

WFU Department an Integral Part of the Anesthesia Patient Safety Foundation (APSF)

By Richard C. Prielipp, M.D., FCCM, and Robert C. Morell, M.D.

Although anesthesiologists constitute only 5% of U.S. physicians, anesthesiology is acknowledged as the leading medical field in addressing issues of patient safety. Several members of the WFU Department of Anesthesiology are important contributors and leaders in this movement and its primary organization, the Anesthesia Patient Safety Foundation (APSF). Departmental safety specialists include *APSF Newsletter* associate editor Robert C. Morell; members of the APSF Committee on Education and Training, Richard C. Prielipp (Chair), and Tim N. Harwood; and Michael A. Olympio, who is a member of the APSF Committee on Technology.

What is the APSF and how did it get started?

Three key factors provided the impetus to form the APSF in 1985. First, old notions of anesthesia being a boring field crumbled, and anesthesiology attracted the best and the brightest medical students, who expected to practice in areas including intensive care, pain management, perioperative clinical care, and administration. By their nature, these clinicians tended to be risk averse and interested in patient safety because anesthesia is without therapeutic benefit of its own. Second, malpractice insurance in the United States for anesthesiologists in the 1970s and 1980s soared, and there was a real risk it would be unavailable at any price. This malpractice crisis galvanized the profession and industry at all levels. Third, strong leaders emerged who were willing to admit that patient safety was imperfect and could be studied to achieve better outcomes.

These forward thinking individuals included Ellison C. Pierce, Jr., M.D. (currently Executive Director of the APSF), and Jeff Cooper, Ph.D.

(Executive Committee of the APSF), who organized an International Symposium on Preventable Anaesthesia Mortality and Morbidity. In 1984, Pierce held a one-year term as President of the American Society of Anesthesiologists during

which he formalized patient safety by starting the Committee on Patient Safety and Risk Management. The following year, also under his leadership, the APSF was formed to deal exclusively with issues of anesthesia patient safety. The mission of the Anesthesia Patient Safety Foundation is simple and direct:

... to assure that no patient shall be harmed by the effects of anesthesia.

The Foundation has several prominent activities. Perhaps most visible is the quarterly newsletter which is distributed to every anesthesiologist and nurse anesthetist in the U.S. This quarterly newsletter provides a forum for current news, debate, and scholarly materials to over 60,000 anesthesia personnel. Another major activity is a research grant program. Again, our faculty have made significant strides in safety research. Two research grants have recently been directed to Wake Forest University:

“Ulnar Nerve Injury in the Perioperative Period: Role of Arm Position and Nerve Compression” (1997-1999), Richard C. Prielipp, P.I.;

“Effects of Gender on Ulnar Nerve Dysfunction Induced by Stretch, Pressure, Ischemia, or Positioning” (2000-2002), Robert C. Morell, P.I.

The APSF grant program has funded a variety of important research projects that would probably never have been funded by any “traditional” agency. Recently, the contributions of the APSF to the Medical School have been formally recognized with a plaque in the Gallery of Founders in the Medical Center’s Ardmore Tower.

APSF Plans Special Spring Issue

The Anesthesia Patient Safety Foundation will devote its spring issue to the question “Is Patient Safety Being Eroded?” Drs. Richard Prielipp and Robert Morell of this department are the co-editors.

ON THE CALENDAR

Oct. 29-Nov. 1

Sixth Annual Advances in Physiology and Pharmacology in Anesthesia and Critical Care, The Greenbrier, White Sulphur Springs, West Virginia

Hosted by the Department of Anesthesiology. Lectures on physiology and pharmacology by internationally recognized speakers. For further information contact Jan Killmeier at 336-716-2712, Fax: 336-716-8190, or e-mail: killmeier@wfubmc.edu.

Nov. 11

Symposium and Retirement Gala for Dr. Frank James, Winston-Salem, NC

Five guest lectures for the morning’s symposium; dinner in the evening at Old Town Country Club. Invitations went to current and former residents, fellows, and faculty of this department and others in the medical community. RSVP for dinner by October 27. For further information, please contact Jan Killmeier.

May 23-27, 2001

Outcomes 2001: The Key West Meeting, Key West, Florida

Jointly organized by David Stump, Ph.D., of this department and John Murkin, M.D., of the University of Western Ontario. Check the conference website at www.outcomeskeywest.com, and for abstract kits, contact Peggy Rachels at (336) 716-7194, FAX: (336) 716-3909, or e-mail: prachels@wfubmc.edu. Abstract submission deadline: March 1, 2001. Proceedings published in *The Annals of Thoracic Surgery*.

Alumni, What Do You Think about This?



By Raymond C. Roy, Ph.D., M.D.
Professor and Chair

Residency training costs money – approximately \$500,000. This amount includes the costs associated with interviewing resident applicants, the spending allowances for each of 55 residents and fellows, the travel and meeting expenses of residents who are presenting at regional and national meetings, partial or full salary support for three staff positions, computers and improvements to the residents’ lounge and study areas, new books, educational tapes, and programs for the library, conference handouts and audiovisual aides, visiting professors, the graduation party, the patient simulation laboratory, the nerve anatomy dissections, the anesthesia machine workshops, and the South Africa rotation. This amount does not include resident or faculty salary support. North Carolina Baptist Hospital reimburses about \$200,000. The remaining \$300,000 is paid out of clinical revenue.

To preserve the residency at its current high level, I would like to protect the money we spend on residency education from any potential downturn in clinical revenue or hospital reimbursement. One way is to “build a fire wall” between clinical revenue and money set aside for anesthesia residency education by establishing an **Anesthesia Residency Education Endowment**. A portion of the interest from this endowment, approximately 5% of the principal as governed by university rules, would be used to defray the costs of anesthesia residency education each year. The remaining interest would be used to increase the principal, also as required by university rules.

Currently money is being raised to endow a second anesthesia chair. *I believe it would be better to use past cash donations toward this second chair (totaling approximately \$275,000), not to establish the second chair, but to become the basis for the Anesthesia Residency Education Endowment.* I would then encourage that all future cash donations go to the Anesthesia Residency Education Endowment. What do you think about this? Please write, call (336-716-4497), FAX (336-716-3394), or e-mail (rroy@wfubmc.edu) your thoughts and concerns.



Shawn Thomas, M.D., CA-1, takes charge of a case in the new Patient Simulation Laboratory. An Anesthesia Residency Education Endowment would help fund this lab and other components of the residency program.

I will discuss your comments in the next issue of the *Anesthesia Monitor*.

One advantage of this approach is that 5% of any cash contribution can be used for residency costs in the upcoming year (and for no other purposes). Money donated toward an endowed chair cannot be used until the chair is established, which could take more than 10 years because a \$1.5 million threshold amount is required. Another advantage is that former residents are more likely to support the current residency program than to support the salary of a faculty member in the future. But I do believe that donations from estates should be directed toward establishing additional chairs of anesthesia that could be used to retain or recruit outstanding faculty.

The proper name for this endowment should also be given some thought. Again, what do you think?

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–Ray Roy

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Raymond C. Roy, Ph.D., M.D.,
Chair

Wilson Somerville, Ph.D.,
Editor

Biomedical Communications
Design and Production

For more information
please write or call:

The Department
of Anesthesiology
Wake Forest University
School of Medicine
Medical Center Boulevard
Winston-Salem, NC
27157-1009
(336) 716-4498
FAX: (336) 716-8190

<http://www.wfubmc.edu/anesthesia>

A Chief Resident's Perspective

by Bryant Murphy, M.D., Chief Resident



As I enter my final year of anesthesiology residency, I have been privileged to see not only how far our field has come, but also where the future will lead us. By being at Wake Forest University Baptist Medical Center since I graduated from college, I have been able to see our program grow and prosper over the last eight years. During this time, we have seen many changes in our specialty. Changes in preoperative testing, the focus and emphasis

on outpatient surgery and shorter hospital stays, new faster acting drugs, and more sophisticated monitoring have served to keep us up-to-date and create the necessity for continued learning. There has also been an increasing call for the anesthesiologist to become more of a “perioperative physician” and not simply a technician who provides anesthesia. In spite of all of these changes, we have adapted and continue to be one of the dominant anesthesiology programs in the country.

One of the major changes has occurred in the job market. In 1996 I attended a conference of the Student National Medical Association, while serving as a member of their Board of Directors. The keynote speaker at the closing banquet, who was not an anesthesiologist, told the audience of over 1000 medical students that anesthesiology was a dying field and there would be no jobs in four years. She felt that the only jobs for anesthesiologists would be supervising CRNAs. I am pleased to say that not only was her prediction flawed, but also the pendulum has swung in the other direction. This is evidenced by the future plans of the current CA-3 residents. Of the 11 residents, 3 had secured employment and 5 had secured fellowship positions as of late September.

Another testament to the success of our specialty is the number of medical students choosing to enter anesthesiology. The numbers in the past few years have been increasing and are up dramatically from a nadir during the mid-1990s.

The other major changes in our field are taking place in the legislative arena. Several issues currently on the table will have dramatic effects on the way that we practice anesthesiology. The issue of CRNA supervision is currently being debated as the Health Care Financing Administration decides whether to change the rules regarding physician supervision. I have been to several state and national meetings, and regardless of your opinion it is important to be involved so that your voice will be heard. Other important legislative issues include billing and reimbursement; fraud, waste and abuse; and rules concerning safety at outpatient surgical centers.

As anesthesia residents it is extremely easy to get caught in the daily routine of doing cases, seeing preops, and reading for grand rounds. I have begun to realize that after our four years here the real world awaits, and the choices that we make today can and will affect the way that we will practice anesthesia tomorrow.

Anesthesia Patient Safety Foundation

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Patient Safety in Anesthesiology – Still Miles to go.

Despite a proud record of significant accomplishments, many unresolved patient safety issues remain, including the following:

- The dangers of (unregulated) office-based anesthesia are widespread (see the spring 2000 *APSF Newsletter* Special Edition on this topic [vol. 15, no. 1]). Indeed, on August 10, 2000, the Florida Board of Medicine instituted an emergency moratorium on level 3 surgery performed in physicians’ offices. They note that despite the Board’s attempts to strengthen patient protections, 20 adverse injuries related to office procedures occurred in 6 months, including 5 deaths. Many of these procedures are related to plastic or cosmetic surgery, including liposuction (see review of the dangers of liposuction in the summer 1999 *APSF newsletter* [vol. 14, no. 2]).
 - The true reduction in anesthesia-related adverse outcomes may not be as great as the purported drop in mortality due to anesthesia alone for healthy patients having routine surgery. The problem of errors, mistakes, and system failures continues to plague anesthesiology along with the rest of health care, as noted in the Institute of Medicine report issued in November 1999.
 - There is growing recognition that patient safety efforts should be expanded to the ICU. We now know that nearly one-half of adverse events in hospitalized patients are associated with the perioperative period. Indeed, one patient admission out of ten to the ICU is actually precipitated by iatrogenic events in hospitalized patients.
 - Death or brain damage still occurs from hypoxemia after esophageal intubation or from other easily detectable and correctable events.
 - The most basic standards are not always followed—anechdotes still persist of anesthetized, paralyzed, and ventilated patients being left without an anesthetist in the room.
 - Clinicians still practice when fatigue, illness, or stress compromises vigilance.
 - Even our newest and best equipment remains beset by problems of human ergonomics. Knowledge and training of clinicians regarding anesthesia and ICU equipment often remain sub-optimal.
- Thus, while much has been accomplished, much is left to do. We encourage your participation and support in the APSF nationally, and active involvement at the local level in your hospital operating rooms. Success often begets more success, as various safety advances that start with anesthesia practitioners and in anesthesiology are frequently an important model for the rest of health care throughout the hospital. We hope you will help to achieve the full promise of patient safety.

Frank James Looks Ahead

In the *Four Quartets* T.S. Eliot says that we “ought to be explorers” as we grow older, not retreating, but setting out again. What exploring then does Frank James intend after his retirement on December 31, 2000, after a noteworthy 32 years in this department, 15 of them as chair, and leadership service in national anesthesia organizations? To give some idea, James spoke in a recent interview about his plans. Reported in part here, these aspirations build on a remarkable personal history of family and community involvement.

Español

For starters, at age 65, James plans to learn Spanish. “I realize that’s going to be a challenge when you reach my age because it’s physiologically much more difficult to learn a foreign language as you get older,” James said. But undergraduate testing showed that James had a special aptitude for languages. So now he will switch from complex medical terminology to Spanish declensions. Why Spanish? After learning Spanish, James wants “to put it to use in the community in some way, either through the United Way, Sunnyside Mission, or a local medical agency, such as Reynold’s Health Center” in order to help “Latino clients with medical needs. These are people who have no insurance or resources. In some way or other I want to help the growing Latino community in Winston-Salem and Forsyth County.”

Well-Being

Learning Spanish is but one example of new ventures James anticipates. He looks forward to more opportunity for travel with his wife, Dell James, and for visiting one daughter, Lacy James, a successful dancer and choreographer in New York City, and another daughter and a son-in-law, Martha and John Love (she is a UCLA psychiatry resident, and he, a public defender in Los Angeles). In Winston-Salem, son Frank James, a financial manager who is enrolled in the WFU executive MBA program, and his wife, Lena, an attorney, will benefit more than ever from the help of the James grandparents in taking care of their two children. One can expect, then, to see more of Frank James at SciWorks and sports events, grandchildren in tow.

Travel to remote areas, such as a canoe trip Frank and Dell took to the Quetico Boundary Waters along the Minnesota and Canadian border several years ago, probably is in the past, since he had a heart attack in 1999. As a result, he states, “You don’t want to get too far away from where you can get help if you need it. I’m fine right now as far as I know, but once you’ve had a problem, it’s a wake up call.” James works out regularly on his NordicTrack and has long held to a fitness regimen. He says, “I want to maintain the best physical shape I possibly can, not that I think that’s going to make me live any longer, but hopefully it will allow the quality of my life to be a lot better. I certainly feel better, I sleep better, I’m more alert when I maintain some semblance of physical fitness.”

Public Service

Locally, James will continue working with Dell in the Stephen Ministry at the Home Moravian Church where they are members. The program trains church members to serve as listeners and sup-



Frank James retires at the end of December after 32 years in the department.

porters for others in the congregation going through periods of crisis. James has also arranged with Dean James Thompson to continue after retirement as the Medical School’s representative to the United Way, a role James has had for several years. He will take on some new work with that agency, and will also continue on the Board of the Experiment in Self-Reliance. “The whole goal of the ESR,” explains James, “is to help relieve poverty within the city and to help people become self-sufficient. It’s an agency that addresses the working poor and tries to come up with long-term solutions” for families.

In anesthesia circles, James will continue serving on the executive committee of the American Board of Medical Specialties, and on an American Society of Anesthesiologists (ASA) ad hoc committee that is looking at the structure and governance of the ASA. Although James steps down in December from his post as Associate Dean for Graduate Medical Education, which he has held for two

years, a number of initiatives in that area will continue to bear his stamp. For example, he speaks enthusiastically of his recent work in helping the Medical School develop a common curriculum for all house officers. This program, still developing, will require all residents at this Medical School to review 34 presentations on medical topics spanning the residency programs here. Each resident will receive a CD-ROM containing these presentations and will be responsible for reviewing them by the end of the third year of training.

Lines of Influence

James will be involved in his own form of computer learning post-medical school as he takes on his family’s genealogy. Equipped with CD-ROMs and a book on genealogy that his children gave him last Christmas, he is ready to explore the James lineage. His early inquiries have led to one surprise so far: James has found that many of his relatives came from Richmond and Petersburg, Virginia, so that he has roots south of his favored Philadelphia birthplace. This Virginia heritage stands to reason, since, as Richmonders know, the name of James (read *river*) has long been associated with greatness.

Genealogy work dovetails well with James’s long-standing interest in medical history. While chair he compiled notes and clippings on the history of anesthesia and this department that are the core of the department’s history archives. Further, he looks at his role in the department as part of a continuum, call it the Penn connection. Indeed, the chairs of this department to date, Tom Irving, Frank James, and now Ray Roy, are all graduates of the Penn anesthesia residency program. And another Penn anesthesiology graduate who served briefly at this Medical School in the mid 1960s, Caryl Guth, was instrumental in recruiting Irving for the fledgling department.

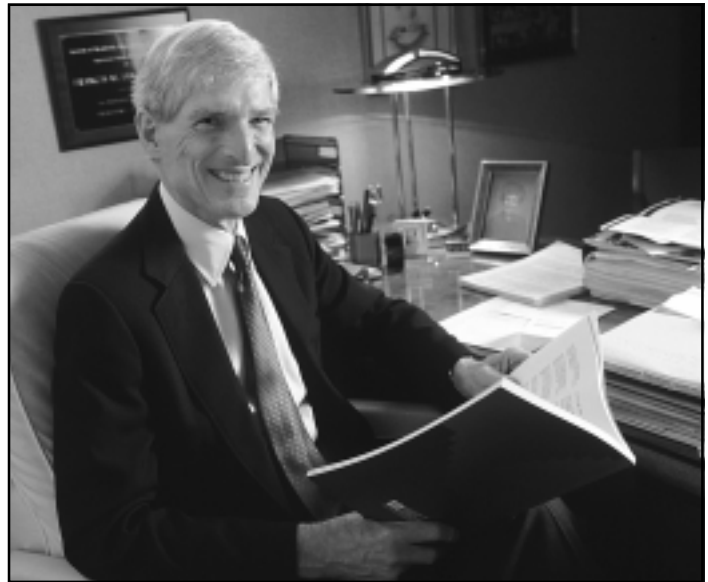
James states that he has oriented his professional life along the model set by his great mentor Robert D. Dripps at Penn. “If I were to look at the five top people who influenced my life, certainly Dr. Robert Dripps had to be one of those people,” notes James. “I think one of the things that was very impressive about him was that he continued to learn and to be open to new ways of doing things. The stan-

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Some Notable Encounters with Frank James

Frank has many strengths and few weaknesses. One of my first interactions with Frank was being examined by him and Roger Royster during practice oral board exams when I was a fellow in 1985. I recall that experience as being more stressful in many ways than the real thing, since it was odd to be examined by the chairman at the institution where you work. One of Frank's strengths is his dedication to the development of the specialty in general and our department in particular. Both are reflected in his work with the American Board of Anesthesiology. I think he has helped set the tone for that organization not only to move forward in the process of evaluation, but also in the process of shaping the specialty and its focus on physiology and on pain treatment. At the same time, he has been a strong advocate to get individuals from our department into the examination system, which has led to two former or current department members as Directors of the board, and numerous individuals recognized nationally due to their participation in that endeavor.

My next interaction with Frank may have reflected a relative weakness. I was new in the laboratory, where Frank had done some work on spinal anesthesia induced hypotension in pregnant sheep, and had an appointment to speak with Frank about my fellowship. I came into his office with graphs and a lot of enthusiasm, showing him how I had devised a way to heat the skin of the sheep resulting in a skin twitch reflex which could be used as a measure of nociception and to test new analgesics. After going on about this for many minutes, I noticed that there wasn't much response from the other side of the table, and stopped to ask what he thought. With raised eyebrows he asked, "You're going to cook their skins?" After that I conveyed research results to him in broad strokes. Although basic research clearly was not a key interest of Frank, he was incredibly supportive of me and others in the department who wanted to establish and lead basic research efforts.



Frank James, at the department's helm from 1983 to 1998.

I have many things to thank Frank for, and I'm sure several will stand up and list a few of them during the 'roast and toast' at his retirement dinner on Nov 11. One I certainly won't forget was a lunch in France. I was on sabbatical in Paris in 1995 and Frank and Dell came for a couple of days after visiting friends in England. They wanted to visit the country home of Monet, and I offered to drive them there. We didn't leave until late that morning, and after we got out of the city, I suggested we stop for lunch at a country restaurant. Frank insisted on paying, and I agreed, as restaurants in that area are usually not expensive, and we planned something simple. Several courses and a few hundred dollars later, I was most grateful to have my chairman with me.

Frank James Looks Ahead

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dards that he expected people to meet, the curiosity that he had, his devotion to his department—those all made him a very good role model." This line of leadership goes back through James and Dripps to Ralph M. Waters, one of the early twentieth century pioneers in anesthesiology with whom Dripps studied. The leadership line now extends out from this department, with a number of current faculty contributing to national and international scientific organizations through governance, editing, and research. Notably, during James's tenure as chair, eight former department faculty moved on to head other departments around the country.

Other Employments

How can one carry this sense of long-standing, invigorating connection into retirement? What is James's word to those anesthesia faculty 10 years or so away from stepping down? "Faculty need to have involvement outside their job," he says. "They clearly do. If

work has been your entire life when it comes time to retire, there is an emptiness there that's pretty hard to fill. You need throughout your life to be involved in your community, have some source of support outside of your work place. It's a great way to relieve stress, to have support, to be a little more secure in your life when there are bad times. It also provides you with interests outside of work which give you some perspective on life, which is important. And particularly right now with this Medical Center being the largest employer in the city, we, as people who work here, need to give back to the city."

Then there's the attic. "Cleaning out my attic is going to be a major activity. I'll actually have a good time at that," states James. That exploration will yield its own finds. But mainly, an attic is just an attic, and occasionally has to be cleared out. Frank James is ready for that, too.

Announcing New Faculty

Randy Calicott, M.D., joined the department in July as an assistant professor with generalist responsibilities, having been an anesthesiologist at Wilford Hall Medical Center, Lackland Air Force Base, Texas (1996-1998) and at the United States Air Force Academy Hospital in Colorado (1998-2000). Calicott completed his M.D. at the University of Tennessee Center for the Health Sciences, Memphis, Tennessee (1988-1992) and his residency at Wilford Hall Medical Center (1993-1996) where he received the Arthur B. Tarrow Research Award and was named a Distinguished Graduate.

Gavin Elliott, M.D., returned as an assistant professor in April of this year to bolster the general anesthesiologists. He backs up Debbie Whelan, M.D., Medical Director of the Inpatient Operating Rooms, when she is away, and will be using data from the soon-to-be-installed electronic anesthesia record to suggest ways to better manage operating room activities. From 1991 to 1997 Elliott was a member of the Section on Pediatric Anesthesiology and served as Clinical Coordinator of Pediatric Anesthesia. In his time away from the department, Elliott worked in private practice as Director of Pediatric Anesthesia at Southern Maryland Hospital Center, Clinton, Maryland (1997-1999), Medical Director of Civista Surgery Center, Waldorf, Maryland (1999-2000), and as a member of Fort Washington Anesthesia Associates, Fort Washington, Maryland (1999-2000).

Weiya Ma, M.D., Ph.D., joined the department's Pain Mechanisms Lab team August 1 as an assistant professor. Before coming to WFU, Ma was a Postdoc Fellow at the Douglas Hospital Research Center of McGill University, Montreal, Quebec, Canada (1998-2000). She received her M.D. (1982) and M.Sc. (1986; specialty: neuroanatomy) from Tongji Medical University, Wuhan, P.R.China, and her Ph.D. (1995) from McGill, with a specialty in neuropharmacology. Ma's current research interest is the role of neuropeptides in neuropathic pain caused by nerve injury.

Chuanyao (Chuck) Tong, M.D., began as an assistant professor in the department's Section on Neuroanesthesia in July, just after completing his anesthesia residency here. Before that clinical training, Tong contributed significantly to department research as a Research Fellow (1989-1991) and as a Research Assistant Professor in the Section on Obstetric Anesthesia (1991-1996). He received his M.D. from Shanghai Medical University, Shanghai, China (1983), and completed an anesthesia residency (1989) and Research Fellowship in Anesthesia (1989) at Shanghai First People's Hospital where he was named Outstanding Resident in 1987 and 1988, and Outstanding Youth Doctor in 1987.

Departures

Congratulations to the following residents and fellows who completed our program in 2000. We wish you well.

Residents

- **Joseph A. Arndt, M.D.**
• Appleton Medical Center
• Appleton, WI
- **Mario A. Camps, M.D.**
• Brevard Anesthesia Services, P.A.
• Melbourne, FL
- **Bryan M. Carey, M.D.**
• North Fulton Anesthesia Associates
• Alpharetta, GA
- **Alan B. Carter, M.D.**
• Central Kentucky Anesthesia, PSC
• Lexington, KY
- **Stephen D. Goerz, M.D.**
• Georgetown Memorial Hospital
• Georgetown, SC
- **Michael J. Poss, M.D.**
• Anesthesia Associates of Roanoke
• Roanoke, VA
- **Mary N. Shah, M.D.**
• Iowa City, IA
- **Trevor K. Smith, M.D.**
• Greenville Anesthesiology, P.A.
• Greenville, SC
- **Chuanyao "Chuck" Tong, M.D.**,
• Assistant Professor
• Wake Forest University School
• of Medicine
• Winston-Salem, NC
- **M. Nadine Van Wyk, MBCHB**
• Fellowship at Boston Children's
• Hospital
• Boston, MA
- **Adam C. Wright, M.D.**
• Bayshore Anesthesiology Group
• Pasadena, TX

Fellows

- **Louis D. Bojrab, M.D.**
• Michigan Pain Institute
• Ann Arbor, MI
- **Timothy Jones, MB, BS, FRCS**
• Queen Elizabeth Hospital
• Birmingham, United Kingdom
- **De-Pei Li**
• Penn State
• Hershey, PA
- **Xavier Paqueron, M.D.**
• University of Paris
• Paris, France
- **Ryan N. Potter, M.D.**
• Christus Spohn Hospital Shoreline
• Corpus Christi, TX
- **Arjav J. Shah, M.D.**
• University of Iowa
• Iowa City, IA
- **Steven V. Sherman, M.D.**
• Rex Practice Center
• Raleigh Anesthesia Associates, Inc.
• Raleigh, NC
- **Joseph Y. Vanden Bosch, M.D.**
• Michigan Pain Consultants, P.C.
• Grand Rapids, MI
- **Robert B. Wilson, M.D.**
• Rowan Regional Medical Center
• Salisbury, NC
- **Zhihong Zhao**
• Columbia University
• New York, NY