how issues within this system can be resolved.”*

cided. Rep. Shadegg's personal and policy staff became his campaign staff. The workday for most congressional staff begins before 8 a.m. and extends well into the evening. For the several weeks of the campaign, we stayed past midnight, preparing campaign materials, letters and briefing packets for members and background pieces for the press. The personal



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staff in a congressional office is a close-knit family.

The first ballot had produced three candidates who received a majority of the votes but no single winner. Before the second ballot, Rep. Shadegg withdrew, allowing his supporters to join in electing Rep. Boehner as the Majority Leader. The election demonstrated an example of strategic alliances in the political process. Mr. DeLay's resignation diminished the focus of public attention on congressional corruption. The election of a new leader, however, failed to restore public confidence in the ability of Congress to resolve issues.

The majority leader race ended Rep. Shadegg's tenure as Chairman of the Policy Committee. I was invited to join Rep. Shadegg's personal staff, helping with efforts to bring the Health Care Choice Act (H.R. 2355 and S.1015) to a vote by the House.

The Health Care Choice Act, sponsored by Rep. Shadegg and Sen. Jim DeMint (R-SC), would amend current law to allow for interstate commerce in health insurance plans for the individual market. The bill would allow individuals who reside in one state to buy affordable health insurance plans from other states. The content of insurance plans is determined by state governments that mandate which benefits, medical procedures and practitioners must be reimbursed <[www.heritage.org/Research/HealthCare/wm1164.cfm](http://www.heritage.org/Research/HealthCare/wm1164.cfm)>. Each mandate increases the cost of a basic policy by only 1 percent to 3 percent; it is their cumulative effect that compounds the cost of health insurance.

The Health Care Choice Act was passed by the House Committee on Energy and Commerce, with support from a number of groups favoring affordable health care for individuals. It was opposed by organizations that want specific mandated benefits for specific health conditions or for specific provider groups. In general those who oppose the bill would like to see the cost of benefits used by small groups of individuals spread over all purchasers of health insurance.

In order to confirm the continuing support of the Execu-

tive Branch for affordable individual health insurance, another staff member and I went to the White House's Old Executive Office Building to meet with Roy Ramthun, Special Assistant to the President for Economic Policy. After nearly an hour's discussion with Mr. Ranthum, we were politely told that the president would defer to Speaker of the House Dennis Hastert. We then met with Speaker Hastert's health policy director to determine the speaker's priorities for bringing the bill to the House for a vote. He indicated that although the speaker was eager to bring the bill forward, the speaker's current policy is to bring forward only those bills that have an assured majority of 218 votes.

Because of the sensitivity to pressures from opponents on members in closely contested re-election races, much of the campaigning for the bill was left to supporting stakeholders in those districts. My efforts were directed to keeping supporting groups, such as the Council for Affordable Health Insurance, informed and up to date. I was also able to draw on help from coalition contacts that I had made as a state campaign steering committee member during the presidential election cycle as well as organizations representing self-employed individuals in my home state.

Subsequent meetings with uncommitted members confirmed that although the bill had 210 supporters, pressure from groups favoring mandates would make it difficult to gain additional supporters before November. Philosophical divisions over the fundamental question of the purpose for insurance are clear. We are a nation closely divided on many philosophical issues. The power of alliances was made clear to me. The challenge of providing affordable individual health insurance remains unresolved.

During my time on Capitol Hill, I also was an observer to Congress' work on other challenging issues. The federal response to Hurricane Katrina raised issues regarding federal preparedness and response to naturally occurring disasters. The events of 9/11 raised issues regarding our preparedness and response to human threats. Resolution of

## Apply for the 2007-08 Lansdale Public Policy Fellowship

ASA is accepting applications for the 2007-08 Lansdale Public Policy Fellowship, an in-depth health care policy training experience in Washington, D.C. Fellows seek appointments in offices within Congress and have the opportunity to participate in many facets of the legislative process:

- Aiding in the formulation of legislative proposals
- Arranging and attending hearings
- Briefing legislators for committee sessions and floor debates.

The one-year program, which begins September 1, 2007, is supported by a stipend from ASA. Fellows can expect to provide full-time service in this position working as participants in the policy process and having many opportunities to take part in educational programs on the Hill.

Applications must be postmarked on or before **January 31, 2007**.

For more information, visit the ASA Web site at <[www.ASAhq.org/Washington/lansdalefellowship.htm](http://www.ASAhq.org/Washington/lansdalefellowship.htm)>.

these preparedness issues has proceeded slowly. Competing agendas within agencies, congressional committees, the House, Senate and the administration have not been resolved, and some would question whether we are any better prepared to respond to large-scale disasters than we were a year ago.

As a physician on the inside, I was no less frustrated than my colleagues in practice by the inability of Congress to resolve issues of critical importance to the profession. A method for dealing with the Sustainable Growth Rate formula for determining the annual update of the conversion factor for the Medicare Physician Fee Schedule remains unresolved. Physician payment under the Medicare program has been an issue since the inception of the program in 1965. Physicians are the only professional group that has a majority of their fees for their professional services regulated by federal price controls administered through a federal rule-making processes.

Throughout my fellowship, I was relatively successful at keeping my identity as a physician secondary to my staff identity. This often resulted in greater candor in the discussions in which I was involved. A committee staff member shared with me that her first assignment in a congressional office had been to work on the Patients' Bill of Rights. She said, at that time, that her only knowledge of health care was where to mail the check to pay for her insurance. She also shared that the greatest influence (negative) on her work came from a health care attorney who was counsel to a subcommittee. She said she often felt that he pursued his own agenda rather than policies that members wanted. Subsequent discussions with groups of health care staffers made clear that their understanding of health care is strongly influ-

enced by notions of managed care and health care economics currently taught by nonphysicians in schools of public health. Sadly they are often skeptical about information provided by practicing physicians.

Younger physicians and congressional staff are seemingly unaware of the breadth of the total impact of federal price controls and rule-making on the medical profession. They have lost sight of the fact that this degree of federal regulation of a profession is unique to medicine. Perhaps thinking outside the box is difficult if you are living in the only box you have known.

My experience on Capitol Hill has only affirmed my belief that physicians need to understand how the system that regulates and pays them works and how issues within this system can be resolved. Most importantly they need to understand and decide how much of their professional effort they want to continue to subject to federal regulation and price controls. Perhaps the time has come to consider trading the security of Medicare assignment for easing the limitations on balanced billing. This may be a more sustainable approach than expending efforts on formulas for payment using theoretical economic models incorporating variables over which physicians have no control. Physicians must understand how the current system works in order to understand that they have the ability to exercise choice and can enact change in bringing issues to resolution.

Physicians also must understand the system if they have any interest in influencing the effect of government on their lives and their profession. The best way for each of us to begin is by learning how the government affects our daily lives and our practices at the local level.

## Washington Report: Medicare Payment Issues Again Take Center Stage — Your Urgent Action Is Needed!

*Continued from page 4*

Representative and Senators are in full support of our three bills to restore full funding to our residency training programs. Again, information and Congressional contact information is readily available at: <[www.ASAhq.org/news/hr5246.htm](http://www.ASAhq.org/news/hr5246.htm)>.

Third, seek support and House cosponsors for the Medicare anesthesiology pass-through bill, H.R. 5955. As described above, with simple enactment, anesthesiology medical care in rural areas could be greatly expand-

ed. Please do your part in bringing this measure to the attention of your U.S. House Representative: <[www.ASAhq.org/news/news072806.htm](http://www.ASAhq.org/news/news072806.htm)>.

Last — Vote. There's still time to get an absentee ballot, so cast your ballots, either in person or by mail. Election Day is Tuesday, November 7, 2006.

On all of these items, time is short: so, like the ad says, "just do it!"

## Volunteerism Begins at Home

Arthur M. Boudreaux, M.D.  
ASA Assistant Secretary

In response to hurricanes Katrina and Rita, the American people showed their generosity, philanthropy and personal commitment to those in need on an unprecedented scale. Thousands of volunteers flocked to the affected areas to lend assistance. News coverage highlighted the disaster zones, the government response and the successful rescues. There was criticism of the failures of our system, the bureaucracy and its impediments, and the occasional story of heroism — but the efforts put forth by so many in other parts of the country received little coverage.

***“The personal stories were chilling. One of my patients described being trapped in the attic of his home while the water level rapidly rose. He was able to chop a hole in the roof using a hand ax, allowing his escape. He was so appreciative of the help received from everyone ...”***

There were many silent heroes. Displaced residents were housed with family members, at second homes, in college dorms with students and in church facilities. On their way from New Orleans to Birmingham, my brother's family spent the night in a Montgomery hotel. The next morning at checkout, the desk clerk said an anonymous man wanting to help those in need paid the hotel bills of all guests from Louisiana and Mississippi. There are countless examples of volunteers such as these.

For health care workers, volunteering also begins at home. We have seen many wonderful examples of medical

volunteers sent to disaster zones in the form of Disaster Medical Assistance Teams (DMATs) or simply volunteers flocking to the scene to lend a hand. These first-responders provided initial needed care for many patients. A concerted effort, though, in all parts of the country enabled delivery of health care services to thousands of displaced and evacuated patients as a part of the National Disaster Medical System (NDMS). Formed by presidential order in 1983, its stated goal is to deliver quality health care services to victims of military conflict and domestic disasters. NDMS is a

partnership between the departments of Veterans Affairs, Health and Human Services, Defense, the Federal Emergency Management Agency (FEMA) and hundreds of hospitals, health systems and state health departments across the country. The three components of the NDMS are: 1) medical response to a disaster area in the form of teams, supplies and equipment; 2) patient

movement from a disaster site to unaffected areas of the nation; and 3) definitive medical care at participating hospitals in unaffected areas. DMATs and first-responders are responsible for initial treatment and triage.

If a disaster requires evacuation of casualties or patients from health care facilities in the disaster area, FEMA activates Federal Coordinating Centers (FCCs) located in major metropolitan centers surrounding the disaster area. Participating hospitals report beds available to receive transfers, and local FCC directors implement a plan for acceptance, immediate treatment and triage, transport and assignment of patients to local hospitals. The Department of Defense (DOD) is responsible for transport of patients using the DOD Aeromedical Evacuation System. The Global Patient Movement Requirements Center (GPMRC) at Scott Air Force Base in Illinois dispenses an Immediate Response Assessment Team (IRAT). The IRAT coordinates patient movement to various FCCs. Patients are transported from the airport closest to the disaster site via C-130 or C-141 aircraft. Transport of patients to the airport at the disaster site is the responsibility of state and local governments. When patients arrive at FCC areas, they are dispersed to local participating hospitals. All medical care provided is reimbursed through the Medicare program.



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**Table 1**

FCC	Missions	Patients
Atlanta, GA	17	1,183
Birmingham, AL	3	159
Dallas, TX	5	222
Houston, TX	18	667
Little Rock, AR	1	20
Miami, FL	1	40
Nashville, TN	1	104
Orlando, FL	1	51
San Antonio, TX	8	303

*Source: Birmingham Regional Emergency Medical System*

When the system was activated, an enormous and coordinated volunteer activity began. In Birmingham, all participating hospitals, emergency personnel and patient transport services were notified. Our FCC director at the Birmingham VA Medical Center and the director of the Birmingham Regional Emergency Medical System coordinated the activation. Each participating hospital identified the number of hospital and critical care beds available to accept transfers. At UAB we initiated our hospital disaster plan, identified patients of less acuity that could be transferred to other local hospitals to make room for critically ill patients, and developed a schedule of volunteer faculty physicians, residents and nurses to staff a triage center at the Birmingham airport. We organized a system to evaluate and triage patients in our emergency department and increased staffing in critical care units. More than 100 people staffed a triage center set up in

an aircraft hangar at the Birmingham Air National Guard base on an eight-hour shift basis. Ambulances and UAB Critical Care Transport vehicles were dispatched to the airport to await landing military aircraft. After arrival patients received an initial evaluation and were triaged to the appropriate Birmingham facility for the level of care anticipated in an equitable fashion.

The system worked quite well for both hurricane events with only a few glitches. Physicians, nurses and other medical personnel from all over the city readily volunteered for long hours at the airport, emergency department, intensive care units and the operating rooms. For Katrina, 2,749 patients were moved through the system in the southern states [Table 1]. Birmingham received 159 patients during Katrina in three missions. There was a larger coordinated response for Rita, but fewer patient transports were necessary. Our greatest problem was a sparsity of accurate medical records. Some patients arrived without any identification or records, which delayed appropriate management. During the Hurricane Rita evacuation, we received a group of nursing home residents with namebands only. Each patient required a greater evaluation and investigation that consumed more resources than necessary. A simple working diagnosis and medication list would have been helpful.

The personal stories were chilling. One of my patients described being trapped in the attic of his home while the water level rapidly rose. He was able to chop a hole in the roof using a hand ax, allowing his escape. He was so appreciative of the help received from everyone, including the police in the rescue boat, DMAT doctors, military transport personnel and finally for the medical treatment received in Birmingham.

In retrospect it was impressive to see the outpouring of support and volunteerism for both of these disasters. Local responses, like that in Birmingham, were duplicated all over this country. We can all help in such situations. The rewards are beyond words.

## Administrative Update: Diversification of ASA Assets

*Continued from page 3*

A major question is: How much will all this cost ASA? Evaluations indicate that the increased security and decreased risk of the new diversified portfolio will cost ASA only slightly more than what we were paying to have the old single bond fund and single large cap growth fund managed. Hopefully the new diversified

portfolio will be more resistant to market fluctuations and provide ASA with the funds needed to carry out its great works for decades to come.

Once again I would like to thank the members of the section for their hard work in getting this important job done!

## Physician Volunteerism During Major Disasters and Community Emergencies

J. Kent Garman, M.D., M.S.

**D**uring last year's Hurricane Katrina disaster in the Gulf States, there was an outpouring of both personal and financial support for the victims. Physicians also wanted to help and, in many cases, tried to find a method to volunteer their services in the area. In fact, more than 3,500 physicians signed up through the Internet with the U.S. Department of Health and Human Services (HHS) as available for immediate deployment. Few of these volunteers were actually used. Many individual physicians simply went to the Gulf and pitched into the chaos with varying results. Most physicians, however, found that their desire to lend their medical skills could not be fulfilled. Many physicians who wanted to help were very frustrated at their inability to do so.

A number of volunteer civilian physicians and other health care providers were, in fact, deployed under federal auspices within two days of the disaster and served under very harrowing, dangerous and frustrating (yet gratifying) conditions. How did this happen?

Because of this disaster, the federal government and state governments now realize that it is vitally important to have a group of precredentialed and trained health care professionals available in case of a future emergency. Much attention is being paid to the possibility of a flu pandemic and the need for surge capacity of hospital beds, drugs, supplies and, most importantly, health care providers.

### Fitting Into a Plan for Future Disasters

The question this article will answer is: How can physicians and other health care providers become preregistered, precredentialed and pretrained to respond to a future disaster or community emergency? How can they fit into a plan to provide surge capacity to augment local health care facilities that have been overwhelmed by patients?

The first fact to understand is that emergency agencies

usually do not want individual, unsolicited and uncredentialed physicians to just show up for work. Physicians who try this are usually sent home. If they do actually work, they are subjecting themselves to extreme liability risk since they are usually not covered by one of the federal liability protection programs. Also, since they are not usually credentialed to practice medicine in other states, they are sometimes actually violating state law if they do practice without a license. Good Samaritan laws covering medical volunteers vary widely from state to state and cannot be counted on to protect an individual physician from liability. Organized federally credentialed groups are working as federal agents or employees and are exempt from these problems under the Federal Tort Claims Act. Having said this, there were many individual physicians who managed to contribute their skills under very difficult circumstances in the Katrina disaster.

The American College of Emergency Physicians and the National Association of EMS Physicians have published a "Policy on Unsolicited Medical Volunteers"<sup>1</sup> which states that an organized approach is needed for all medical volunteers in a disaster [Table 1, page 25]. They advise that medical personnel should not respond to an emergency unless officially requested by the jurisdiction's emergency medical services agency.

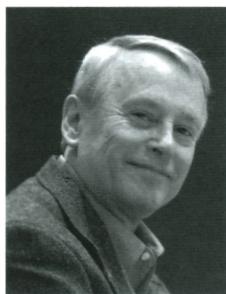
The federal government divides the responsibility for various medically related areas in major disasters and emergencies among at least seven different agencies<sup>1</sup> [Table 2, page 26]. All of these agencies participated in various ways during the Katrina disaster. Physician volunteers were recruited under HHS and the Department of Homeland Security (DHS), Division of Emergency Preparedness and Response [Federal Emergency Management Agency (FEMA)]. Some Veterans Administration hospitals also were tasked to contribute medical volunteers to the effort.

Some medical volunteers were asked to deploy to the Gulf area with the Red Cross. Reports from some physicians were that they were not allowed to use their medical skills in shelters because of Red Cross liability concerns.

### Methods for Civilian Physicians to Volunteer

It turns out that there are several effective methods for civilian physicians to volunteer their skills to join an organized group of physicians and other health care workers in case of a major national disaster. Much of the content below has been obtained from public Web sites. The Web sites are listed for the convenience of the reader.

There are varying levels of commitment and effort for



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**Table 1: Policy on Unsolicited Medical Volunteers**

### **Unsolicited Medical Personnel Volunteering at Disaster Scenes**

**Approved by the ACEP Board of Directors June 2002**

(Policy #400320, Approved June 2002)

The American College of Emergency Physicians (ACEP) and the National Association of EMS Physicians (NAEMSP) believe an organized approach is needed for the utilization of unsolicited medical personnel who volunteer to respond to disaster scenes or mass casualty incidents. To ensure the efficient, effective, and safe mobilization of such volunteer medical resources, medical command must come under the authority of the medical director for the emergency medical services (EMS) system and the jurisdiction's established incident command system (ICS). This practice will ensure the integration of all medical functions in the area and accountability under the jurisdiction's established (ICS) without hampering authorized and established functioning rescue efforts.

Volunteer medical personnel (eg, physicians, nurses, emergency medical technicians, etc.) should not respond to a disaster scene unless officially requested by the jurisdiction's established ICS. All personnel must understand the authority and resources of local EMS and health care systems, the importance of staffing their facilities as their primary responsibility, and the dangerous conditions associated with on-site operations.

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volunteers. The four methods are listed in order of increasing commitment, effort and time commitment.

#### **1. Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) Plan**

The ESAR-VHP program is a national mandate funded by the federal Health Resources and Services Administration (HRSA).<sup>2</sup> It provides multiyear grants to states for bioterrorism preparedness. The program is on a "fast track" since federal funding ends August 2007. Most states are planning to complete registrations before 2007.

The grant mandate is to develop a system that provides for the advanced registration and credentialing of clinicians in order to augment a hospital or other medical facility and thereby meet the increased patient/victim care needs during a declared emergency. The program hopes to capture, in advance, the historically large stream of health care personnel who wish to volunteer their expertise during a disaster or emergency.

ESAR-VHP plans to enroll the following professionals: M.D., D.O., R.N., N.P., D.D.S., pharmacists, paramedics,

respiratory care and behavioral health. All volunteers must have an active, unencumbered license.

Although this program is the least formal of all the programs, it does plan to determine how the ESAR-VHP volunteers will be integrated, insured, trained, housed, supervised and managed during the emergency incident.

Physicians and other health care providers should expect to receive information soon about volunteering for this program. Since there is really no formal time commitment incurred by signing up, it is probably a good idea to do so since it will give you the opportunity to help in case of a future disaster or emergency.

#### **2. Medical Reserve Corps (MRC)**

The second method concerns joining a Medical Reserve Corps (MRC).<sup>3</sup> There are currently more than 300 MRCs in the United States. Your closest one can be located on the MRC Web site.<sup>3</sup>

An MRC is a community-based network of volunteers that assists public health efforts in times of special need or disaster, e.g., during a major communicable disease out-

**Table 2: Civilian Medically Related Programs of the U.S. Government**

- U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Public Health Emergency Preparedness (ASPHEP)
- HHS Bioterrorism Hospital Preparedness Program
- Department of Homeland Security (DHS) Division of Emergency Preparedness and Response (FEMA)
- DHS National Pharmaceutical Stockpile
- Centers for Disease Control and Prevention (CDC)
- CDC Bioterrorism Health Preparedness and Response
- Department of Veterans Affairs (VA)

Medical Reserve Corps Technical Assistance Series, Coordinating with Your Local Response Partners, page 6. Web Document: <[www.medicalreservecorps.gov/page.cfm?pageID=77](http://www.medicalreservecorps.gov/page.cfm?pageID=77)>.

break, an earthquake, flood or an act of terrorism. Members of an MRC also may volunteer their time throughout the year in order to promote community public health and education.

The MRC program office is headquartered in the Office of the Surgeon General. It functions as a clearinghouse for information and best practices to help communities establish, implement and maintain MRC units across the nation. The MRC program office sponsors an annual leadership conference, hosts a Web site and coordinates with local, state, regional and national organizations and agencies to help communities achieve their local visions for public health and emergency preparedness.

MRCs bring volunteers together to supplement existing local emergency plans and resources. In order to be effective during times of emergency, volunteers must be organized and trained to work in emergency situations. The MRC is designed to provide that organizational structure and to promote appropriate training of volunteers according to local community needs and vulnerabilities.

Any variety of individuals depending on community need may comprise MRCs. Volunteers may include, but are not limited to, current or retired health professionals (such as physicians, nurses, mental health professionals, dentists, dental assistants, pharmacists and veterinarians), social workers, communications/public relations professionals,

health care administrators, clergy, etc. Each MRC can customize its membership to fit community needs.

MRC volunteers can choose to support communities in need nationwide. When the Southeast was battered by hurricanes in 2004, MRC volunteers in the affected areas and beyond helped communities by filling in at local hospitals, assisting their neighbors at local shelters and providing first-aid to those injured by the storms. Over this two-month period, more than 30 MRC units worked as part of the relief efforts, including those whose volunteers were called in from across the country to assist the American Red Cross and FEMA. MRCs also are tied into most states' emergency medical services authority and can be activated by either state or county EMS agencies as well as by the federal government. All deployments are voluntary.

### 3. Disaster Medical Assistance Team (DMAT)

The next and most organized method is the DMAT.<sup>4</sup> Many of these units were, in fact, immediately deployed to the Katrina disaster under HHS/FEMA.

As an example, the San Francisco Bay Area DMAT (CA-6)<sup>5</sup> was mobilized within two hours of the disaster and deployed a 35-member team directly to New Orleans by air within eight hours. Support supplies were moved by ground transport. The team, however, simply relieved another DMAT and used their prepositioned supplies. The San Francisco DMAT took more than a half million dollars worth of supplies and equipment to the disaster, including a complete tented field hospital.

The DMAT program is a federal program under the National Disaster Medical System (NDMS)<sup>6</sup> that organizes and pretrains medical and paramedical volunteers. Nationally there are currently more than 29 deployable teams, each with 50 to 150 civilian volunteers<sup>7</sup> [Table 3]. Deployed teams usually consist of 35 medical and paramedical professionals and support personnel.

NDMS, under the Department of Homeland Security, fosters the development of DMATs. A DMAT is a group of professional and paraprofessional medical personnel (supported by a cadre of logistical and administrative staff) designed to provide emergency medical care during a disaster or other event.

Each team has a sponsoring and funding organization such as a major medical center, public health or safety agency, nonprofit, public or private organization. The DMAT sponsor organizes the team and recruits members, arranges training and coordinates the dispatch of the team.

In addition to the standard DMATs, there are highly specialized DMATs that deal with specific medical conditions such as crush injuries, burns and mental health emergencies. Other specialty teams include Disaster Mortuary Operational Response Teams that provide mortuary services, Veterinary Medical Assistance Teams that provide veterinary

**Table 3: Listing of DMAT Teams**

AK-1 . . . . Anchorage	FL-6 . . . . Orlando	OH-5 . . . . Dayton
AL-1 . . . . Birmingham	GA-3 . . . . Atlanta	OH-6 . . . . Youngstown
AL-3 . . . . Mobile	GA-4 . . . . Augusta	OK-1 . . . . Tulsa
AR-1 . . . . Little Rock	HI-1 . . . . Wailuku	OR-2 . . . . Eugene
AZ-1 . . . . Tucson	IN-4 . . . . New Albany	PA-1 . . . . Pittsburgh
CA-1 . . . . Santa Ana	KY-1 . . . . Fort Thomas	PHS-1 . . . . Washington
CA-2 . . . . San Bernardino	MA-1 . . . . Boston	RI-1 . . . . Providence
CA-4 . . . . San Diego	MA-2 . . . . Worcester	SC-1 . . . . Charleston
CA-6 . . . . Martinez	MI-1 . . . . Wayne	TN-1 . . . . Chattanooga
CA-9 . . . . Los Angeles	MN-1 . . . . St. Louis	TX-1 . . . . Houston/EI Paso
CA-11 . . . . Sacramento	MO-1 . . . . St. Louis	TX-3 . . . . Galveston
CO-2 . . . . Denver	NC-1 . . . . Winston-Salem	TX-4 . . . . Metroplex
CT-1 . . . . Hartford	NJ-1 . . . . Lyons	WA-1 . . . . Seattle
FL-1 . . . . Pensacola	NM-1 . . . . Albuquerque	
FL-2 . . . . Port Charlotte	NV-1 . . . . Las Vegas	To access the Web sites for these teams,
FL-3 . . . . Tampa	NY-2 . . . . Westchester	go to < <a href="http://www.dmatca6.org">www.dmatca6.org</a> > and click on
FL-4 . . . . Jacksonville	NY-4 . . . . Pomona	"Other DMAT teams."
FL-5 . . . . Miami	OH-1 . . . . Toledo	

services and National Medical Response Teams that are equipped and trained to provide medical care for victims of weapons of mass destruction.

DMATs deploy to disaster sites with sufficient supplies and equipment to sustain themselves for a period of 72 hours while providing medical care at a fixed or temporary medical care site. In mass casualty incidents, their responsibilities include triaging patients, providing austere medical care and preparing patients for evacuation. In other types of situations, DMATs may provide primary health care and/or may serve to augment overloaded local health care staffs. Under the rare circumstance that disaster victims are evacuated to a different locale to receive definitive medical care, DMATs may be activated to support patient reception and disposition of patients to hospitals.

DMATs are designed to be a rapid-response element to supplement local medical care until other federal or contract resources can be mobilized or the situation is resolved.

DMAT members are required to maintain appropriate certifications and licensure within their discipline. When members are activated as federal employees, licensure and certification are recognized by all states. Additionally DMAT members are paid while serving as part-time federal employees and have the protection of the Federal Tort Claims Act in which the federal government becomes the defendant in the event of a malpractice claim.

DMAT teams are expected to be deployable within 12 hours and wear insignia and military-style uniforms while deployed. An individual is expected to complete extensive,

free online and field training before being qualified for deployment. There are immunization, training and meeting attendance requirements to maintain membership. Meetings of DMATs are held regularly with some overnight or multi-day field exercises.

DMATs need more physicians. In order to join, simply find the unit closest to you and contact the unit commander. In order to be qualified for temporary federal service, it is necessary to complete extensive federal application forms. The application process takes from one to four months to go through the various federal approvals. In the meantime, the new member can take the required online training and participate fully with the unit with the exception of federal deployment.

It is important to stress that DMATs are civilian, volunteer organizations. All deployments and participation are fully voluntary.

### Conclusion

It is interesting that FEMA, in August 2001, predicted the three most likely catastrophes that might hit the United States. First was a terrorist attack in New York City, second was a full-strength hurricane hitting New Orleans and third was a major earthquake in California along the San Andreas fault. Two of these predictions have already come true — is California next?

Will our communities be stressed by a flu pandemic? If

*Continued on page 32*

## Overseas Teaching Program: Legacy of the SS HOPE

Robert E. Johnstone, M.D.

**T**he *SS HOPE*, the world's first peacetime hospital ship, voyaged outside the United States eight times between 1960 and 1973. Retired in 1974, the *SS HOPE* survives as the model for the ASA Overseas Teaching Program (OTP).



Figure 1. *SS HOPE* docked in the sugar port of Maceio, Brazil, in 1973.

William Walsh, M.D., founded Project HOPE in 1958 and acquired the mothballed World War II hospital ship, *USNS Consolation*. Refitted, the ship embarked in 1960 as the *SS HOPE*. It contained three operating rooms. Although the *SS HOPE* was much smaller than current naval hospital ships, it fit the core mission of Project HOPE well — to teach and assist local doctors and nurses.<sup>1</sup> Project HOPE characterized this as “helping people to help themselves,” which differed from most overseas medical services that emphasized patient care. Project HOPE leaders often quoted the Chinese proverb, “To feed a person for a day,

give him a fish. To feed him for a lifetime, teach him to fish.”

The *SS HOPE* last voyaged in 1973 to Maceio, Brazil, a sugar port [Figure 1]. A senior resident then, I flew to Maceio with Brett B. Gutsche, M.D., a faculty anesthesiologist, and joined 29 other physicians and dentists aboard the docked ship. We followed the HOPE plan for Maceio: “One anesthesiologist would be expected to work on shore. He should be primarily responsible for setting up a functioning anesthesia department and supervising the development of a recovery room, ICU and inhalation therapy department. The ship-based anesthesiologist should be responsible for teaching resident physicians while on the ship, using modern techniques.”<sup>2</sup>

Dr. Gutsche and I alternated these duties. Aboard the ship we supervised nurse anesthetists and taught Brazilian medical students, surgeons and anesthesiologists. Frequent surgical procedures included splenectomies for shistosomiasis and intestinal resections for Chaga's disease (trypanosomiasis). We induced anesthesia with thiopental, maintained it with halothane and administered tubocurare for muscle relaxation. We monitored patients with precordial stethoscopes and electrocardiography.

In town we worked side by side with 14 Brazilian anesthesiologists. Most were self-taught and had admirable practical skills. We learned to use the sparse equipment effectively. There were tanks of oxygen but no nitrous oxide. Venturi devices attached to the oxygen lines provided suction. We administered methoxyflurane by bubbling oxygen through a small vaporizer and connecting the outflow to a bag, valve and mask or endotracheal tube [Figure 2]. Other drugs included thiopental, methohexital, Innovar (a fentanyl-droperidol combination), succinylcholine and curare. For regional anesthesia, we administered dibucaine and lidocaine, using glass syringes and reusable needles.

After Project HOPE abandoned the ship due to its high expense, some alumni anesthesiologists founded the OTP within ASA. Nicholas M. Greene, M.D., (1922-2004) the first chair of the OTP and the anesthesiologist most responsible for its founding, had served on the 1969 voyage of the *SS HOPE* to Tunisia. The philosophy of the OTP, as described by Dr. Greene, echoes that of Project HOPE: “While there are several outstanding volunteer medical programs based in the Western World, including the United States, that supply anesthesia coverage in underdeveloped countries ... the ASA/FAER-sponsored OTP is unique in several ways, including: 1) OTP emphasizes teaching, not the takeover of clinical care (and) 2) OTP is designed to support only pre-existing, structured anesthesia training programs headed by an anesthetist as director.”<sup>3</sup>

Mark P. Colip, M.D., OTP chair in 1996, described the philosophy as “to promote self-reliance through on-site teaching assistance.”<sup>4</sup> Phillip O. Bridenbaugh, M.D., current



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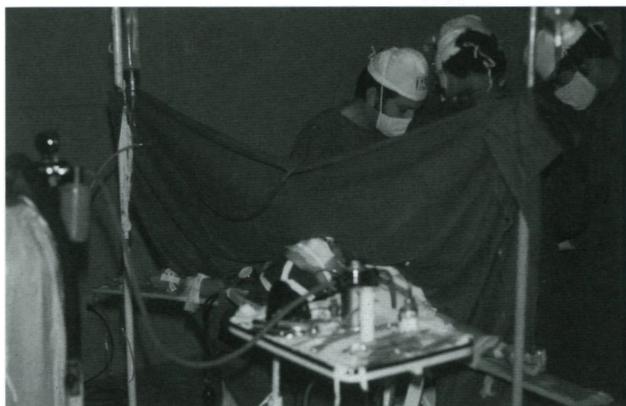


Figure 2. Anesthesia in a surgical office in Maceio, Brazil, in 1973. The hose from the oxygen tank connects to a methoxyflurane vaporizer and a small mechanical ventilator.

OTP chair, served for two months on the 1969 voyage of the *SS HOPE*. He writes, "The goals and mission of the ASA OTP were patterned after HOPE. The best example is the HOPE motto of 'teach teachers,' or now they say, 'TOT,' trainers of trainers." Anesthesiologists interested in the OTP can find more information on the ASA Web site at <[www.ASAhq.org/OTP/homepage.html](http://www.ASAhq.org/OTP/homepage.html)>.

#### References:

1. Morrow RC. Medical education on the SS Hope. *JAMA*. 1970; 211:257-260.
2. Archival documents, Project HOPE, Millwood, VA.
3. Greene NM. Overseas teaching program to make its debut in Africa. *ASA Newsl*. 1990; 54(10):8-11.
4. Colip MK. Overseas teaching program update: Encouraging indigenous leadership abroad. *ASA Newsl*. 1996; 60(11):6-8.

## Overseas Adventures in Anesthesia

Robert T. O'Bannon III, M.D.

**B**ugando Medical Centre is one of four major hospitals in Tanzania, an east African country of 32 million people. With only 1,200 doctors, Tanzania depends on international help, especially in anesthesiology. I spent a month of my CA-3 resident training in Bugando. It was a valuable experience, an incredible adventure and something I will remember forever.

I found the position through Health Volunteers Overseas, which assists anesthesiology programs in several countries, and the Society for Education in Anesthesia (SEA), which sponsors instructors for Bugando. I also received a SEA/Ronald L. Katz Traveling Fellowship from SEA. My department chair, medical school dean and American Board of Anesthesiology administrators approved the month as part of my residency training.

Bugando is located in Mwanza, a city of 600,000, on the eastern shore of Lake Victoria. Mount Kilimanjaro, the Serengiti Plain and the Olduvai Gorge, site of the earliest humanoid skeletons, are nearby.

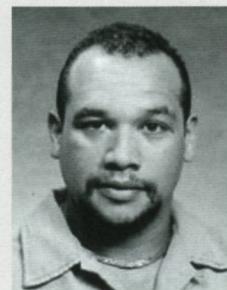
Bugando lists 800 beds, and I saw as many as four infants in one bed. The need for health care at Bugando is great, and the capacity limited. During my time there, two anesthesiologists, several assistants and a dozen students provided the anesthesia. Figure 1 shows this collegial group. General, trauma and gynecologic surgical procedures predominated, reflecting the specialists present during the month.

My typical day started at 7:30 a.m. with morning report. Call personnel reported on overnight activities, and nurse anesthesia students presented their cases for the day. After morning report, I either worked in the operating theatres or attended intensive care unit rounds. After lunch I prepared lectures that I gave at 3 p.m. to the anesthesia or medical students.

Our primary anesthetic drugs were thiopental, ketamine, halothane and ether. I learned to use draw-over vaporizers, the Epstein-Macintosh-Oxford for ether and the in-line Oxford Miniature for halothane.

The overseas training month required planning. In

*Continued on page 32*



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## A Procedure-Specific Approach to Improve Postoperative Pain Management

Girish P. Joshi, M.D., M.B.B.S.  
Henrik Kehlet, Prof., M.D., Ph.D.

**W**ith the increase in surgical workloads,<sup>1</sup> particularly increases in ambulatory surgical procedures, there is an increased need for effective and prolonged postoperative pain relief. In addition effective, dynamic pain relief is a prerequisite for improving outcome.<sup>2,3</sup> It is increasingly evident that a preventative, mechanism-specific, multimodal approach is required to achieve optimal analgesia

limited as they are derived from a variety of surgical procedures and may not be applicable for all surgical procedures.<sup>9</sup> Different surgical procedures have different pain characteristics (e.g., different pain location, intensity, type and duration) as well as different consequences of postoperative pain (e.g., consequences of pain after dental surgery are different from those after thoracic surgery). Further-

**“Although evidence-based guidelines improve clinical practice by providing health care workers with updated information, conventional pain management guidelines are limited as they are derived from a variety of surgical procedures and may not be applicable for all surgical procedures.”**

more, although certain analgesics (e.g., opioids and nonsteroidal anti-inflammatory drugs [NSAIDs]) could be utilized for most surgical procedures, other analgesic techniques (e.g., intra-articular or intraperitoneal techniques) are applicable to specific surgical procedures. In addition the risks and benefits of different analgesic techniques differ

and avoid undesirable consequences of pain, including development of chronic pain after surgery.<sup>4,5</sup> In addition it is realized that organized acute pain services and quality improvement initiatives are critical components of optimal pain management.<sup>6</sup> Despite emphasis on provision of adequate analgesia and publication of guidelines,<sup>7</sup> however, treatment of postoperative pain continues to be a major challenge.<sup>8</sup>

Although evidence-based guidelines improve clinical practice by providing health care workers with updated information, conventional pain management guidelines are

between surgical procedures (e.g., neuraxial analgesia may be risk-beneficial for upper-abdominal procedures but not for laparoscopic cholecystectomy).

More recently, numbers needed to treat (NNT) values (i.e., number of patients who achieve at least 50-percent pain relief as compared to placebo) have been used to assess the efficacy of analgesics.<sup>10</sup> Although the NNT values provide a simplified approach to choice of an analgesic, they are derived from a variety of surgical procedures. Efficacy of an analgesic, however, may vary depending upon the type of surgical procedure. For example acetaminophen was less



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effective in relieving pain after orthopedic procedures than after dental procedures (i.e., NNT 1.87 vs. 3.77, respectively).<sup>11</sup> In addition efficacy of combinations of analgesics varies significantly between surgical procedures. It is observed that although the combination of acetaminophen and NSAIDs provided improved analgesic efficacy after mild to moderate surgical procedures, the benefits of the combination were smaller for more extensive surgical procedures.<sup>12</sup> Furthermore the clinical relevance of a 50-percent decrease in pain (i.e., definition of NNT) may be different with an initial pain score of 80 on a 100-point VAS scale as compared to a score of 30. Therefore it is clear that NNT may not necessarily be valid in all types of surgery as well as all intensities of pain.

Taken together it is increasingly apparent that recommendations for postoperative pain management should be specific for surgical procedures.<sup>9</sup> To date, there are two initiatives that provide procedure-specific postoperative pain guidelines, one from the United States Veterans Health Administration, the Department of Defense and the University of Iowa <[www.oqp.med.va.gov/cpg/cpg.htm](http://www.oqp.med.va.gov/cpg/cpg.htm)><sup>13</sup> and the other from the "prospect Working Group" <[www.postoppain.org](http://www.postoppain.org)>.<sup>14</sup> The VA procedure-specific guidelines have been constructed based upon a systematic review of the medical literature in a variety of procedures and interpreted by a consensus group to provide the guidelines for overall recommendations for specific analgesic interventions. This group plans to update the guidelines every three years.

The prospect Working Group (**Procedure-Specific Postoperative Pain Management Group**) is a collaboration of international anesthesiologists and surgeons that provides evidence-based recommendations on a procedure-specific basis. These recommendations are derived from systematic reviews of the literature (using the Cochrane Collaboration of randomized controlled trials of analgesic, anesthetic and surgical interventions affecting postoperative pain) in the type of surgery.<sup>15,16</sup> The procedure-specific systematic reviews are supplemented with evidence from other similar surgical procedures (i.e., transferable evidence) and clinical practice information (i.e., practical guidelines from the prospect Working Group). The recommendations available online <[www.postoppain.org](http://www.postoppain.org)> are arranged into preoperative, intraoperative and postoperative sections, which are presented as folders in the "tree" structure. Within the folders, evidence and clinical practice are presented as arguments for and against an analgesic, anesthetic or operative technique, together with links to abstracts. The availability of detailed information allows readers to make their own decisions based on their practice, and they do not necessarily have to follow the prospect Working Group's recommendations.

In summary, the choice of analgesic techniques needs to be individualized for each patient as well as for a specific procedure. The procedure-specific guidelines may be incorporated into clinical pathways for specific surgical procedures,<sup>2</sup> which along with an organized acute pain service should improve postoperative pain management and surgical outcome.<sup>2,3</sup> Finally, it also is mandatory to integrate multimodal analgesic therapy into surgical care as a continuum from the preoperative period through the convalescence period, which will require close cooperation between anesthesiologists and surgeons.<sup>2,3</sup>

#### References:

1. Liu JH, Etzioni DA, O'Connell JB, Maggard MA, Ko CY. The increasing workload of surgery. *Arch Surg*. 2004; 139:423-428.
2. Kehlet H, Dahl JB. Anaesthesia, surgery and challenges in postoperative recovery. *Lancet*. 2003; 362(9399):1921-1928.
3. Joshi GP. Multimodal analgesia techniques and postoperative rehabilitation. *Anesthesiol Clin N Am*. 2005; 23:185-202.
4. Joshi GP, Ogunnaike B. Consequences of inadequate postoperative pain relief and chronic persistent postoperative pain. *Anesthesiol Clin N Am*. 2005; 23:21-36.
5. Kehlet H, Jensen TS, Woolf C. Persistent postsurgical pain: Risk factors and prevention. *Lancet*. 2006; 367:1618-1625.
6. Rawal N. Organization, function, and implementation of acute pain service. *Anesthesiol Clin N Am*. 2005; 23(1):211-225.
7. Ashburn MA, Caplan RA, Carr DB, et al. ASA Practice guidelines for acute pain management in the perioperative setting. *Anesthesiology*. 2004; 100:1573-1581.
8. Apfelbaum JL, Chen C, Shilpa S, Gan TJ. Postoperative pain experience: Results from a national survey suggest postoperative pain continues to be undermanaged. *Anesth Analg*. 2003; 97:534-540.
9. Rowlingson JC, Rawal N. Postoperative pain guidelines-targeted to the site of surgery. *Reg Anesth Pain Med*. 2003; 284:265-267.
10. Moore A, Edwards J, Barden J, McQuay H. *Bandoliers Little Book of Pain*. Oxford: Oxford University Press; 2003.
11. Gray A, Kehlet H, Bonnet F, Rawal N. Predicting postoperative analgesia outcomes: NNT league tables or procedure-specific evidence? *Br J Anaesth*. 2005; 94:710-714.
12. Hyllested M, Jones S, Pedersen JL, Kehlet H. Comparative effect of acetaminophen, NSAIDs or their combination in postoperative pain management: A qualitative review. *Br J Anaesth*. 2002; 88:199-214.
13. Rosenquist RW, Rosenberg J. Postoperative pain guidelines. *Reg Anesth Pain Med*. 2003; 28:279-288.
14. Kehlet H. Procedure specific postoperative pain management. *Anesthesiol Clin N Am*. 2005; 23:209-210.
15. Kehlet H, Gray AW, Bonnet F, et al. A procedure-specific systematic review and consensus recommendations for postoperative analgesia following laparoscopic cholecystectomy. *Surg Endosc*. 2005; 19:1396-1415.
16. Fischer HBJ, Simanski CJP. A procedure-specific review and consensus recommendations for analgesia after total hip replacement. *Anaesthesia*. 2005; 60:1189-1202.

## Physician Volunteerism During Major Disasters and Community Emergencies

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so, health care facilities will be overwhelmed and will need help from a volunteer group of health care providers.

Since it appears that the United States will continue to face major natural and manmade disasters in the future, it is important for a flexible disaster medical response system to be available for immediate activation and deployment. Most physicians are willing and perhaps even enthusiastic about being involved in these efforts. It is important for the medical community to understand that a preorganized and formal structure will allow a more expeditious and effective response than individual efforts. A pool of trained and organized physician volunteers are needed for future disasters.

Individuals can, and probably will, be registered and participate in multiple volunteer organizations. For example an individual could be registered in the ESAR-VHP program, be a member of a local MRC and a member of a Federal deployable DMAT.

If there is no DMAT unit or MRC in your area, it is possible for individuals or organizations to organize one of these units. Both the MRC<sup>3</sup> and DMAT<sup>4</sup> Web sites have

extensive information available on how to join, organize and run one of these organizations.

### References:

1. Medical Reserve Corps Technical Assistance Series, Coordinating with Your Local Response Partners, page 6. Web Document: <[www.medicalreservecorps.gov/page.cfm?pageID=77](http://www.medicalreservecorps.gov/page.cfm?pageID=77)>.
2. Technical White Paper on ESAR-VHP program, Health Resources and Services Administration, U.S. Department of Health and Human Services, <[www.hrsa.gov/bioterrorism/esarvhp](http://www.hrsa.gov/bioterrorism/esarvhp)>.
3. Medical Reserve Corps Web site: <[www.medicalreservecorps.gov](http://www.medicalreservecorps.gov)>.
4. Disaster Medical Assistance Team Web site: <[www.oep-ndms.dhhs.gov/dmat.html](http://www.oep-ndms.dhhs.gov/dmat.html)>.
5. California DMAT CA-6 Web site: <[www.dmatca6.org](http://www.dmatca6.org)>.
6. National Disaster Medical System Web site: <[www.oep-ndms.dhhs.gov](http://www.oep-ndms.dhhs.gov)>.
7. DMAT Team Sites Web site: <[www.oep-ndms.dhhs.gov/team\\_sites.html](http://www.oep-ndms.dhhs.gov/team_sites.html)>.

## Overseas Adventures in Anesthesia

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Figure 1. Bugando Medical Centre Anesthesia Department, with Dr. O'Bannon in front.

addition to program approvals, I needed a visa and immunizations. I received meningococcal, yellow fever, hepatitis A and typhoid vaccinations as well as polio and tetanus boosters. I took prophylaxis for malaria and carried medicines for amoebic dysentery. Reviewing reports of recent trainees, I learned that men wore slacks and short-sleeved collared shirts. I would advise good walking shoes and a small backpack.

The ASA Web site provides information about the ASA Overseas Teaching Program at <[www.ASAhq.org/OTP/homepage](http://www.ASAhq.org/OTP/homepage)>. Links are available here to Health Volunteers Overseas as well as Interplast and Operation Smile. The Web site also shows the two draw-over vaporizers.

*The author thanks Robert E. Johnstone, M.D., for his assistance in preparing this article.*

**Y**es, it's true. Medicare proposes to lower payments to anesthesiologists and many other specialists yet again. On January 1, 2007 — as things stand now — the Medicare conversion factor for anesthesia services will drop by 12 percent for three independent reasons:

1. Sustainable Growth Rate (SGR): 5.1 percent (spending control applicable to all physician services);
2. Redistribution of relative values for physician "work": 6.0 percent;
3. Redistribution of relative values for practice expenses: 1.0 percent.

The unpleasantness is not over: In 2008, 2009 and 2010, the Centers for Medicare & Medicaid Services (CMS) project further annual 1-percent reductions attributable to the revaluation of practice expenses. CMS officials have said, however, that they expect that there will be new data and new lobbying arguments from all the specialties that will change these numbers over the next three years.

Those of you who have not put aside this column in disgust and who are reading on may be asking 1) why has ASA not prevented this outrage and 2) what is ASA doing now? The short answers to these important questions follow.

**1. Why has ASA not been able to stop the endless series of Medicare cuts?**

Medicare has a congressionally established annual budget that grows much more slowly than the demand for medical and health care services. Anesthesiology accounts for about 1.5 billion Medicare dollars each year and nurse anesthesia approximately \$523 million more — more than 2 percent of the agency's spending on physician services. This is a significant amount of money that ASA alone is eager to see increase.

The Medicare Fee Schedule, since its launch in 1992, has been extremely structured and also driven by the assumption that primary care services are underpaid. Adjustments to the payments made for any one specialty's services depend upon convincing the American Medical Association (AMA)/Specialty Society RVS Update Committee (RUC) and CMS that the relative values assigned under the fee schedule to three different categories — work, practice expenses and professional liability expenses — are incorrect.

Anesthesiology's disadvantage, in this system, is that we have lower practice costs and malpractice insurance rates

**Medicare Proposes More Cuts in Payments to Specialists**

*Karin Bierstein, J.D., M.P.H.  
Associate Director of Professional Affairs*

than most. Eighty percent of the anesthesia conversion factor reflects a measurement of "work." For the rest of medicine, practice expenses, i.e., the costs of running a medical office, account for some 45 percent. We are handicapped by our inability to show increases on the cost side to offset the tremendous devaluation of anesthesia work that slashed the conversion factor in 1992. And, as we know all too well, we have not been able to convince the other specialties on the RUC to redistribute relative values (i.e., dollars) from their pockets to ours. That is

a tough argument to sell when anesthesiologists' relative incomes are well known to our colleagues to be just below the 90th percentile.

In a budget-neutral world, where dollars shift according to arbitrary measurement processes and total spending cannot grow more than \$20 million per year without congressional action, specialties lose ground if they cannot demonstrate satisfactorily that the amount of work or of practice costs has increased. The complexity of the fee schedule and the heavy reliance on the RUC has enabled CMS to pin the responsibility for the unfairness and absurdity of a \$17 conversion factor on factors of which it surrendered control long ago.

When organized medicine first offered to hash out the relative values for all services among ourselves through the RUC, handing CMS a welcome gift, a very experienced and street-smart surgical organization lobbyist told me that measuring "resource costs" realistically was a fantasy. We all should just have insisted on negotiating prices with the federal government. He may have been right, but the bargaining option is no longer before us.

**2. What Is ASA Doing Now?**

We are urging CMS to make sure that the payment changes in the proposed fee schedule rule are transparent and correctly analyzed. We also are strongly encouraging the use of better practice expense data.

The two big changes in the proposed rule were the increases in the work valuation of visit ("evaluation and management" [E/M]) services — a mid-level office visit increased by 37 percent and the adoption of a new methodology for calculating practice expense values combined with the acceptance of private surveys submitted by a number of specialty societies. CMS is considering creating a special work adjuster to make the work values redistribution budget-neutral — and less visible than it would be if the adjust-

ment were made directly to the conversion factor, as it has been in the past. ASA is joining the majority of medical societies in discouraging recourse to a special adjuster.

We also are calling upon CMS to delay any decrease in the conversion factor that would finance the currently proposed practice expense shifts. Along with the many other societies that did not commission special practice expense surveys, we have committed \$25,000 to pay for a new multispecialty survey that will apply the same methodology to all, as did previous socioeconomic monitoring system surveys conducted by AMA. Finally we have asked CMS some technical questions, both in our formal comment letter and in a meeting at CMS headquarters in July, to ensure that the work values for the anesthesia codes have been updated properly to reflect the E/M adjustments and that the practice expense values have been weighted by site of service.

Although we received a derisory update in the valuation of anesthesia work in the last overhaul of the Medicare Fee Schedule, our efforts have not abated. Norman Cohen, M.D., chair of the Committee on Economics, with assistance from Stanley W. Stead, M.D., and Alexander A. Hanenberg, M.D., has developed a new methodology that should satisfy the objections of the RUC and of CMS in the last five-year review.

### **The view from the hot seat occupied by Norman A. Cohen, M.D., chair of ASA's Committee on Economics and representative to the RUC:**

“It's amazing what the combination of activism, large numbers, a compelling story and the vocal support of key members of Congress ... can accomplish. The 'cognitive' specialties juggled all their tools in a masterful fashion to get the evaluation and management (E/M) increases. As chair of the RUC's Evaluation and Management Five-Year Review Workgroup, I had a better view than most.

“ASA has presented a very convincing case demonstrating the undervaluation of anesthesia work, and we are doing everything possible to get this problem fixed. Unfortunately we face a huge challenge in matching the success of our 'cognitive' colleagues. Currently we just don't have the same political muscle. And making things even worse, the cost for our fix comes out of payments to all other physicians, most of whom, like us, are already facing huge cuts from E/M, practice expense changes and the sustainable growth rate update.

“Altruism may not go far enough!”

Perhaps the most important answer to the question, “What is ASA doing?” is this: We — officers, members and staff — do not let up in our efforts to persuade Congress to reform Medicare payment first by fixing the inequities of the SGR system. If, as Dr. Cohen says, “We just don't have the political muscle,” we can build it up. Please keep checking the *NEWSLETTER*, the ASA Web site and your e-mail for information on how you can help to make the government listen.

### **Practice Tip: Apply Now for Your National Provider Identifier**

May 23, 2007, could be the day Medicare stops processing your claims if you have not obtained your National Provider Identifier (NPI).

All physicians and other health care providers who are covered entities under the Health Insurance Portability and Accountability Act, or HIPAA, must obtain an NPI from CMS. The NPI will identify physicians and other providers on an electronic claim. It will replace not only the Unique Provider Identification Number used for years by CMS but also the various physician I.D. numbers used by private payers. The practice itself must also have an NPI.

CMS outlined the three ways to apply for an NPI in a May 2005 letter to health care providers:

- You may apply through an easy web-based application process. The web address is <nppes.cms.hhs.gov>.
- You may prepare a paper application and send it to the entity that will be assigning the NPI (the “Enumerator”) on behalf of the Secretary. A copy of the application, including the Enumerator's mailing address will be available on <nppes.cms.hhs.gov>. You may also call the Enumerator for a copy. The phone number is 1 (800) 465-3203 or TTY 1 (800) 692-2326.
- With your permission, an organization may submit your application in an electronic file. This could mean that a professional association [your corporation, for example] ... could submit an electronic file containing your information ...

The letter in its entirety is available at <www.cms.hhs.gov/NationalProvIdentStand/Downloads/NPIdearprovider.pdf>.

CMS representatives report that as of July 2006, they have issued more than 840,000 NPIs and are processing about 800 applications per day. Anesthesiologists and their

practices who have not yet applied for an NPI should start the process now. Remember, as of May 23, 2007, "no NPI will mean no payment," in the no-nonsense words of Sharon Merrick, ASA Coding and Reimbursement Manager.

CMS has established the following time frame for implementation:

Private payers may follow a different implementation schedule but are also required to use the NPI by May 23, 2007. Small health plans have until May 23, 2008.

For further information, please see <[www.cms.hhs.gov/apps/npi/01\\_overview.asp](http://www.cms.hhs.gov/apps/npi/01_overview.asp)>.

- **May 23, 2005 to January 2, 2006:** Physicians continue to use current Medicare legacy numbers.
- **January 3, 2006 to October 1, 2006:** Medicare will accept existing legacy Medicare numbers or an NPI that is accompanied by an existing Medicare number.
- **October 2, 2006 to May 22, 2007:** Medicare will accept existing Medicare legacy numbers and/or an NPI.
- **May 23, 2007:** Medicare will accept only NPI.

## Breaking the Mold: The WLM's Rare Book Room Re-do

*Continued from page 15*

Rare Book Room aim for a temperature range of 70-73 degrees F. As much as possible, plumbing and condensation risks have been resituated outside the Rare Book Room ceiling, a move that also prevents "too wet" concerns that follow.

In combating mold, control of humidity is frankly more important than control of temperature. Relative humidity greater than 55 percent encourages the spread of both insects and mold. Additionally, paper-threatening acid forms more readily under humid conditions. To minimize rises and fluxes in humidity, a dehumidifier has been placed in the ceiling outside the Rare Book Room and patched into the HVAC system.

In addition overly dry air embrittles adhesives, papers, leathers and even photographic emulsions. As with temperature changes, fluxes in relative humidity

threaten a collection more rapidly than any particular given extremes. When the Rare Book Room requires more humidity, an adjoining room's steam humidifier can supply it. The current Rare Book Room system is designed to keep relative humidity at 40-45 percent.

As a final note, the two WLM librarians and the WLM curator salute ASA Building and Member Services Manager Robert M. Wallace for his hard work in coordinating this vital project for the WLM's Rare Book Room. Indeed these upgrades should finally succeed in "breaking the mold" and protecting our precious antiquarian books housed in the Huston Rare Book Room for ASA members and the anesthesiology community for decades to come.



## Missouri Moves Closer to Offering Anesthesiologist Assistant Program

Lisa Percy, J.D., Manager  
State Legislative and Regulatory Issues

A significant step has been made toward the creation of the fifth anesthesiologist assistant (AA) program in the United States. The University of **Missouri** Board of Curators approved the creation of a Master of Science in Anesthesia program at the University of Missouri-Kansas City (UMKC) School of Medicine. The Missouri budget for fiscal year 2007 included additional funding for anesthesiology studies for UMKC. Next, the program will seek accreditation by the Commission on Accreditation of Allied Health Education Programs. The program plans to begin accepting students in the summer of 2007. UMKC's program will join AA programs currently offered at Case Western Reserve University (Cleveland, Ohio), Emory University School of Medicine (Atlanta, Georgia), Nova Southeastern University (Davie, Florida) and South University (Savannah, Georgia).

### AA Licensure Legislation

**North Carolina** AA licensure legislation that carried over from 2005 after receiving overwhelming support from the House Health Committee (24-4) died in the House Rules Committee. Neither the House Rules Committee nor full House of Representatives was provided the opportunity to vote on H.B. 1330 before the General Assembly adjourned for the year.

It is not for lack of support that the bill did not become law this session. In addition to its success in the House Health Committee, H.B. 1330 received unanimous support in both Senate health and finance committees and bipartisan support by the full Senate (42-3). After the bill passed the Senate, the Speaker of the House assigned the bill to the House Rules Committee where it remained until the General Assembly adjourned. Although legislation licensing AAs will have to be introduced again in 2007, this issue continues to retain its bipartisan support in the House and Senate.

Governor Robert Ehrlich of **Maryland** vetoed the prescription drug monitoring bills that were passed by the Maryland General Assembly in May <[www.ASAhq.org/Newsletters/2006/06-06/stateBeat06\\_06.html](http://www.ASAhq.org/Newsletters/2006/06-06/stateBeat06_06.html)>. S.B. 333/ H.B. 1287 would have directed the Department of

Health and Mental Hygiene to establish a prescription drug monitoring program that electronically collects and stores data concerning monitored prescription drugs. Governor Ehrlich's reasons for the veto include the bill's fiscal implications, potential encroachment on adequate pain management and patient confidentiality. Although the bills were vetoed, Governor Ehrlich directed the Department of Health and Mental Hygiene and Maryland Health Care Commission to form an advisory group of relevant stakeholders to examine prescription drug monitoring in addition to other ways to limit prescription drug abuse and diversion. The advisory group will focus on the following issues: use of electronic records, electronic monitoring of controlled drug prescriptions, pain management standard of care, patient confidentiality and addiction. The Maryland Health Care Commission and the Department of Health and Mental Hygiene will report their progress and recommendations by year-end.

### Pain Management Litigation

The Louisiana Society of Anesthesiologists and ASA have jointly filed an amicus brief in the litigation concerning the **Louisiana** nursing board's advisory opinion that allows nurse anesthetists to perform interventional pain management procedures. The Spine Diagnostic Center of Baton Rouge appealed the judge's ruling that the nursing board merely issued an opinion rather than a rule. The Center contends that the "opinion" in effect constitutes a rule. Louisiana statutory law, however, requires nursing scope-of-practice issues to be established only in an administrative rule in accordance with specific rule-making procedures under the Louisiana Administrative Procedures Act (LAPA). The Center contends that the nursing board circumvented this process by establishing scope of practice of a nurse anesthetist via an advisory opinion without following rule-making procedures required by LAPA. Therefore the appeal seeks an injunction and retraction of the advisory opinion. The American Society of Interventional Pain Physicians also has filed an amicus brief in support of the Center.

## The Anesthesia Foundation Helps Hurricane-Battered Residents

*William D. Owens, M.D., President  
Anesthesia Foundation*

The Anesthesia Foundation is now celebrating its 50th year of providing low-interest loans to ASA resident members and providing funds to encourage the development of educational material for all anesthesiologists regardless of where they are in the life cycle of continuing education. This past year, unfortunately, also provided an opportunity for the Anesthesia Foundation to provide financial help to some of our colleagues who were devastated by Hurricane Katrina. The details of the efforts of the Anesthesia Foundation and ASA are documented in the report of the task force to the ASA Board of Directors in August. In essence the Anesthesia Foundation gave \$2,500, based on documented need as determined by Internal Revenue Service guidelines, to each resident in training who was adversely affected by Hurricane Katrina. In addition the Foundation made additional monies available to all affected residents in the form of low-interest loans.

The Anesthesia Memorial Foundation began in 1956 as a tax-exempt organization affiliated with ASA. It was established by officers of ASA and their legal counsel to "aid in the improvement and advancement of anesthesia ..." and as a recipient organization for those who wanted to memorialize anesthesiologists. The articles of incorporation of the Foundation stated that one of the Foundation's aims was to "loan or give money to deserving persons to assist them in becoming specialists in anesthesia or for research or study in the field of anesthesia or related fields ..." The initial funds came from a contribution from the Ohio Society of Anesthesiologists and a loan, again, based on documented need, from ASA that was later converted to a grant.

The name was changed in 1984 to the Anesthesia Foundation when the incorporation address was changed from Ohio to Illinois. Between 1956 and the first quarter of 2006, the Anesthesia Foundation granted 899 loans to 723 individuals for a total of \$3,529,400. The recipients represent every state that has (or had) an anesthesiology residency program. As of March 31, 2006, there was \$723,675 in outstanding loans. The market value of investments was \$269,974, and the cash on deposit was \$419,753, most of which had already been committed to approved loans. In essence the Anesthesia Foundation recirculates all the monies that are repaid on loans, and the assets increase only by loan interest income, investment income and gifts from individuals, component societies and industry. As the assets increase, the Foundation increases the number of loans that can be granted in each quarter of the year. Currently there are 12 loans granted per quarter, and the Board of Trustees of the Anesthesia Foundation expects that number to go up later this

year or in 2007 if contributions and investment income increase as expected.

The members of the Board of Trustees of the Anesthesia Foundation and the resident members of ASA certainly appreciate the generosity that has made the aims of the Anesthesia Foundation a reality. We look forward to many more years of helping those in need.



***“The members of the Board of Trustees of the Anesthesia Foundation and the resident members of ASA certainly appreciate the generosity that has made the aims of the Anesthesia Foundation a reality.”***



*William D. Owens, M.D., is Professor Emeritus of Anesthesiology, Washington University School of Medicine, St. Louis, Missouri. He was ASA President in 1998.*

## Barbarians and the Culture of Anesthesiologists

Doris K. Cope, M.D.

The inimitable Peter L. McDermott, M.D., Ph.D., former ASA president (1993) and the 2003 Lewis H. Wright Memorial lecturer, perhaps only half in jest, once observed that the historical aficionados are “the nearly dead talking about the truly dead.” I would like to offer another rationale for the importance of understanding one’s own history as to identify formation between an individual and his/her social or professional group.

In the pre-Christian era, the newly emerging Greek city states marked anyone who did not speak Greek or share Greek customs, gods and ideals as “barbarians,” taken from the sounds that animals supposedly make (e.g., “baar, baar”). This word originally identified as separate “foreigners” or “outsiders” from the evolving identity of the Greek people. With no intentional inference regarding the civility of any of our professional colleagues, I would posit that the study of our history — where we have been, where we have come from and where we are going as anesthesiologists and how we differ from physicians in other specialties — very clearly shapes our identity and self image and ultimately our professional behavior. In a time when business administrators, allied health personnel, legislators and public opinion tempered by media perceptions would pressure us, as anesthesiologists whether we practice in the operating rooms, pain clinics or intensive care units, we must define ourselves not as others see us but as we see ourselves in our best, highest role in society.

Four square against these trends is our self identity and history as the only medical specialty that can truly claim an American birth from the diverse seeds of international medical science. Therefore, whatever our status in medicine, whether as a medical student, anesthesia trainee or senior professional, who we are and what we do and how we see ourselves are inextricably linked to our mutually shared history. Certainly the inculcation of professional values in the young and inexperienced is best served by historical and

contemporary examples. And professionalism, one of the core competencies of our Accreditation Council for Graduate Medical Education (ACGME)-approved training sites, can best and most completely be engendered by an understanding and appreciation of our own history.

How does one come to appreciate his/her family history? First of all, oral stories are told to the young in the course of their training before full self-sufficient adulthood is attained. Many oral legends circulate in our training programs of the pioneers who developed the specialty as well as cautionary tales of the near-misses and misadventures of other anesthesiologists. These stories, or oral histories, have an immense and immediate effect on medical students, residents and fellows and become a part of their medical repertoire with more urgency and retention than facts recorded in a textbook or review article.

But beyond local customs, how do we indoctrinate our trainees into the best and highest standards of professionalism that are our common heritage? May I suggest the study of the history of anesthesiology?

Opportunities abound to not only learn and appreciate medical history but to virtually rub shoulders with those who have created it. The Anesthesia History Association (AHA) holds a very popular dinner meeting at the ASA Annual Meeting with eminent anesthesiologist/medical historians presenting such diverse topics as “The Wounding, Amputation, and Death of Thomas Jonathan ‘Stonewall’ Jackson: An Anesthetic Insight”; “Ambroise Paré and War and Trauma Surgery in the Renaissance”; “Anesthesia, but no Curare: Anesthesia Practice During the Korean War”; “Clinical Problems of War: An Australian Family Memoir – 1899-1946”; “Ethereal Pursuits: In Search of Anesthesia’s Treasures”; and “History of Conjoined Twins.” A spring meeting, usually with eclectic associated tours as well as history, is offered each year. Next year, May 3-5, 2007, to be exact, the AHA Spring Meeting will be held in Nashville, Tennessee, coordinated by Bradley E. Smith, M.D., Emeritus Professor of Anesthesiology, Vanderbilt University. Two tours of local historical sites as well as a full day of presentations are planned.

Periodically the History of Anaesthesia Society of Great Britain cosponsors this meeting and conducts exciting off-site venues. The 21st Annual General Meeting and Scientific Meeting will be held in Dundee, Scotland, on June 28-30, 2007. International Symposia of the History of Anaesthesia are held every four years. The last one occurred September 14-18, 2005, in Cambridge, England, and the 2009 symposium will be held in Crete, Greece.

For those residents with an investigative bent, AHA



Doris K. Cope, M.D., is Chair, Wood Library-Museum (WLM) Laureate of the History of Anesthesia Committee; Chair, Friends of the WLM Committee; Chair, Paul M. Wood Fellowship Committee of the WLM; and Professor of Anesthesiology, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

awards the annual C. Ronald Stephen Resident Essay Award. Interested residents may submit a 1,000- to 3,000-word essay related to the history of anesthesia, pain medicine or critical care. The first-, second- and third-place winners receive a monetary prize of \$500, \$200 and \$100, respectively. The finalists are announced at the AHA's annual dinner meeting and will present their essays at the annual spring meeting where the winners are selected.

**“But beyond local customs, how do we indoctrinate our trainees into the best and highest standards of professionalism that are our common heritage? May I suggest the study of the history of anesthesiology?”**

Opportunities for learning and understanding anesthesia history do not stop with trainees. The Wood Library-Museum of Anesthesiology (WLM) offers four fellowships to residents in training in anesthesiology, practicing anesthesiologists, physicians from other disciplines, historians, graduate students of the history of medicine and others to further develop their interest in library and museum research. The WLM is a world-class museum and library with a professional staff and dedicated Board of Trustees, committee chairs and committee members. The ever-helpful and knowledgeable WLM staff include Patrick Sim, Librarian; Karen Biertman, Assistant Librarian; and Judith Robins, Collections Supervisor. George S. L. Bause, M.D., M.P.H., has served long and faithfully as Honorary Curator of the collection.

This fall, all ASA members and friends are cordially invited to tour the WLM, located at ASA headquarters, 520 N. Northwest Highway, Park Ridge, Illinois, with its innumerable artifacts, rare books and manuscripts that are available for both study and casual inspection. This year during the ASA Annual Meeting, under the direction of Mark E.

Schroeder, M.D., individuals may attend one of two WLM tours being offered on Sunday, October 15, from 12 noon to 4 p.m., and Tuesday, October 17, from 7:30 a.m. to 11:30 a.m., with transportation arrangements to be announced.

Another reasonable way to stay in touch with colleagues across the world and the history community is membership in AHA and “Friends of the Wood Library-Museum.” With either membership, a subscription to the *Bulletin of Anesthesia History* is included. This peer-reviewed journal is indexed in several databases maintained by the U.S. National Library of Medicine and is copublished by AHA and WLM.

There is, in addition to the AHA annual dinner meeting, an annual Friends of the WLM Appreciation Tea immediately after the Emery A. Rovenstine Memorial Lecture at the ASA Annual Meeting. Tea, finger sandwiches and pastries will be shared, new books signed and authors greeted, but mostly it is a time to connect with old friends and make new ones. This year's tea will be held from 12:30 p.m. to 2:30 p.m. in Room E353A, McCormick Place in Chicago. The authors of the centennial book *The American Society of Anesthesiologists: A Century of Challenges and Progress* will be present to greet attendees and sign copies of their excellent book.

Finally the Laureate of the History of Anesthesia is the ultimate international honor bestowed in recognition of the most important contributions to our history. Nicholas M. Greene, M.D., conceived and founded this award with the first laureate named in 1996. The laureate is awarded every four years by the WLM Laureate Committee to an individual who has a demonstrable record of historical scholarship and notable longstanding contributions. The first named laureate, Dr. Gwenifer Wilson of Sydney, Australia, was so honored in 1996. The second named co-laureates were Norman A. Bergman, M.D., F.R.C.A., and Thomas B. Boulton, M.D., Ch.B., F.R.C.A. The third named Laureate was Donald Caton, M.D. The fourth laureate will be honored in 2008 at the ASA Annual Meeting in Orlando, Florida.

Our history, the oral traditions, the people who both made history and celebrate it, comprise a vibrant community within the specialty of anesthesiology. We heartily welcome others to explore and participate. Most of us are not nearly dead yet and look forward to years of scholarship, adventure and camaraderie yet to come.

## Increasing Resident Participation in Clinical Research

Jesse M. Ehrenfeld, M.D.

ASA Resident Component Alternate Delegate to AMA

**R**esidency is a unique time in one's professional career — a period of immense intellectual and personal growth and a time when physicians develop their own practice style. The three to four years that we spend as residents also are a time when there is simply too much material to learn and too little time in which to learn it. Furthermore, as residents, we are constantly faced with difficult choices about which opportunities to pursue during our training, knowing that by choosing one pathway, we will often be excluding another.

Given all of the pressures that residents face and the unique challenges of our field that make leading a balanced life difficult, it not all that surprising that many residents do not pursue research during their clinical training. I would argue, however, that participation in research is paramount to maintaining the vibrancy of our specialty and an important role that must be assumed by all trainees. Conducting research is not only important for the advancement of our specialty but it also is an endeavor that makes us better physicians. Going through the process of learning how to ask research questions makes us better able to critically evaluate the medical literature and is an important skill to acquire.

When asked why they do not participate in research projects, residents often answer either that there is not enough time or that they are simply not interested in research because they do not anticipate an academic career. This is not surprising, given that few programs allow residents protected academic time — unless they have already committed themselves to a full six-month CA-3 research fellowship. Other residents indicate that they do not know where to start or that they are afraid of investing time in a project that might not ultimately succeed. Finally some bluntly assert that they merely want to learn how to administer anesthesia, graduate and go into private practice.

These concerns, whether real or perceived, need not impede one's participation in research. Although it may

### ASA Resident Component: Call for Candidates

**T**he ASA Resident Component House of Delegates will meet on Saturday, October 14 at the ASA Annual Meeting in Chicago. Elections for the ASA Resident Component Governing Council will be held at that time. Any ASA resident member with 18 months left in training (including fellowship) may run.

To learn more, please visit the Resident Component Web site at <[www.ASAhq.org/asarc/index.html](http://www.ASAhq.org/asarc/index.html)>. Candidate statements and curriculum vitae should be mailed to Denise M. Jones, Assistant Executive Director at <[d.jones@ASAhq.org](mailto:d.jones@ASAhq.org)>. Candidate statements are due by **September 15, 2006**.

seem like a daunting task at first, undertaking a project, particularly a clinical study, has never been easier. This is particularly true given the impact and widespread deployment of automated anesthesia record-keeping systems in many academic centers nationwide. These systems make both retrospective and prospective clinical studies easier to conduct because they can allow one to collect large amounts of data quickly and conveniently. This process can allow a clinically relevant question to be answered without spending inordinate amounts of time collecting data. While the impact of these systems has not yet been fully realized, I expect that they will ultimately shorten the time cycle from hypothesis to result by an order of magnitude.

Besides the use of electronic record keeping systems, how can we make clinical research more accessible and less intimidating to residents? First we must emphasize the importance of participation in this type of activity. We must also do a better job of identifying research mentors who can serve not only as guides to residents who are going through the research process but who are also truly invested in their success. Incentives for research productivity, such as the institution of travel stipends for presentations at national meetings or the creation of protected academic/research time to work on projects, would go a long way toward encouraging this type of activity during residency. Finally we need to change the culture of our specialty — to value not just clinical productivity but also research and, more broadly, education. As more and more programs combine the clinical base year with the three years of anesthesia training, there is a unique opportunity to build in more structured research time across the continuum of training. I hope and suggest that we seize this opportunity, which will benefit our specialty as well as our patients.



Jesse M. Ehrenfeld, M.D., is a CA-2 Resident at Massachusetts General Hospital, Boston, Massachusetts. He is the Resident Component Alternate Delegate to the American Medical Association.

## 11 Candidates Announce for Elected Office

**E**leven ASA members recently have announced their candidacies for elected office. The anesthesiologists and the offices they seek are:

### President-Elect

Jeffrey L. Apfelbaum, M.D.

### First Vice-President

Roger A. Moore, M.D.

### Vice-President for Professional Affairs

Alexander A. Hannenberg, M.D.

### Vice-President for Scientific Affairs

Charles W. Otto, M.D.

### Secretary

Gregory K. Unruh, M.D.

### Treasurer

John M. Zerwas, M.D.

### Assistant Secretary

Arthur M. Boudreaux, M.D.

### Assistant Treasurer

Jan Ehrenwerth, M.D.

James D. Grant, M.D.

### Speaker, House of Delegates

Candace E. Keller, M.D.

### Vice-Speaker, House of Delegates

John P. Abenstein, M.D.

The ASA Board of Directors has approved the following regulations for the announcement of candidacies for elected office:

1. On or before August 1 any candidate for ASA office may send to the Executive Office a notice of intent to run for a specific office.
2. The Executive Office shall prepare a list of candidates submitted to be

published in the September issue of the *ASA NEWSLETTER* and the Handbook of Delegates.

3. The announcement for candidacy does not constitute a formal nomination to an office, nor is it a prerequisite for being nominated.

4. Nominations shall be made at the Annual Meeting of the House of Delegates for all candidates as prescribed by the ASA Bylaws.

As approved by the Board of Directors in August 2000, a Candidates' Forum is now available on the ASA Web site. ASA members can view candidates' curricula vitae at <[www.ASAhq.org/candidates](http://www.ASAhq.org/candidates)>.

## ABA Announces ...

### ABA Recertification and Maintenance of Certification Deadlines: 2007-09

**A**BA diplomates certified before 2000 are eligible for either the Maintenance of Certification in Anesthesiology Program® (MOCA) or the Recertification Program. They may apply for MOCA or recertification any time at the American Board of Anesthesiology (ABA) Web site <[www.theABA.org](http://www.theABA.org)>. There is no application fee for MOCA or recertification. Participation in either program will not jeopardize diplomate status.

2009 is the last year in which ABA will offer the examination for recertification. Thus application for recertification must be made no later than **December 31, 2008**.

ABA diplomates certified after 1999 have a time-limited certificate

and must complete the 10-year MOCA program to maintain certification; ABA automatically enrolls them in MOCA when they are awarded initial certification. Users can view their MOCA progress report by accessing their portal account at the ABA Web site. The earliest that diplomates can qualify for examination is three years before certification expires (i.e., 2007 for diplomates with a certificate that expires in 2010).

MOCA and recertification candidates take the same examination. Different forms of the examination are administered annually in January and August, by computer, at more than 350 test centers. The test dates and deadlines by which diplomates

must qualify to take the examination during testing windows in 2007, 2008 and 2009 are:

Test Dates	Qualification Deadline
August 4-18, 2007	March 31, 2007
January 5-19, 2008	August 31, 2007
August 2-16, 2008	March 31, 2008
January 3-17, 2009	August 31, 2008
August 1-15, 2009	March 31, 2009

# Anesthesiology in the News

## Smoke-Free Louisville

**M**ary H. Burkhart, M.D., was named the American Lung Association of Kentucky's 2005 Volunteer of the Year and was featured in a November 2005 *Business First of Louisville* article for her involvement in the "Smoke Free Louisville" campaign.

## Sights and Sounds in O.R.

**A** letter from Richard H. Riley, M.B., B.S., on the music and video practices of surgeons in the O.R. appeared in the March 2006 issue of *The Medical Journal of Australia*.

## Twin Separation

**R**andall P. Flick, M.D., was quoted in a May 13 Associated Press article on the successful separation of conjoined twins Abigail and Isabelle Carlsen. Dr. Flick was the anesthesiologist during the surgery.

## Worry-Free Anesthesia

**T**homas M. McLoughlin, M.D., was interviewed for a June 13 television news segment focusing on easing patient anesthesia concerns that appeared on WFRV-TV, Green Bay and 49 ABC News, Topeka.

## Parents on Pins and Needles

**A** study led by Shu-Ming Wang, M.D., on the effects of acupuncture for anxious parents of children undergoing general anesthesia was featured in a June 20 *Psychology Today* article.

## Tattoos and Epidural Safety

**W**illiam R. Camann, M.D., was quoted in a July 7 *Toronto Star* article on the risks associated with epidurals and lower-back tattoos. Dr. Camann also commented on labor pain and management in a July 23 *Boston Globe* article on the debate between natural and pain-free childbirth.

## No Sponge Left Behind

**T**he *New York Times*, *Washington Post*, *Los Angeles Times*, *Medical News Today* and others reported on a study by lead author Alex Macario, M.D., testing a device to detect sponges imbedded with radio-frequency identification tags. The study appears in the July 2006 *Archives of Surgery*.

## Latest on PONV Drugs

**T**ong J. Gan, M.D., was quoted on the incidence of nausea and vomiting in a July 18 *Health Behavior News Service Study* article focusing on a review of studies examining the effectiveness of postoperative nausea drugs.

## Preoperative Fasting

**A** July 23 *Baltimore Sun* article on required durations for preoperative fasting featured quotes from ASA members Mark A. Warner, M.D., Douglas G. Martz, Jr., M.D., Satyam V. Chary, M.B., and Charles Leve, M.D.

• Letters in response to the *Baltimore Sun* article from ASA President Orin F. Guidry, M.D., appeared in the August 8 *Fort Worth Star-Telegram* and August 11 *Baltimore Sun*.

• A response letter from Richard L. Gilbert, M.D., appeared in the August 8 *Charlotte Observer*.

*The ASA Communications Department is interested in hearing from members who have been quoted in the media. To let us know that you have been interviewed, or for assistance with media relations, contact Donna Habich <d.habich@ASAhq.org> or Brittny Dziadula <b.dziadula@ASAhq.org> in the ASA Communications Department or call (847) 825-5586.*

## 2006 Annual Meeting Activities

The Foundation for Anesthesia Education and Research (FAER) and the other ASA foundations are pleased to join ASA for the Society's 2006 Annual Meeting in Chicago. The following list covers the FAER-planned events at

the ASA Annual Meeting on October 14-18. Please visit the FAER booth in the ASA Resources Center and check our Web site at <[www.faer.org](http://www.faer.org)> for more information and itineraries. We look forward to seeing you in Chicago!

### Friday, October 13

#### *FAER/Abbott Laboratories-Volwiler and Tabern Resident Scholar Program*

The Resident Scholar Program provides anesthesiology residents with the opportunity to attend a national scientific meeting with access to multiple scientific and educational sessions. An informal welcome reception will be held this year to allow the residents more opportunity to meet each other prior to the ASA meeting sessions. It will be held from 8:30 p.m. to 10:30 p.m. in the Hyatt Regency Chicago, Comiskey Room, Concourse Level West Tower.



### Saturday, October 14

#### *Resident Scholars Orientation Program*

Robert A. Caplan, M.D., from Virginia Mason Medical Center, Seattle, Washington, will be the guest speaker. This lecture will explore: 1) The emerging expectation of defect-free health care; 2) Production theories and techniques that enable the delivery of defect-free products and services; and 3) FAER's role as a leader and innovator in defect-free anesthesia. The orientation will be held from 7 a.m. to 8:45 a.m. in the Hyatt Regency Chicago, Columbus Ballroom EF, Ballroom Level East.

#### *FAER Luncheon*

The FAER Luncheon will be held from noon to 2 p.m. in Columbus Ballroom EF of the Hyatt Regency Chicago. The luncheon is held to express FAER's appreciation to individual and corporate sponsors for their support and to strengthen industry relations with FAER, ASA and subspecialty leadership and recent grant recipients. ASA President-Elect Mark J. Lema, M.D., Ph.D., Chair, Roswell Park/University at Buffalo, SUNY, will lead the discussion. Speakers are Evan D. Kharasch, M.D., Ph.D., Professor and Director, Division of Clinical and Translational Research, Washington University, St. Louis, Missouri, who will speak on "Omnes and Omics: Potential Impact on Anesthesiology

Practice" and Mark A. Warner, M.D., Professor of Anesthesiology, Mayo Clinic College of Medicine, Rochester, Minnesota, who will talk about "Minimally or Noninvasive Procedures in the Near Future: How They May Impact Anesthesiology Practices."

### Sunday, October 15

On Sunday, the FAER booth opens in the ASA Resource Center. The FAER booth will feature information on National Institutes of Health Research Training Grants in Anesthesiology and current information about FAER grant recipients, and foundation information will be displayed. As in the past, the booth will be staffed by FAER award recipients, board members and staff to answer your questions.

### Monday, October 16

#### *ASA Centennial Gala*

The 2006 ASA Centennial Gala Benefit will be held in Chicago on Monday, October 16, 6:30 p.m. to 10 p.m., in the Grand Ballroom, Hyatt Regency Chicago. The benefit dinner will be held in behalf of the four ASA foundations: FAER, the Anesthesia Patient Safety Foundation (APSF), the Wood Library-Museum of Anesthesiology (WLM) and the Anesthesia Foundation (AF). Attendees at the black-tie-optional event will enjoy an evening with friends and colleagues as they remember the last, and welcome the next, 100 years of ASA. The Centennial Gala will be the culmination of a prolonged collaborative effort by FAER and the ASA Committee on ASA's 100th Anniversary. The Master of Ceremonies will be Peter L. McDermott, M.D., Ph.D., and entertainment will be provided by The Second City. If you wish to be placed on the Centennial Gala wait list, please go to the FAER Web site at <[faer.org](http://faer.org)> and submit a Centennial Gala wait list form to the FAER office. On behalf of ASA, AF, APSF and WLM, we at FAER thank you for your participation and hope to see you in Chicago!



*Continued on page 44*

## Monday, October 16 (continued)

### *Celebration of Research*

The 2006 session will be held from 12:30 p.m. to 2 p.m. in McCormick Place Room E450 A-B. This year the event will recognize the Award for Excellence in Research and Residents' Research Essay Award recipients who will present overviews of their work.

### *Sixth FAER Honorary Research Lecture*

The 2006 FAER Honorary Research Lecture will be presented by Paul D. Allen, M.D., Ph.D., Professor of Anesthesia, Harvard Medical School, Boston, Massachusetts, and Director of Renal Transplant and Vascular Access Anesthesia, Brigham and Women's Hospital. His presentation "Calcium: This Is Everything" will be presented from 2:15 p.m. to 3:15 p.m. in McCormick Place Room E450 A-B.

### *FAER Panel*

Ronald G. Pearl, M.D., Ph.D., Professor and Chair of Anesthesia, Stanford University Medical Center, Stanford, California, will moderate the 2006 FAER Panel "Translating Future Paradigms to Reality: Anesthesia Research and Education in the Next Decade" from 3:15 p.m. to 5:15 p.m. in Room E450 A-B, McCormick Place. Topics and panelists are:

- "The Use of Stem Cells in Tissue Engineering," Charles A. Vacanti, M.D., Vandam/Covino Professor of Anesthesia, Harvard Medical School, Anesthesiologist-in-Chief, Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Boston, Massachusetts;

- "The Future of Immersive and Simulation-Based Learning," David M. Gaba, M.D., Associate Dean for Immersive and Simulation-Based Learning and Professor of Anesthesia, Stanford University School of Medicine and

Director, Patient Simulation Center of Innovation, VA Palo Alto Health Care System, Palo Alto, California;

- "New Approaches to Drug Development," Kazimierz Babinski, Vice-President, Drug Development, PainCeptor Pharma Corporation, St-Laurent, Québec, Canada; and

- "Computational Genomics: Toward Understanding Our Drugs and Our Diseases," Gary Peltz, M.D., Ph.D., Head, Department of Genetics and Genomics Roche Palo Alto, Palo Alto, California.

## Tuesday, October 17

### *Medical Student Anesthesia Research Fellowship Symposium*

As part of the FAER Medical Student Anesthesia Research Fellowship, FAER offers students the opportunity to make a research presentation during the ASA Annual Meeting at the FAER Medical Student Anesthesia Research Fellowship Symposium. The 2006 symposium will be moderated by Donn M. Dennis, M.D., FAHA, FAER Director, the Joachim S. Gravenstein, M.D., Professor of Anesthesiology and Director of Nanomedicine at the University of Florida College of Medicine, Gainesville, and Vice-President of Pharmacology at ARYx Therapeutics, Inc., Fremont, California. The symposium will be held on October 17 from 3:30 to 5 p.m. at the Hyatt Regency Chicago.

### *FAER/Abbott Laboratories-Volwiler and Tabern Resident Scholar Program Reception*

FAER/Abbott-Volwiler and Tabern Resident Scholar Program Reception attendees include the 2006 Resident Scholars, ASA officers, FAER Board members and staff. The reception will be held on Tuesday, October 17, from 6:30 p.m. to 8:30 p.m. in the Hyatt Regency Chicago, Plaza Ball Room, Main Entrance Level East Tower.



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**ID - Matthew J. Wood, M.D.**  
Donald J. Fox, M.D.

**IL - Rodney C. Osborn, M.D.**  
Kenneth J. Tuman, M.D.

**IN - Gerard T. Costello, M.D.**  
Robert W. Brandt, M.D.

**KS - Karl E. Becker, Jr., M.D.**  
James D. Kindscher, M.D.

**KY - Linda F. Lucas, M.D.**  
Raymond J. Sullivan, M.D.

**LA - Mack A. Thomas, M.D.**  
H. Jerrel Fontenot, M.D., Ph.D.

**MA - Fred G. Davis, M.D.**  
Michael H. Entrup, M.D.

**MD - Murray A. Kalish, M.D.**  
A. Terry Walman, M.D.

**ME - Christopher W. Cary, M.D.**  
Ray J. Nichols, Jr., M.D.

**MI - James D. Grant, M.D.**  
David L. Dull, M.D.

**MN - Brian P. McGlinch, M.D.**  
Craig M. Johnson, M.D.

**MO - Donald E. Arnold, M.D.**  
Thomas E. Saak, M.D.

**MS - Claude D. Brunson, M.D.**  
Paul W. Pickard, M.D.

**MT - Mike P. Schweitzer, M.D.**  
Gregar H. Lind, M.D.

**NE - Charles D. Gregorius, M.D.**  
K. Reed Peters, M.D.

**NH - Timothy J. Quill, M.D.**  
Steven J. Hattamer, M.D.

**NJ - Kenneth I. Mirsky, M.D.**  
Aryeh Shander, M.D.

**NM - John H. Wills, M.D.**  
(Vacant)

**NV - Christopher G. Millson, M.D.**  
Danial O. Laird, M.D.

**NY - Kenneth J. Freese, M.D.**  
Scott B. Groudine, M.D.

**NC - Gerald A. Maccioli, M.D.**  
Frank H. Moretz, M.D.

**ND - John C. Chatelain, M.D.**  
Maxwell W. Gessner, M.D.

**OH - Thomas B. Bralliar, M.D.**  
Patricia J. Davidson, M.D.

**OK - Lawrence J. Roy, M.D.**  
Charles V. Stewart, M.D.

**OR - Richard R. Johnston, M.D.**  
Norman A. Cohen, M.D.

**PA - Paul J. Schaner, M.D.**  
Donald E. Martin, M.D.

**PR - Francisco J. Torres-Sierra, M.D.**  
(Vacant)

**RI - Richard A. Browning, M.D.**  
Deborah Cahill, M.D.

**SC - Vincent J. Degenhart, M.D.**  
Christopher A. Yeakel, M.D.

**SD - Robert G. Allen, Jr., M.D.**  
Robert J. Lunn, M.D.

**TN - James M. West, M.D.**  
W. Bradley Worthington, M.D.

**TX - Mary Dale Peterson, M.D.**  
James P. McMichael, M.D.

**UT - Paul N. Clayton, M.D.**  
W. Curtis Peterson, M.D.

**VA - Stephen P. Long, M.D.**  
William P. Arnold III, M.D.

**VT - Joel H. Mumford, M.D.**  
Frederick M. Perkins, M.D.

**WA - Peter J. Dunbar, M.D.**  
Mark F. Flanery, M.D.

**WI - Ashok R. Krishnaney, M.D.**  
Robert E. Kettler, M.D.

**WV - Robert E. Johnstone, M.D.**  
Timothy R. Deer, M.D.

**WY - Todd M. Witzeling, M.D.**  
Kerry D. Morrison, M.D.

**USSA - Paul D. Mongan, M.D.**  
Darin K. Via, M.D.

**Academic - Steven J. Barker, Ph.D., M.D.**  
Lydia A. Conlay, M.D., Ph.D.

**Resident - Benjamin D. Unger, M.D.**  
Paloma Toledo, M.D.



# Chicago

## **ASA 2006 Annual Meeting October 14-18, 2006**

Registration opens at 3 p.m. Friday, October 13,  
at McCormick Place, Chicago