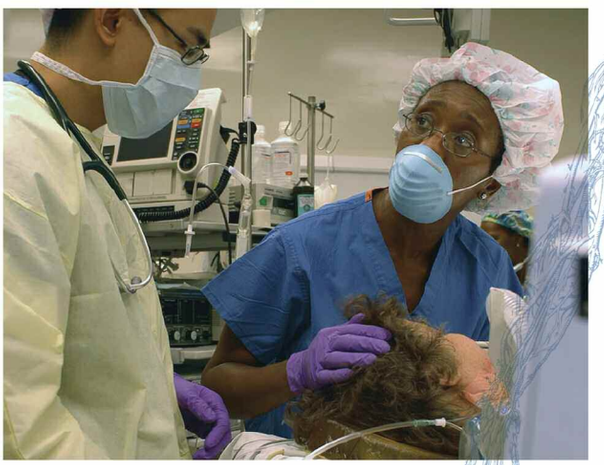
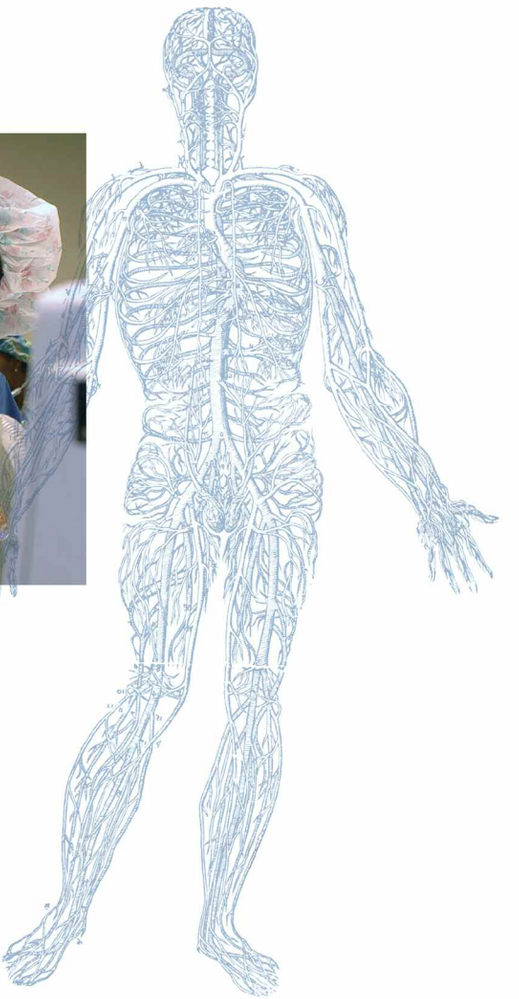
University of Maryland School of Medicine

Department of Anesthesiology

Annual Report 2009





Living Quality, Safety and Excellence

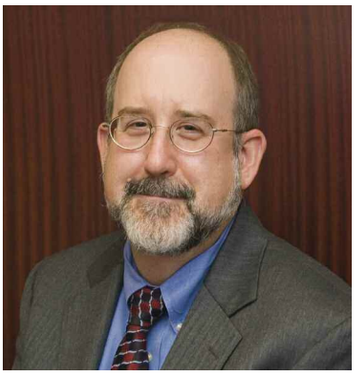

INFORMATION

Our Mission:

Healing, Teaching, Discovering, & Leading

When it comes to hospital experiences, patients tend to think of how comfortable they were. How quickly were their needs met? How did they feel after surgery...or before? Was their pain controlled well?

So many of the answers to these questions lie in the hands of anesthesiologists — those delivering the care, teaching the physicians of tomorrow, and conducting research to make the anesthesia experience even better for patients.



The mission of the Department of Anesthesiology at the University of Maryland School of Medicine and the University of Maryland Medical Center is multifold: to deliver state-of-the-art anesthesia services to patients; to educate students, residents, and fellows; to be recognized for our contributions to the specialty of anesthesiology through education, research, and scholarly activities; and to contribute to the success of the University of Maryland Medical School and Medical System.

Anesthesiology at the University of Maryland Medical Center has a history as rich as the city of Baltimore itself. Anesthesiology as a medical discipline at the University of Maryland Hospital began in 1913 with Dr. Griffith Davis, the only physician in Baltimore who practiced anesthesiology full-time. The residency program was established in 1946 with a team of five residents.

Today, the department administers over 25,000 anesthetics, has approximately 3,500 patient encounters in the Pain Management Center, and provides nearly 15,000 patient-days of care in intensive-care units each year. Those numbers are expected to increase even further as the population ages and our clinical facilities and faculty expand.

Anesthesiologists in our department have access to a varied caseload, in part due to the different locations where we provide services: the University of Maryland Medical Center, the Shock Trauma Center, the Baltimore VA Medical Center (located on our main campus), and Kernan Hospital. Such diversity of care leads to a broader education for our physicians — and that means better care for our patients.

In addition to physicians, certified registered nurse anesthetists (CRNAs) are important members of our team. At the University of Maryland, CRNAs work in the general operating rooms and the Shock Trauma Center. The team approach that characterizes anesthesia care in our department is the result of a collaborative relationship between CRNAs and anesthesiologists.

To advance the field — both within our center and beyond its walls — members of our department are conducting basic and clinical research projects related to brain injury, neuroprotection, acute lung injury, telemedicine, chronic pain management, and patient safety — to name a few.

We feature a highly praised anesthesiology residency that is fully accredited for the training continuum of four years. The diverse curriculum permits candidates to fulfill the educational requirements for entrance to the American Board of Anesthesiology examination system. We offer accredited fellowships in critical-care medicine, pain medicine, and cardiothoracic anesthesia, as well as advanced subspecialty fellowship training in neurosurgical anesthesia, obstetrics, trauma, transplantation, and research.

With nearly a century of care to the people of Baltimore, the University of Maryland Department of Anesthesiology is tightly woven into the fabric of this charming and diverse city. And we are poised for more growth.

We are now seeking to expand our ranks by recruiting motivated resident applicants, fellow candidates, CRNAs, and faculty members with a shared interest in advancing the field of anesthesiology and developing careers in academic anesthesiology, and who are dedicated to the highest quality, compassionate patient care. We pride ourselves on our collegial and collaborative approach and are committed to helping all of our staff achieve their greatest potential so that we can bring the very best care to the patients we serve.

Peter Rock, M.D., M.B.A., F.C.C.M.
Martin Helrich Professor and Chair
Department of Anesthesiology
University of Maryland School of Medicine
Professor of Anesthesiology, Medicine and Surgery
Anesthesiologist in Chief, University of Maryland Medical Center

Living Quality, Safety and Excellence

Creating the Future of Anesthesiology

Education is a critical part of the mission of every academic medical center and every department within it. The University of Maryland Department of Anesthesiology fulfills this mission through the training of residents, fellows, and medical students. Clinicians who come to train with us are exposed to a wide variety of cases — all in a setting where individual attention to education remains paramount.

Residents

Our highly sought-after residency is fully accredited with a review cycle of four years. The curriculum complies with the training requirements of the American Board of Anesthesiology and the Accreditation Council for Graduate Medical Education, and consists of three clinical anesthesia years which include basic, subspecialty, and advanced anesthesia training. All spots in the residency program have consistently been filled each year, demonstrating the popularity of the program. We also offer ten, four-year, integrated positions, which include a medical internship (PGY-1) and CA-1, CA-2, and CA-3 years.

The residency program consists of supervised daily instruction in the care of patients requiring surgery, obstetric care, pain management, critical care services, and preoperative evaluation. This past year, the residency program was restructured to provide a focused board review for third-year residents, distinct from the didactics for first- and second-year residents.

The electronic Blackboard system is used exclusively for distribution of all educational materials to residents. Our residents also participate regularly in the Gulf Atlantic Anesthesiology Residents Conference, the Maryland Society of Anesthesiologists, and as resident delegates in the American Society of Anesthesiologists.

For more details about the residency program, visit us online at http://medschool.umaryland.edu/anesthesiology/residency.asp.

Fellows

Individuals may choose to complete subspecialty fellowship training (12 to 24 months) beyond the three-year residency. Fellowship training is provided in the subspecialties of cardiothoracic, neurosurgical, obstetric, transplant, and trauma anesthesiology, critical care medicine, and pain medicine.

For more details about fellowship training, visit us online at http://medschool.umaryland.edu/anesthesiology/fellowship_training.asp.

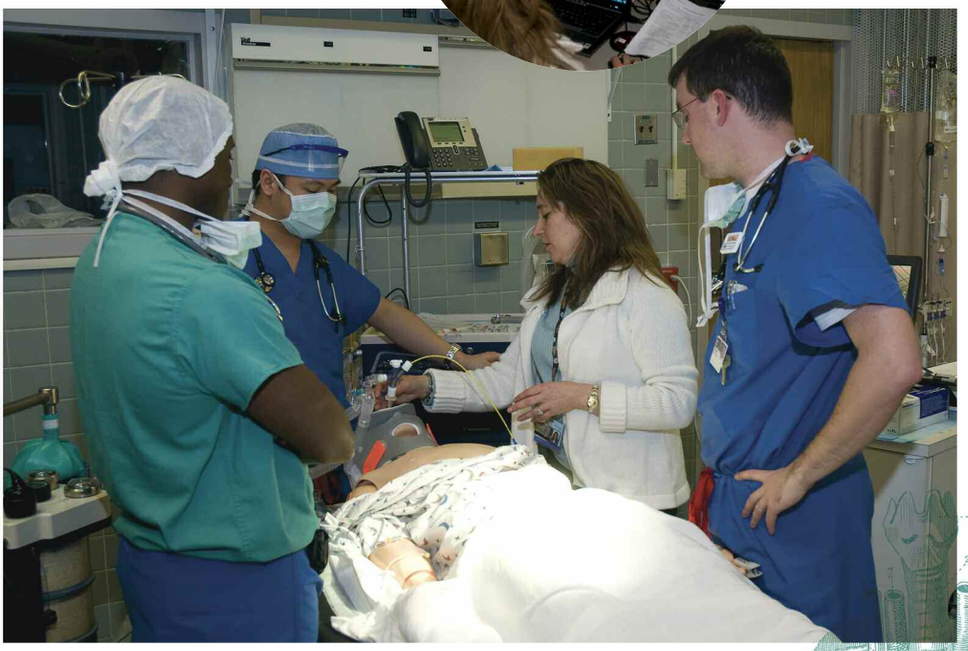
Medical students

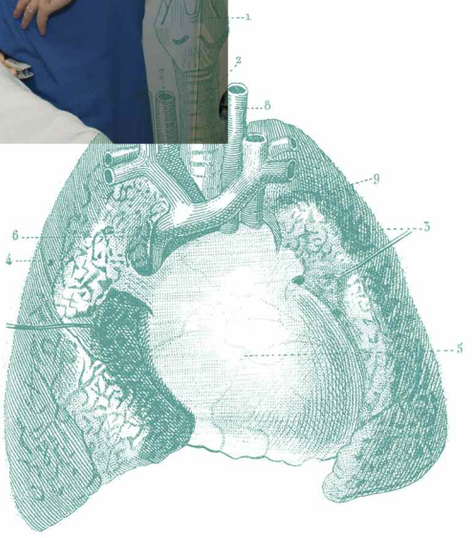
The Department of Anesthesiology takes an active role in training medical students at the University of Maryland School of Medicine through courses and externships in several anesthesia subspecialties. Three medical school courses are sponsored by the Department: the Anesthesiology Elective (#541), the Sub-Internship in Critical Care (#548), and the Elective in Pain Management (#542).

More information is available online at http://medschool.umaryland.edu/anesthesiology/med_students.asp.

▲
Mary Njoku, M.D.
Vice Chair for Education
Residency Program Director

Wendy Bernstein, M.D. leads a simulation of one-lung ventilation for chest surgery after a motor vehicle accident with Anesthesiology residents Drs. Maurice Montgomery, Leo Tsay, and Andy Heath.





Simulation-Based Education

Experience is the best teacher. The greater the variety of clinical cases a trainee encounters, the more experience that trainee will gain as a result. But it is not always possible to learn how to deal with certain difficult clinical challenges if those challenges don't present themselves on a regular basis.

That's where simulation can help. Simulation enables physicians to learn how to manage clinical cases they may not see on a daily basis in the hospital. The University of Maryland Department of Anesthesiology has integrated simulation into the framework of our residency program through the Maryland Advanced Simulation, Training, Research and Innovation (MASTRI) Center.

Located within the University of Maryland Medical Center, this innovative facility provides unique training and research opportunities for the Department of Anesthesiology. The MASTRI Center is one of only 20 simulation programs in the country to achieve Level 1 Certification from the American College of Surgeons.

Our residents at the 2009 Resident Retreat.

The MASTRI Center houses a complete array of human patient simulation systems, including several Medical Education Technologies, Inc. Human Patient Simulators (HPS) and Emergency Care Simulators (ECS) as well as the Laerdal SimMan and SimBaby. A number of partial task trainers are also available for skills training and incorporation into complex exercises. It is possible to learn placement of peripheral nerve blocks and epidural catheters in a simulated environment. A fully functional video recording system provides immediate debriefing and feedback sessions to maximize learning potential.

Configurable space allows for the creation of multiple environments — from an operating room to a trauma resuscitation bay. Programs in difficult airway management, team dynamics, trauma resuscitation, and equipment familiarization allow for training as well as assessment of individual and team performance in the field of anesthesiology and critical care. The Pediatric Anesthesia Division is introducing simulation as an educational tool to train residents in pediatric emergencies they may not encounter regularly, such as airway emergencies and perioperative cardiac arrest.

In 2008, the Department of Anesthesiology initiated its simulation-based educational program requirement for the entire residency. Dr. Wendy Bernstein conducted over a dozen sessions with small groups of anesthesiology residents, using simulation to train them on the placement, management, and use of central venous catheters. The ultimate goal of the simulation program is to provide three courses annually for all residents, incorporating partial task training, team-based exercises, and reflective learning in small groups.

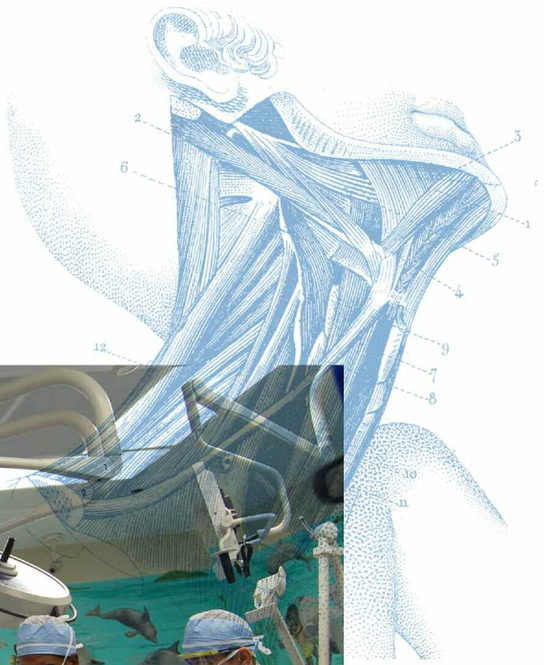
Simulation-based difficult airway management is also an integral part of our education program. Each resident participates in a difficult airway algorithm session, with an emphasis on decision-making based on the ability to ventilate or not to ventilate a patient. In addition, there is an annual difficult airway workshop which allows each resident to practice with difficult airway management devices, including the flexible fiberoptic bronchoscope, video laryngoscope, Laryngeal Mask Airway (LMA) and LMA fasttrach, retrograde intubation kit, combitube, and percutaneous cricothyroidotomy.

Other recent educational initiatives in the department have included:

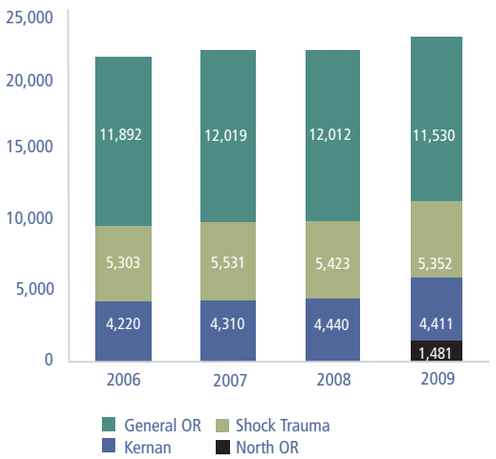
- Lectures, seminars, and journal clubs for residents, fellows, and CRNAs, organized by specialty divisions such as Pain Medicine, Cardiovascular and Thoracic Anesthesiology, Obstetric Anesthesiology, Pediatric Anesthesiology, and the Program for Regional Anesthesiology
- Training of residents in the use of ultrasound-guided regional anesthesia
- Training of every University of Maryland medical student in hands-on airway management
- Teaching and supervision of residents and fellows in the management of critically ill patients
- A “board review” seminar series for CA-3 residents
- A weekly morning conference for residents in the Division of Pediatric Anesthesiology
- At Kernan Hospital, a course on ultrasound-guided regional anesthesia and acute pain management, using plasticized cadaver dissections to teach the pertinent anatomy of various peripheral nerve blocks
- Lectures by our faculty as visiting professors at other institutions and presentations at our institution by visiting faculty
- Presentations by faculty at national and international conferences
- Career Day presentations at local high schools and elementary schools
- Annual resident retreat that focuses on professional life after residency

Putting Patient Comfort First

A vital part of the mission of the Department of Anesthesiology at the University of Maryland Medical Center is the delivery of state-of-the-art anesthesia services in perioperative care, pain management, and critical care medicine. As the field of anesthesiology has advanced, it has become critical to subspecialize in order to meet the goal of providing these services in the safest, most effective and efficient way possible.



Total OR Case Volumes



Subspecialty anesthesiology at the University of Maryland Medical Center is provided through the following divisions:

- *Adult Multispecialty Anesthesia*
- *Cardiovascular and Thoracic Anesthesia*
- *Critical Care*
- *Neurosurgical Anesthesia*
- *Obstetric Anesthesia*
- *Pain Medicine*
- *Pediatric Anesthesia*
- *Regional Anesthesia*
- *Trauma Anesthesia*

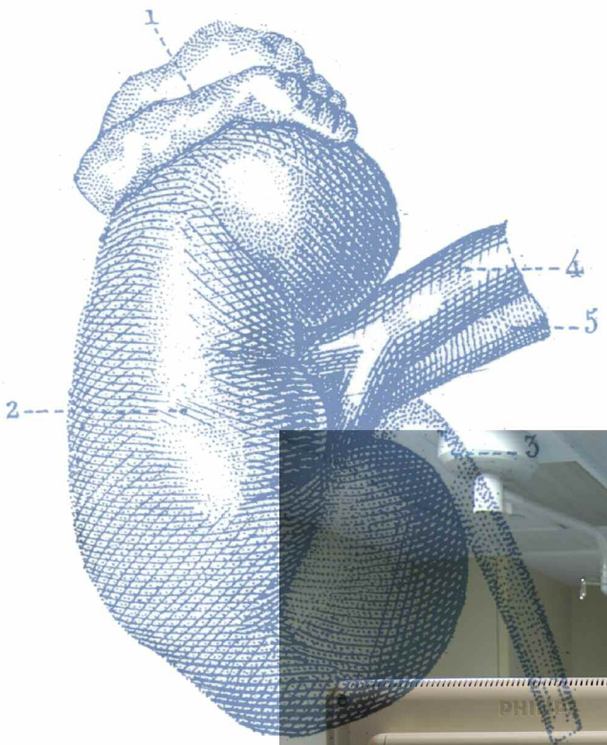
Adult Multispecialty

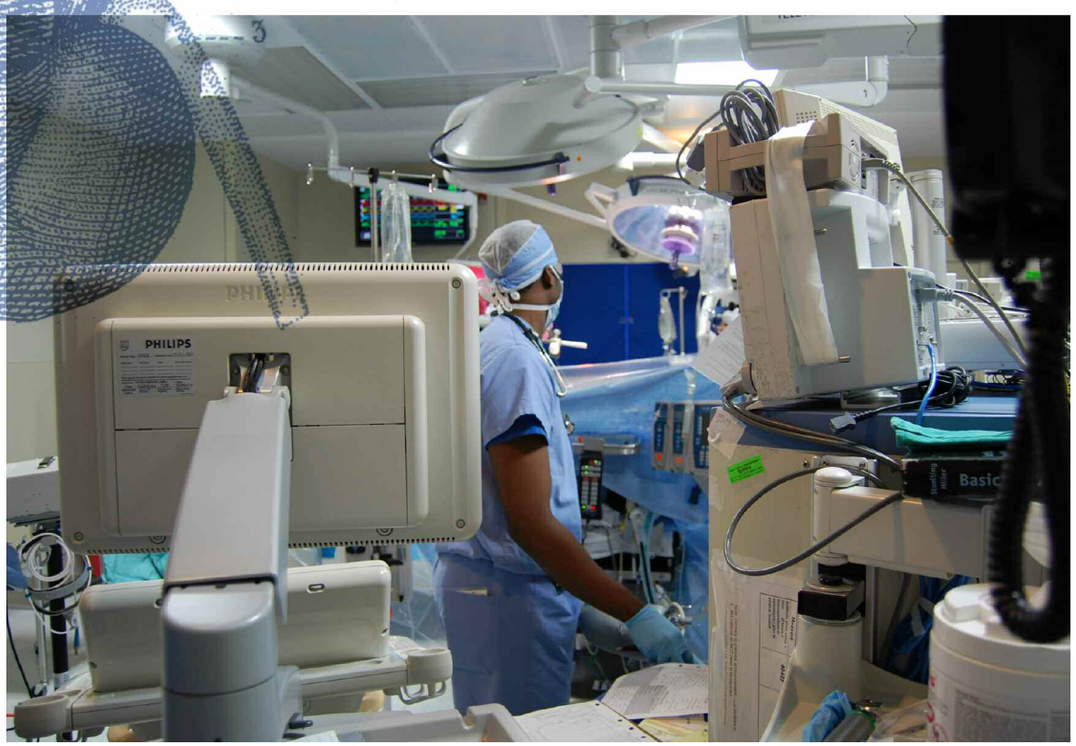
The operating rooms at the University of Maryland Medical Center are located in the Weinberg building, Shock-Trauma Hospital, and the new North Hospital perioperative area. These three state-of-the-art facilities contain 31 surgical and two endoscopy suites, serving all surgical subspecialties with equipment and supplies to support the clinical care of our diverse patient population.

These operating rooms are supported by 51 faculty dedicated to the clinical care of their patients and the education of both residents and medical students. For most clinical cases, we use a model of directed supervision of residents or CRNAs; other cases have anesthesia provided solely by faculty anesthesiologists.

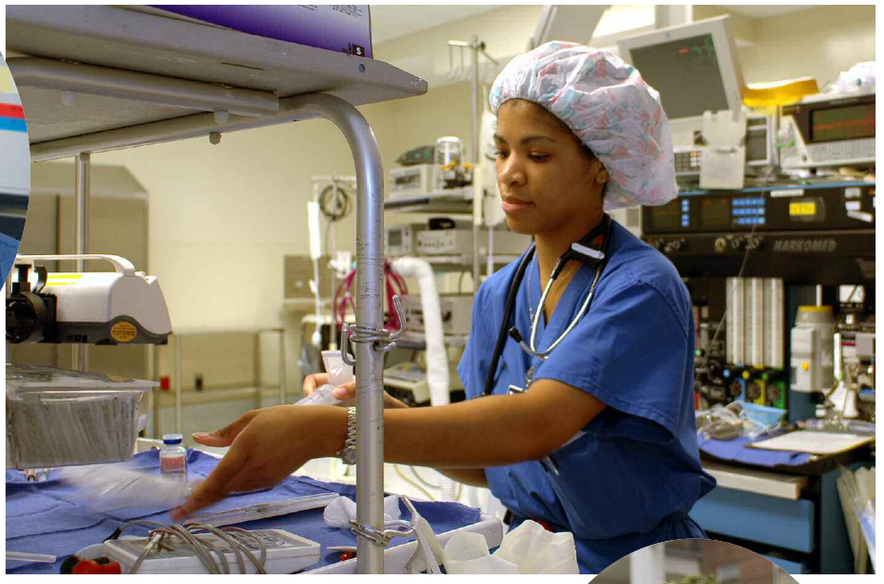
The department witnessed growth in academic year 2009, particularly following the opening of the North Hospital operating rooms. Surgical cases increased by 4 percent, pain visits by 11 percent, and intensive care unit (ICU) patient-days by 3 percent. Increasing growth is expected for the coming year as the capacity created by the new operating rooms is more fully utilized.

Key to handling this projected volume increase is a new Anesthesia Information Management System (AIMS), an electronic medical record system for all University of Maryland Medical Center operating rooms, the Preoperative Testing Center, and the Labor and Delivery Suite. Scheduled to go live in June 2010, AIMS will provide paperless documentation and serve as a powerful tool to collect and analyze patient data, leading to even higher quality care for our patients and support for our clinical research. We have chosen to partner with iMDSoft and use their Metavision OR product for our state-of-the-art system.





▲
Douglas Martz, M.D.
Vice Chair for Clinical Affairs
Clinical Director
Director, Adult Multispecialty
Anesthesia Division



▲ *Anesthesiology resident, Chanda Bell-Lamarque, M.D.*

▲
Victoria Smoot, M.D.
Medical Director
North Hospital Ambulatory Surgery Center

Faculty

Doug Martz, M.D.
Director, Adult Multispecialty
Anesthesia Division
Associate Professor

Beatrice Afrangui, M.D.
Clinical Assistant Professor

Jasjit Atwal, M.B.B.S
Clinical Assistant Professor

Malinda Boyd, M.D.
Clinical Assistant Professor

Shobana Bharadwaj, M.B.B.S.
Assistant Professor

Ribal Darwish, M.D.
Assistant Professor

Kathleen Davis, M.D.
Assistant Director, Residency Program
Assistant Professor

John Drago, D.O., J.D.
Clinical Assistant Professor

Molly Fitzpatrick, M.D.
Assistant Professor

Annette Folgueras, M.D., J.D.
Clinical Assistant Professor

Ileana Gheorghiu, M.D.
Assistant Professor

Jawad Hasnain, M.B.B.S.
Assistant Professor

Alisa Horsford, M.D.
Visiting Instructor

Robyn Iglehart, M.D.
Instructor

Chinwe Ihenatu, M.B.,Ch.B.
Clinical Assistant Professor

Arthur Milholland, M.D., Ph.D.
Clinical Assistant Professor

Sheryl Nagle, M.D.
Clinical Assistant Professor

Mary Njoku, M.D.
Vice Chair for Education
Associate Professor

Robert Noorani, M.D.
Assistant Professor

Peter Rock, M.D., M.B.A., F.C.C.M.
Department Chair
Professor

Ron Samet, M.D.
Director, Program in Regional Anesthesia
Assistant Professor

Sanyogeeta Sawant, M.B.B.S.
Clinical Assistant Professor

David Schreibman, M.D.
Assistant Professor

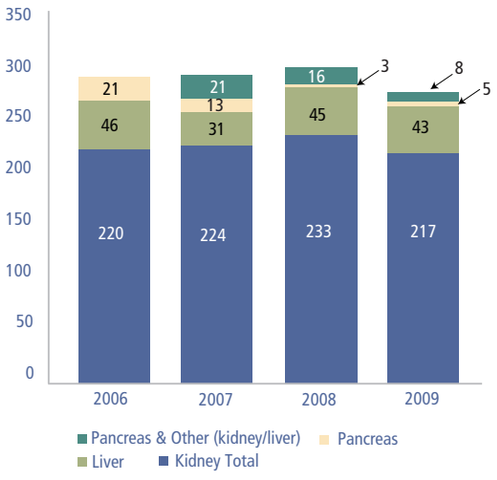
Baekhyo Shin, M.D.
Clinical Professor

Victoria Smoot, M.D.
Assistant Professor

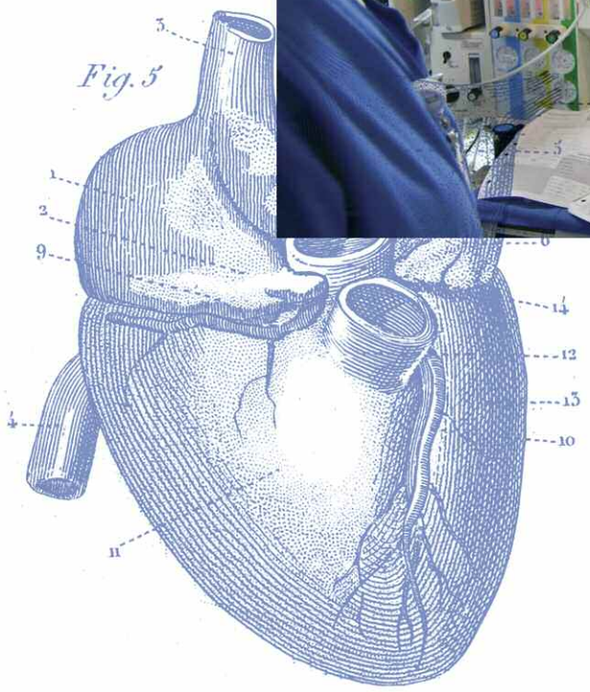
Shafonya Turner, M.D.
Instructor

Obi Udekwu, M.B.B.S.
Director, Transplant Anesthesiology
Assistant Professor

Solid Organ Transplants



Cardiovascular and Thoracic Anesthesiology

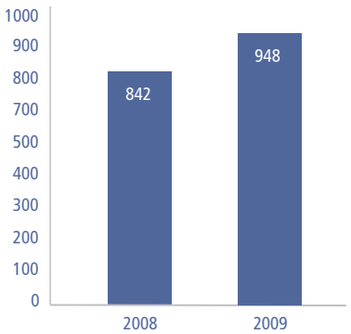


The Division of Cardiovascular and Thoracic (CT) Anesthesiology provides perioperative anesthetic and critical care services to a diverse and complex population of patients with significant cardiac, pulmonary, and vascular diseases. The CT team consists of seven board-certified, fellowship-trained anesthesiologists, and three registered diagnostic cardiac sonographers.

Services are provided in the CT/transplantation operating room pod, the cardiosurgical intensive care unit, cardiac catheterization and electrophysiology laboratories, coronary care unit, Shock Trauma Center, and anywhere else patient management necessitates care by a CT attending physician. Common procedures in which CT anesthesiologists participate include:

♥ **Cardiac care:** coronary artery bypass grafting, valve repair/replacement, implantation of ventricular assist devices, heart and heart-lung transplantation, extracorporeal membrane oxygenation, and implantation of pacemakers and defibrillators. The University Maryland Medical Center is one of the busiest institutes on the east coast for the management of heart failure. Our CT anesthesiologists are world experts in the unique anesthesia requirements of closed chest coronary artery bypass grafting performed using the daVinci robot with cardiopulmonary bypass.

Trans-esophageal Echos



♥ **Thoracic procedures:** lung biopsy, lobectomy or pneumonectomy, bronchoscopy/endoscopy, mediastinoscopy, pleurodesis/pleural drainage, thoracic sympathectomies, esophagectomy (all approaches), thymectomy, substernal tumor removal, and chest tube placement — performed through either thoracotomy or thoracoscopy, utilizing one-lung ventilation techniques with either double-lumen endobronchial tubes or bronchial blockers.

♥ **Vascular procedures:** repair or replacement of the aorta (thoracic and/or abdominal, including trauma), major peripheral bypasses, vessel thrombectomy, and carotid endarterectomy, many of which are performed using regional anesthesia. In major aortic procedures, emphasis is placed on spinal cord protection, using novel neuroprotectant agents and lumbar spinal drainage and/or cooling.

♥ **Echocardiography services** are provided by CT faculty and dedicated sonographers for cardiac, thoracic, vascular, and other procedures, as needed.

Recognizing the importance of team interactions throughout the perioperative period, the division is enhancing the effectiveness and efficiency of communications among team members, OR-to-ICU hand-off tools, and intra-department case review and debriefing.

Faculty

Patrick Odonkor, M.B., Ch.B.
Acting Director, Cardiothoracic Anesthesia Division
Assistant Professor

Wendy Bernstein, M.D.
Assistant Professor
Fellowship Director

Bianca Conti, M.D.
Assistant Professor

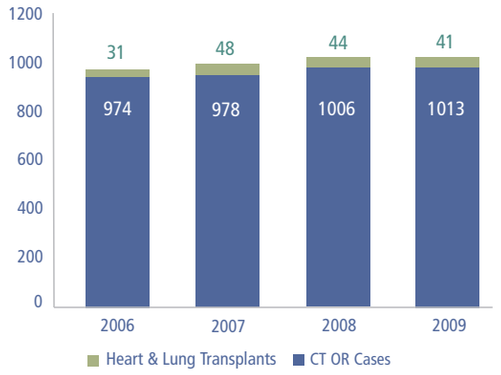
Seema Deshpande, M.B.B.S.
Assistant Professor

John P. Drago, D.O., J.D.
Clinical Assistant Professor

Molly Fitzpatrick, M.D.
Assistant Professor

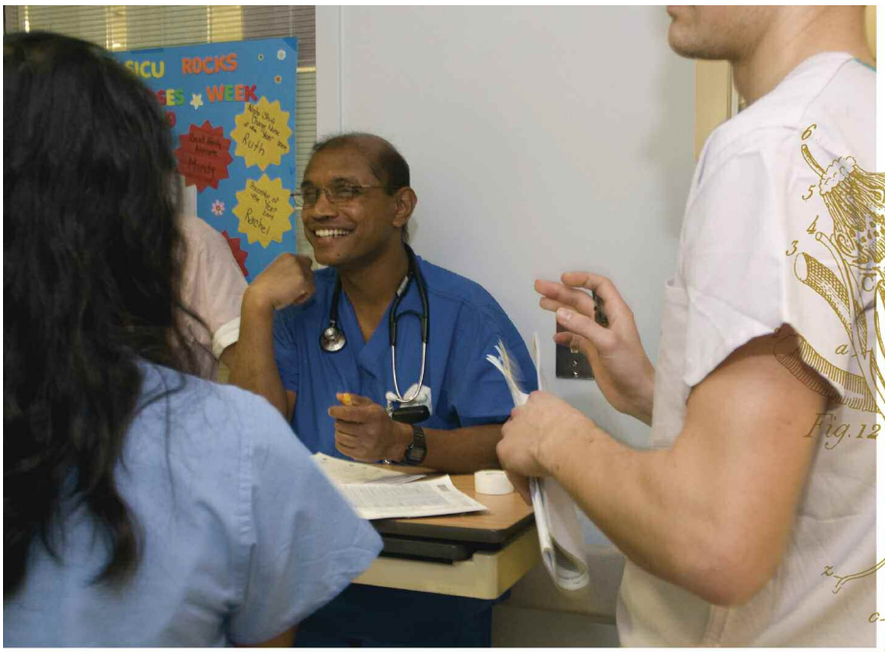
Ileana Gheorghiu, M.D.
Assistant Professor

Cardio-Thoracic Surgical Cases



▲ Patrick Odonkor, M.B.,Ch.B.
Acting Director, Cardiothoracic Anesthesia Division

Critical Care Anesthesiology



Vadivelu Sivaraman, M.B.B.S.
Director, Critical Care Division

The Division of Critical Care Anesthesiology plays a vital role in providing care for patients in the Surgical ICU, NeuroCare unit, Trauma ICUs, and the post-anesthesia care unit. The demand for critical care services was very robust during the last academic year.

The University of Maryland Medical Center is a designated center to receive patients with acute strokes receiving thrombolytic therapy and intra-arterial clot retrieval. The hospital has an excellent reputation for its expertise in caring for patients suffering from acute severe pancreatitis; 5 to 10 percent of Surgical ICU beds are occupied by patients suffering from this disorder. The division also provides direction and care in the management of patients undergoing liver, kidney, and pancreas transplants, as well as major vascular surgical procedures and chest surgery.

The growing number of aging Americans as well the development of novel therapies is expected to increase the demand for ICU beds by 80 to 90 percent over the next five years. The division is poised to meet this challenge. The Department has eight board-certified intensivists who help provide 24/7 coverage in the Surgical ICU, NeuroCare ICU, Veterans Administration ICU, and Trauma ICUs.

Faculty

Vadivelu Sivaraman, M.B.B.S.
Director, Critical Care Division
Assistant Professor

Anila Bhatti, M.B.B.S.
Clinical Assistant Professor

Ribal Darwish, M.D.
Assistant Professor

Thomas E. Grissom, M.D.
Associate Professor

Mary Njoku, M.D.
Vice Chair for Education
Associate Professor

Peter Rock, M.D., M.B.A.. F.C.C.M.
Department Chair
Professor

David Schreibman, M.D.
Assistant Professor

Eric Shepard, M.D.
Assistant Professor

Certified Registered Nurse Anesthetists (CRNAs)

Certified Registered Nurse Anesthetists (CRNAs) are advanced practice nurses who deliver safe and compassionate anesthesia care throughout the University of Maryland Medical Center, in collaboration with attending anesthesiologists who provide medical direction. The Medical Center offers a dynamic, diverse, and challenging environment where CRNAs can grow, learn, and become experts within the field.

CRNAs participate in the preoperative evaluation of patients, order diagnostic tests, and care for patients during induction, maintenance, and emergence from anesthesia. They perform common anesthesia-related procedures, including airway management, placement of invasive catheters, and the delivery of general, regional, and monitored anesthesia care. Our CRNAs are experts in their field, and have lectured both locally and nationally. In addition, they serve as board members and committee members in the Maryland Association of Nurse Anesthetists.

Our CRNAs take great pride in the training of future nurse anesthetists from around the country. The Medical Center serves as a clinical site for six programs in nurse anesthesia: University of Maryland, University of Pennsylvania, Columbia University, Georgetown University, Old Dominion University, and Walter Reed Army Medical Center. CRNAs are an integral part of the didactic and clinical training of students from these programs, training 58 students during the 2009 academic year.

Some of our CRNAs hold faculty positions at the University of Maryland School of Nursing, and many are guest lecturers at the school. To further educate CRNAs from within and beyond our institution, the University of Maryland Medical Center hosts a quarterly lecture series called ***Trends in Nurse Anesthesia***. This series is free and open to all CRNAs in the community. Visit our website at http://medschool.umaryland.edu/anesthesiology.

▲ *Russell Baker, CRNA*

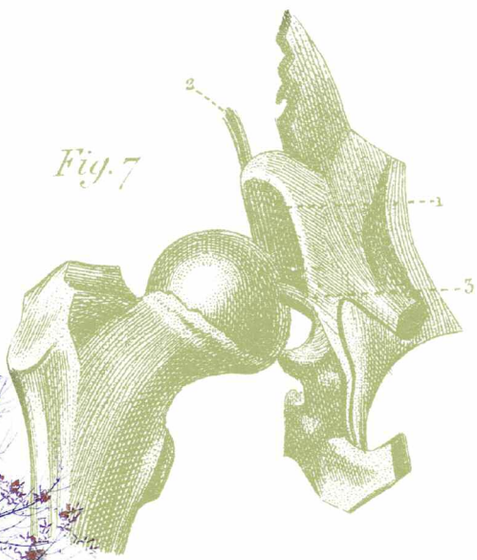
◀ Linda Goetz, CRNA
Chief Nurse Anesthetist

Kernan Hospital

Kernan Hospital is located in Woodlawn, Maryland, seven miles from the University of Maryland Medical Center campus. The Kernan Hospital Anesthesiology Division is responsible for staffing the preoperative testing center, six operating rooms, a dedicated preoperative block area, and the post-anesthesia care unit. Eight faculty anesthesiologists offer nerve blocks for total shoulder replacement, total elbow replacement, hand surgery, total hip replacement, total knee replacement, and anterior cruciate ligament reconstruction. Faculty provide 24-hour acute pain services for inpatients to ensure continuity of care throughout the hospital stay.

The high volume and high quality of regional anesthetics performed by the anesthesiology division at Kernan Hospital has led to our reputation as experts in the field of regional anesthesia. We have been employing state-of-the-art techniques such as ultrasound-guided peripheral nerve blockade for more than six years, and offer "hands-on" guidance with ultrasound-guided pain procedures on a daily basis.

Kernan OR Cases



Edwin Villamater, M.D.
Director, Kernan
Anesthesia Division

Faculty

Edwin Villamater, M.D.
Director, Kernan Anesthesia Division
Assistant Professor

Lise Asaro, M.D.
Instructor

Mark Dimino, M.D.
Assistant Professor

Jeff Haugh,M.D.
Assistant Professor

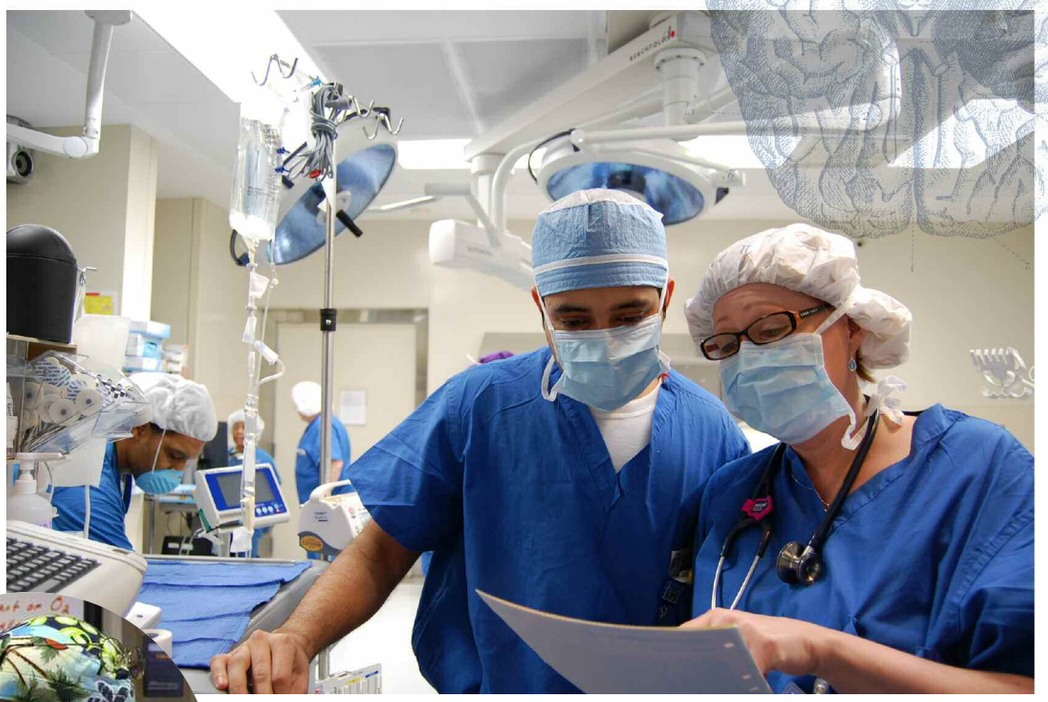
Emily Joe, M.D.
Assistant Professor

Patrick Lee, M.D.
Instructor

Amy Marks, M.D.
Assistant Professor

Eric Shepard, M.D.
Assistant Professor

Neurosurgical Anesthesiology



David Schreibman, M.D.
Director, Neurosurgical Anesthesia

The Division of Neurosurgical Anesthesiology provides innovative care to our patients with neurologic disease, including neurological monitoring and the management of intracranial hypertension and cerebral edema.

The division medically directs a Neurophysiology Evoked Potential service for intraoperative monitoring in all of the Medical Center's operating rooms. Monitoring modalities include: somatosensory evoked potentials, brainstem auditory evoked potentials, visual evoked potentials, motor evoked potentials, cranial nerve monitoring, electromyography, and intra-operative brain mapping.

Faculty

David Schreibman, M.D.
Director, Neurosurgical Anesthesia
Assistant Professor

Beatrice Afrangui, M.D.
Director, PREP Center
Clinical Assistant Professor

Ribal Darwish, M.D.
Assistant Professor

Chinwe Ihenatu, M.B., Ch.B.
Clinical Assistant Professor

Douglas Martz, M.D.
Director, Adult Mulitspecialty Anesthesia Division
Associate Professor

Mary Njoku, M.D.
Vice Chair for Education
Associate Professor

Baekhyo Shin, M.D.
Clinical Professor

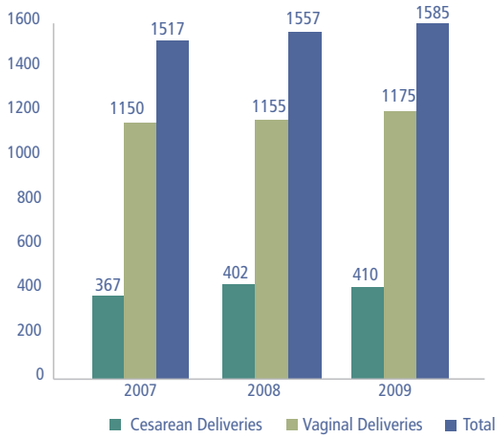
Vadivelu Sivaraman, M.B.B.S.
Director, Critical Care Division
Assistant Professor

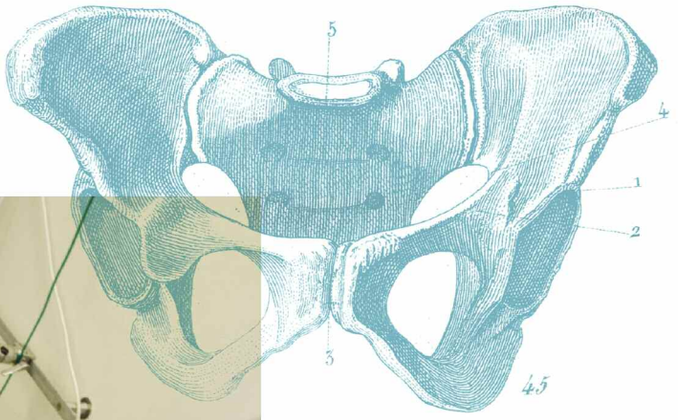
Obstetric Anesthesiology

The Division of Obstetric Anesthesiology provides round-the-clock attending specialty care in the Labor and Delivery Suite. Fellowship-trained individuals provide the majority of obstetric anesthesia services. Over the past year, 27 percent of deliveries were performed through C-section and 68 percent of vaginal deliveries required an epidural.

Since the University of Maryland Medical Center is a referral hospital for the rest of the state, some 90 percent of the obstetric patient population is considered to be high-risk. Besides patients with complex fetal problems (often necessitating fetal surgery or preterm delivery), the maternal population includes many patients with co-existing cardiac, neurosurgical, and respiratory conditions, as well as morbid obesity or other issues.

Vaginal and Cesarean Deliveries





Andrew Malinow, M.D.
Vice Chair for Faculty Affairs
Director, Obstetric Anesthesia Division

Faculty

Andrew Malinow, M.D.
Director, Obstetric Anesthesia Division
Professor

Beatrice Afrangui, M.D.
Medical Director, PREP Center
Clinical Assistant Professor

Shobana Bharadwaj, M.B.B.S.
Assistant Professor

Annette Folgueras, M.D., J.D.
Clinical Assistant Professor

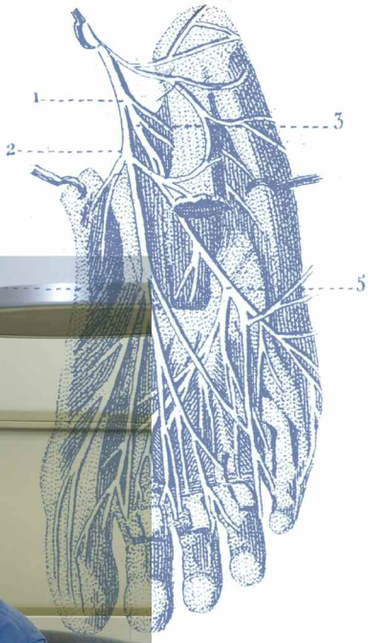
Chinwe Ihenatu, M.B., Ch.B.
Clinical Assistant Professor

Douglas Martz, M.D.
Director, Adult Multispecialty Anesthesia Division
Associate Professor

Sheryl Nagle, M.D.
Clinical Assistant Professor

Shafonya Turner, M.D.
Instructor

Pain Medicine



Thelma Wright, M.D.
Director, Pain Medicine Division

Faculty

Thelma Wright, M.D.
Director, Pain Medicine Division
Assistant Professor

Natasha Durant, Ph.D.
Licensed Clinical Psycologist

Kanchana Gattu, M.B.B.S.
Assistant Professor

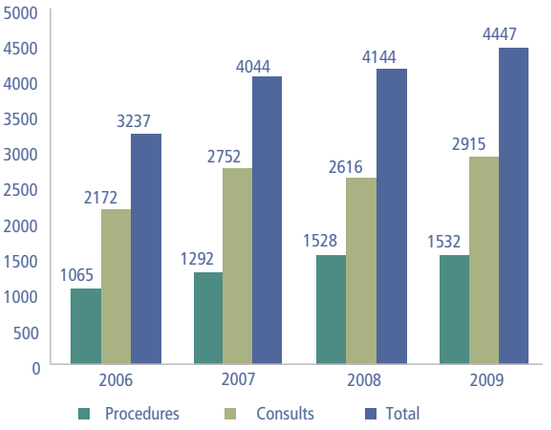
Emily Joe, M.D.
Assistant Professor

Seung Lee, M.D.
Assistant Professor

The Division of Pain Medicine uses a multidisciplinary team approach to evaluate factors contributing to pain. This information is used to tailor individualized treatment plans to maximize patient outcomes, using interventional procedures, medication, physical therapy, and psychological support. Patients with chronic pain receive personalized education and treatment to manage their discomfort.

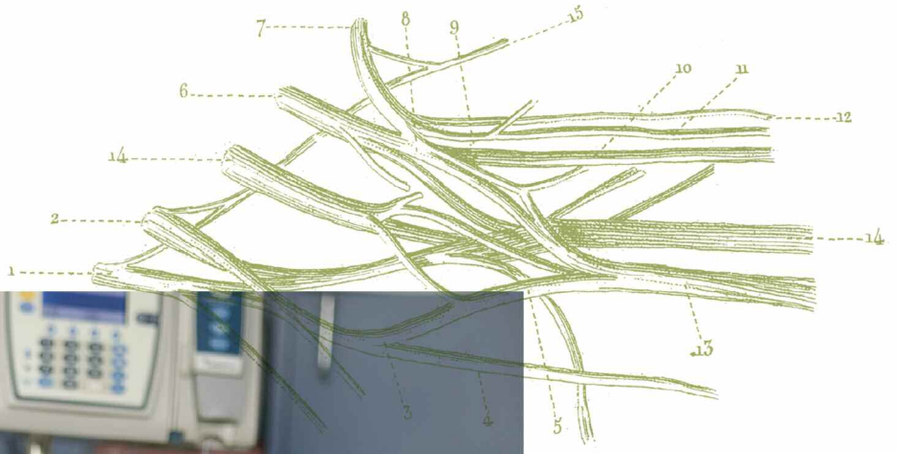
A wide range of analgesic approaches is available, ranging from biofeedback and relaxation training to joint and nerve injections and intradiscal electrodermal therapy. New technologies include functional anatomic discography and radiofrequency lesioning. We are also examining the use of acupuncture. Five faculty members are acupuncture-certified. The Division of Pain Medicine aims to diagnose and reduce pain and discomfort and increase patients' physical capabilities so they may return to a productive lifestyle.

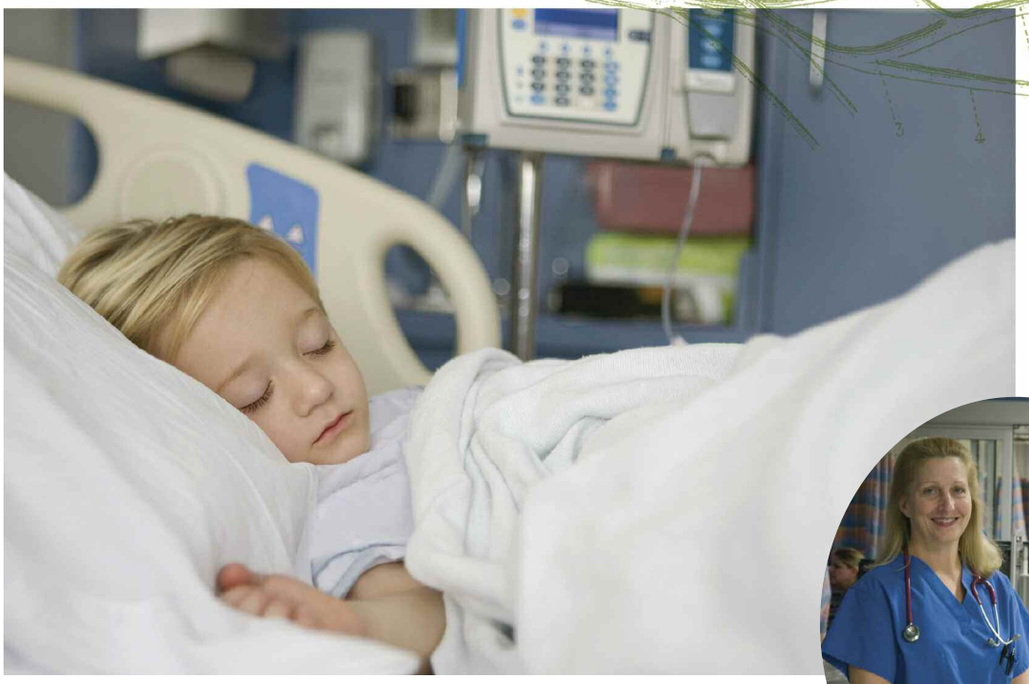
Pain Procedures and Consults



The Division of Pain Medicine is performing several clinical trials evaluating spinal cord stimulation for refractory diabetic neuropathy and refractory visceral pain; assessing the antiemetic efficacy of transcutaneous electrical nerve stimulation for chemotherapy-related nausea and vomiting in women with breast cancer; and investigating gabapentin in trauma pain. The acute pain medicine service is using complementary medicine techniques for the care of trauma patients.

Pediatric Anesthesiology





Anne Savarese, M.D.
Director, Pediatric
Anesthesia Division

The Division of Pediatric Anesthesiology provides sophisticated and comprehensive perioperative care to premature and term newborns, infants, children, and adolescents from across the state in the medical center's operating rooms, imaging suites, and procedure rooms. Staff engage actively in all aspects of the patient and family experience — from preoperative evaluation, intra-operative care and monitoring, to post-operative pain and symptom management.

The division excels in efficiency and clinical effectiveness while emphasizing compassion and dignity for young patients and their families. We care for our pediatric patients in a separate child and family-centered area — the Pediatric Surgery Center. In 2009, we implemented a new preoperative evaluation process for children in order to decrease day-of-surgery cancellations. In this successful program pediatric nurses conduct interviews and provide preoperative teaching and instruction.

In the past year, the division expanded its clinical service volume by 7 percent. Staff continue to enrich their practice with evidence-based and state-of-the-art anesthetic techniques, including intravenous anesthesia and regional anesthesia in even the smallest patients. The division cares for an average of 59 pediatric cardiac cases each year.

Faculty

Anne Savarese, M.D.
Director, Pediatric Anesthesia Division
Assistant Professor

Monique Bellefleur, M.D.
Clinical Assistant Professor

Isis Del Rio, M.D.
Assistant Professor

Robyn Iglehart, M.D.
Instructor

Madhavi Naik, M.B.B.S.
Clinical Assistant Professor

Preoperative Evaluation and Preparation (PREP) Center

The PREP Center provides preoperative history and physical documentation and performs preanesthesia evaluations for nearly every patient undergoing outpatient surgery. About 40 to 50 percent of all surgical patients have appointments in the PREP Center similar to a clinic appointment. These patients undergo a history and physical exam (H&P) as well as lab testing and EKG, if indicated, within 30 days of the scheduled procedure, which is updated on the day of surgery — a Joint Commission requirement.

During the preanesthesia evaluation, an attending anesthesiologist reviews and discusses all cases with an anesthesiology resident or a nurse practitioner, and facilitates appropriate referrals to other services as necessary (for example, cardiac evaluations or stress testing).

The remaining 50 to 60 percent of patients undergo a combination of a chart review and a telephone interview. PREP Coordinators receive information from surgical services and preoperative H&Ps and other test results from surgical offices. An attending anesthesiologist contacts the patient by telephone before surgery, reviews all data, and ensures that the anesthesia recommended for the procedure is safe for the patient.

The PREP Center relies on these useful tools to facilitate preanesthesia patient evaluation:

- A four-page Preoperative and Preanesthetic Patient Questionnaire is used to determine if a patient is an appropriate candidate for a telephone evaluation or should be scheduled for an on-site appointment. This information also helps identify patients with complex histories who need to have medical records requested for review prior to the preoperative evaluation. PREP Center nurse practitioners have been trained to perform the Preanesthetic Evaluation to accommodate increasing patient volumes.
- The "PREP manual" is a compilation of guidelines and educational material geared toward perioperative medicine and preoperative preparation and evaluation of surgical patients. The "PREP manual" is now available online to all members of the department.

Nancy Lee McBride, CRNP, examines a patient prior to surgery in the PREP Center. ▼

◀ Beatrice Afrangui, M.D.
Medical Director, PREP Center

Faculty

Beatrice Afrangui, M.D.
Medical Director, PREP Center
Clinical Assistant Professor

Kathleen Davis, M.D.
Assistant Director, Residency Program
Assistant Professor

Virginia Murphy, MB.BCh.BAO
Clinical Assistant Professor

Robert Noorani, M.D.
Assistant Professor

Victoria Smoot, M.D.
Assistant Professor

Program in Regional Anesthesia

Regional anesthesia services are provided to pediatric and adults patients undergoing surgery at the University of Maryland Medical Center, Shock Trauma Center, and Kernan hospital. Staff provide protocol-driven pain management using advanced regional anesthetic techniques.

Between July 2008 and June 2009, the program excelled in the provision of single-injection peripheral nerve blocks and the placement of peripheral nerve block catheters. Standard techniques included interscalene, supraclavicular, infraclavicular, and axillary brachial plexus blocks, as well as femoral and sciatic nerve blocks—more than 90 percent of which were performed using ultrasound guidance. Newer advanced regional anesthesia techniques include ultrasound-guided deep cervical plexus, transverse abdominis plane, ilioinguinal/iliohypogastric, and isolated radial, median, ulnar, saphenous, and lateral femoral cutaneous nerve blocks.

The Program in Regional Anesthesia continues to advance its outpatient peripheral nerve block catheter program which offers patients a decreased length of stay in the hospital and state-of-the-art pain relief at home following total joint replacements and joint capsulectomies.

▲
Ron Samet, M.D.
Director, Program in Regional Anesthesia

Faculty

Ron Samet, M.D.
Director, Program in Regional Anesthesia
Assistant Professor

Lise Asaro, M.D.
Instructor

Cynthia Bucci, M.D.
Assistant Professor

Kathleen Davis, M.D.
Assistant Professor

Mark Dimino, M.D.
Assistant Professor

Jeffery Haugh, M.D.
Assistant Professor

Emily Joe, M.D.
Assistant Professor

Patrick Lee, M.D.
Instructor

Amy Marks, M.D.
Assistant Professor

Arthur Milholland, M.D., Ph.D.
Clinical Assistant Professor

Eric Shepard, M.D.
Assistant Professor

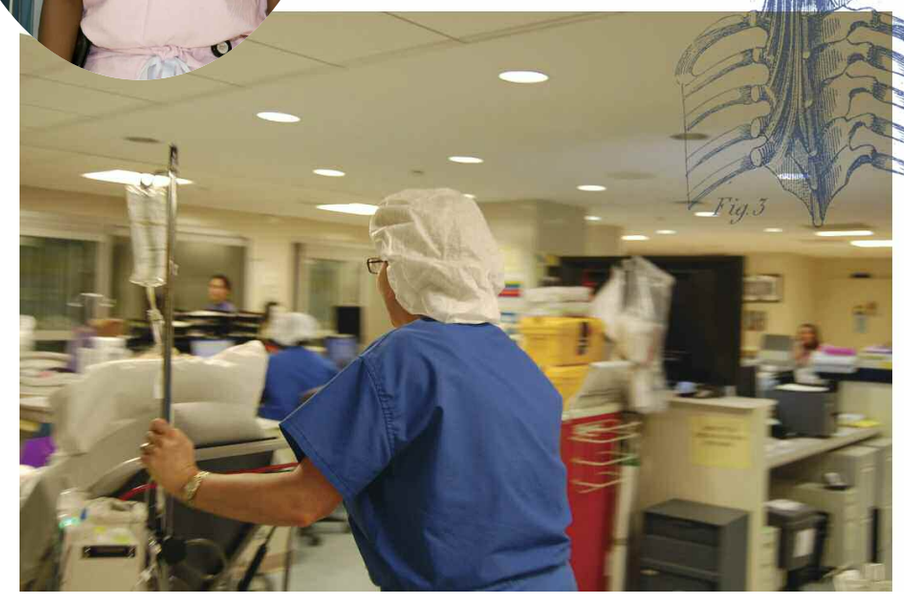
Roger Shere-Wolfe, M.D., J.D.
Assistant Professor

Shafonya Turner, M.D.
Instructor

Edwin Villamater, M.D.
Director, Kernan Anesthesiology
Assistant Professor

Trauma Anesthesiology

Yvette Fouché-Weber, M.D.
Director, Trauma
Anesthesia Division



Faculty

Yvette Fouché-Weber, M.D.
Director, Trauma Anesthesia Division
Assistant Professor

John Blenko, M.D.
Assistant Professor

Cynthia Bucci, M.D.
Assistant Professor

Bianca Conti, M.D.
Assistant Professor

Richard Dutton, M.D., M.B.A
Professor

Thomas Grissom, M.D., F.C.C.M.
Associate Professor

Mary Hyder, M.D.
Assistant Professor

Omid Moayed, M.D.
Clinical Assistant Professor

Ron Samet, M.D.
Director, Program in Regional Anesthesia
Assistant Professor

Roger Shere-Wolfe, M.D., J.D.
Assistant Professor

Sukhwant Sidhu, M.B.B.S.
Instructor

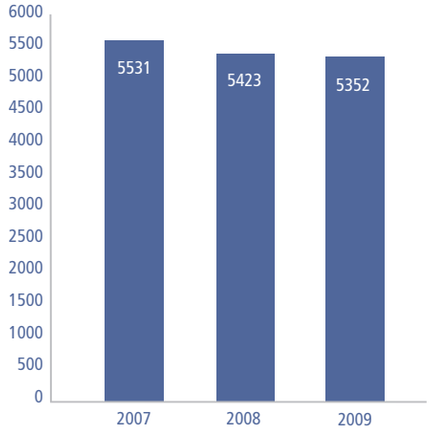
Robert Sikorski, M.D.
Assistant Professor

Christopher Stephens, M.D.
Assistant Professor

The Division of Trauma Anesthesiology provides resuscitation and perioperative care, including the management of pain in patients at the Shock Trauma Center. The division is one of few groups in the country specializing in trauma anesthesia.

The division supports six operating rooms every weekday and four on weekends. In the past year, the division benefited from new technology which includes an echocardiography machine, continuous cardiac output and stroke volume variation monitors, tissue oxygenation monitors, and videoscopic intubation tools. The renovation of trauma operating rooms and installation of new patient monitors is scheduled for completion in 2014.

Shock Trauma OR Cases



Veterans Affairs Medical Center

Padmini Thomas
Acting Director
VA Anesthesia Division

The Veterans Affairs Medical Center (VAMC) is located on the University of Maryland, Baltimore Campus and is connected to the UMMC via a sky bridge. The Anesthesiology Section at the VAMC is currently undergoing a significant change to become its own Department within the VAMC with its own Chief of Service.

A wide variety of surgery is performed at the VAMC and anesthesiology residents rotate there. Currently three full-time faculty provide perioperative care including pain management and critical-care. The faculty take an active role in educating anesthesiology residents.

Faculty

Padmini Thomas, M.B.B.S.
Acting Director, VA Anesthesia Division
Assistant Professor

Anila Bhatti, M.B.B.S.
Clinical Assistant Professor

Henry Wilson, M.D.
Assistant Professor

The Future

The Department projects a 4 percent increase in the number of cases at the University of Maryland Medical Center and Kernan Hospital operating rooms and in pain management procedures through 2010. Our recently opened new operating rooms, new patient data management technology, and increased recruitment of faculty will support our ability to meet this increased demand for our services.

Advancing the Exchange of Information

In addition to the new Anesthesia Information Management System (AIMS), the Department of Anesthesiology is making significant enhancements to its information technology platform, improving the exchange of patient information and facilitating teaching and research efforts. Examples include:

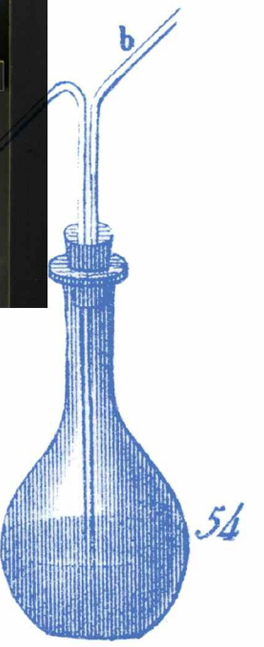
- Web-based call and clinical assignment scheduling software
- Web-based software for resident and faculty evaluations
- Web conferencing and Webcasting, allowing for online viewing of lectures as well as downloads and podcasts
- The electronic Blackboard program for online testing and literature dissemination to residents
- Installation of the Anesthesia Module for the GE/IDX professional billing system
- Utilization of the Maryland Advanced Simulation, Training, Research and Innovation (MASTRI) Center for simulation-based training (see the Education section on page 3 for more information)

RESEARCH:

Advancing the Field

▼ *Tibor Kristian, Ph.D.*

◀ Gary Fiskum, Ph.D.
Vice Chair for Research



Basic science and clinical investigation form the bedrock of medicine. Without such research, advances in patient care would not be possible. Toward that goal, the University of Maryland Department of Anesthesiology supports a vigorous research program. These activities are conducted primarily under the umbrella of the Shock, Trauma and Anesthesiology Research (STAR) Center, an organized research center (ORC) created in early 2008 which builds upon the congressionally mandated Charles McC.Mathias National Study Center for Trauma and Emergency Medical Systems.

The mission of the STAR ORC is to facilitate translational research in areas related to trauma, tissue injury, critical care, and perioperative outcomes. When fully developed, the STAR ORC will include more than 25 investigators from multiple clinical and basic science departments. A goal will be to co-recruit faculty with other ORCs and Institutes and to reach out to investigators from other schools and campuses within the University of Maryland system.

The STAR Center is building multiple basic, translational, and clinical research initiatives, with the goal of creating nationally recognized centers of excellence focusing on brain injury; epidemiology, pathogenesis, and prevention of injury; critical care and organ support; perioperative clinical outcomes and patient safety; and resuscitation. Extramural research support in the STAR Center is growing rapidly, with this year's funding exceeding $8.5 million.

Alan Faden, M.D. was recruited as Director of the STAR Center, assuming the helm in October 2009. He comes to the University of Maryland from Georgetown University, where he developed a nationally renowned research program in brain injury and served in a variety of roles, including Dean of Research.

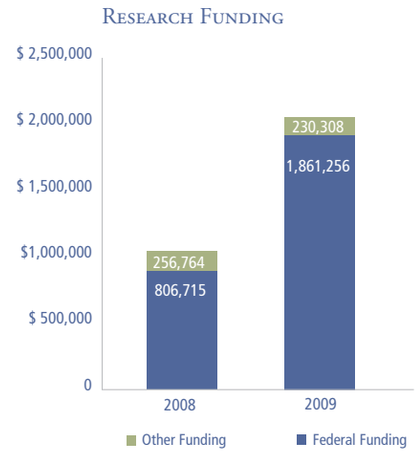
Dr. Faden's research focuses on delayed or secondary injury after brain or spinal cord trauma. His co-investigators will complement the existing research strengths in the Department of Anesthesiology in brain and spinal cord injury, particularly the well-recognized research program of Gary Fiskum, Ph.D. We welcome Dr. Faden, whose leadership and expertise will propel the STAR Center forward.

STAR Research Programs

★ Dr. Alan Faden's laboratory uses multidisciplinary approaches to examine the pathobiology of experimental brain and spinal cord injury and their treatment, focusing on cell cycle pathways, microglial activation, cell death pathways, metabotropic glutamate receptors, and use of combination and multifunctional drug treatment strategies for neurotrauma.

★ The Program in Patient Safety and Clinical Outcomes, led by Dr. Peter Rock, is involved in several large multicenter investigator-initiated clinical trials. These include reducing the incidence of ICU delirium, improving post-operative cognitive function in the elderly, evaluating genetic factors that impact post-operative deep venous thrombosis and infections, and improving outcomes in patients with Acute Respiratory Distress Syndrome.

▲ *Post-doctoral fellow, Pascaline Clerc, Ph.D.*



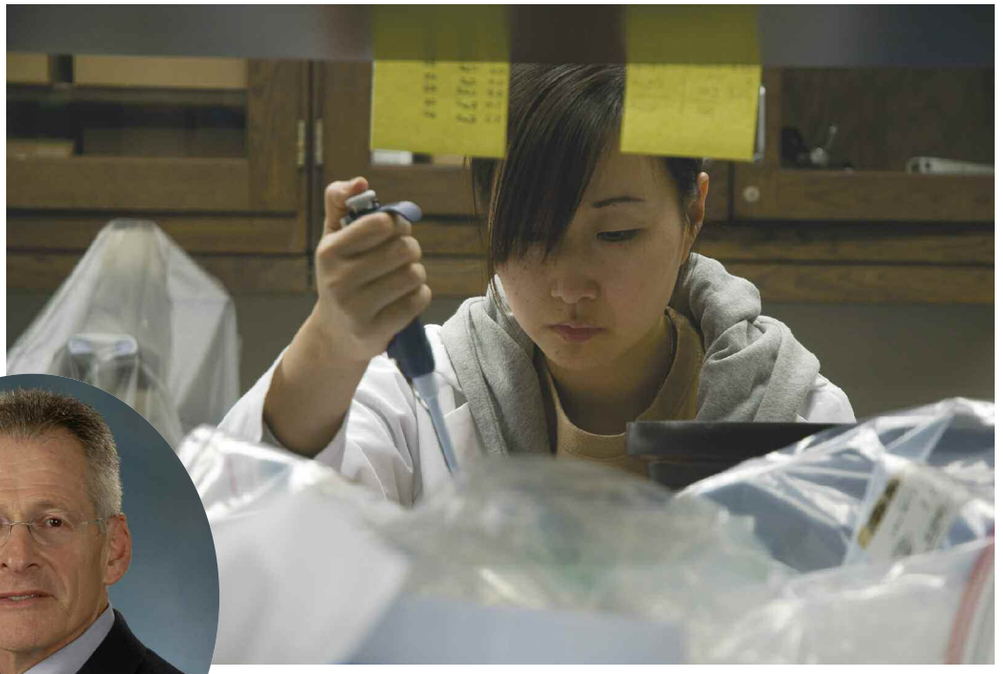
★ Dr. Gary Fiskum and his colleagues study the molecular mechanisms underlying ischemic and traumatic brain injury, using cell culture and animal models of adult and pediatric brain injury to understand how oxidative stress and mitochondrial dysfunction contribute to injury.

Acute brain injury caused by stroke, cardiac arrest, transient hypoxia, and head trauma affects over 1 million people each year in the U.S. alone. Our mission is to improve the survival and quality of life for brain injury victims through both basic and translational research to decipher the molecular mechanisms of neural cell death. Investigators also use tissue and fluid samples obtained from patients with traumatic brain injuries to validate the mechanisms elucidated from animal models and to identify accurate biomarkers of acute neurodegeneration.

★ Dr. Richard Dutton's research features collaborations with trauma general surgery, neurosurgery, orthopedics, radiology, physical and respiratory therapy, critical care, complementary medicine, and hematology. The largest funded cluster of projects is the ongoing work in traumatic brain injury, centered on the brain acoustic monitor (a new diagnostic device) as well as other imaging modalities, serial cytokine assays, investigational treatments, and neurocognitive assessment.

★ Dr. Tibor Kristian investigates the role of mitochondrial dysfunction in ischemic brain injury. He has generated unique transgenic mice with fluorescently-tagged neuronal mitochondria that enable visualization of morphological changes that precede cell death.

▼ *Research Assistant, Hyehyun Hwang, M.S.*



◀ Alan Faden, M.D.
Director, STAR Organized Research Center
David S. Brown Professor in Trauma
Professor of Anesthesiology

★ Peter Hu's research focuses on real-time patient vital signs data to predict life saving interventions, mobile telemedicine applications for rapid assessment of stroke patients, field collection of vital signs and images for trauma and mass casualty care and intra-hospital communication systems using video-audio-vital sign data. Several projects are also under way to determine the optimal management of the operating room, and to teach trauma anesthesiology and team performance.

This group conducts research to improve quality of trauma and critical care using human factors methodologies and information technologies. The long-term vision is to be a center of excellence in translational research related to real-time use of physiological data for decision support.

★ David Loane, Ph.D. has demonstrated a pathophysiological role for beta-amyloid in delayed injury after brain trauma and a protective role for alpha and beta secretase inhibition, and is currently focusing on the role of NADPH oxidase in chronic inflammation after experimental traumatic brain injury and neuronal cell death after microglial activation *in vitro.*

★ Brian Polster, Ph.D. examines subcellular mechanisms that govern neural cell death and survival in acute brain injury and neurodegenerative disorders, focusing on excitotoxic and apoptotic programmed cell death.

★ Bogdan Stoica, Ph.D. has studied various neuronal cell death mediators and has examined the protective effects of cyclin-dependent kinase and caspase inhibitors in *in vitro* and ***in vivo*** models.

Living Quality, Safety and Excellence

Primary Faculty

Afrangui, Beatrice M., M.D., Clinical Assistant Professor
Asaro, Lise R., M.D., Instructor
Atwal, Jasjit B., M.B.B.S., Clinical Assistant Professor
Bellefleur, Monique, M.D., Clinical Assistant Professor
Bernstein, Wendy K., M.D., Assistant Professor
Bharadwaj, Shobana, M.B.B.S., Assistant Professor
Bhatti, Anila S., M.B.B.S., Clinical Assistant Professor
Blenko, John W., M.D., Assistant Professor
Bochicchio, Daniel J., M.D., Assistant Professor
Boehm, Clifford E., M.D., Clinical Assistant Professor
Boyd, Malinda T., M.D., Clinical Assistant Professor
Bucci, Cynthia J., M.D., Assistant Professor
Conti, Bianca M., M.D., Assistant Professor
Darwish, Ribal S., M.D., Assistant Professor
Davis, Kathleen M., M.D., Assistant Professor
Del Rio, Isis, M.D., Assistant Professor
Deshpande, Seema P., M.B.B.S., Assistant Professor
Dimino, Mark D., M.D., Assistant Professor
Drago, John P., M.D., Clinical Assistant Professor
Dutton, Richard P., M.D., M.B.A., Clinical Professor
Faden, Alan I., M.D., Professor
Fiskum, Gary M., Ph.D., Professor
Fitzpatrick, Molly, M.D., Assistant Professor
Folgueras, Annette G., M.D., J.D., Clinical Assistant Professor
Fouche-Weber, LaRita Y., M.D., Assistant Professor
Gattu, Kanchana, M.B.B.S., Assistant Professor
Gheorghiu, Ileana, M.D., Assistant Professor
Gilbert, Timothy B., M.D., M.B.A., Professor
Grissom, Thomas E., M.D., Associate Professor
Hasnain, Jawad U., M.B.B.S., Assistant Professor
Haugh, Jeffrey T., M.D., Assistant Professor
Hu, Fu M., (Peter), M.S., Assistant Professor
Hyder, Mary L., M.D., Assistant Professor
Iglehart, Robyn C., M.D., Instructor
Ihenatu, Chinwe A., M.B.,Ch.B., Clinical Assistant Professor
Kristian, Tibor, Ph.D., Assistant Professor
Lee, Patrick L., M.D., Instructor
Lee, Seung J., M.D., Assistant Professor
Loane, David J., Ph.D., Faculty Member
Mackenzie, Colin F., M.B.,Ch.B., Clinical Professor
Malinow, Andrew M., M.D., Professor
Marks, Amy L., M.D., Assistant Professor
Martz, Douglas G., M.D., Associate Professor
Milholland, Arthur V., M.D., Ph.D., Clinical Assistant Professor
Moayed, Omid G., M.D., Clinical Assistant Professor
Murphy, Virginia E., MB.BCh.BAO, Clinical Assistant Professor
Nagle, Sheryl, M.D., Clinical Assistant Professor
Naik, Madhavi A., M.B.B.S., Clinical Assistant Professor
Njoku, Mary J., M.D., Associate Professor
Noorani, Robert J., M.D., Assistant Professor
Odonkor, Patrick N., M.B.,Ch.B., Assistant Professor
Polster, Brian M., Ph.D., Assistant Professor
Quaddoura, Amer A., M.D., Clinical Assistant Professor
Rock, Peter, M.D., M.B.A., Professor
Samet, Ron E., M.D., Assistant Professor
Savarese, Anne M., M.D., Assistant Professor
Sawant, Sanyogeeta, M.B.B.S., Clinical Assistant Professor
Schreibman, David L., M.D., Assistant Professor
Shepard, Eric K., M.D., Assistant Professor
Shere-Wolfe, Roger F., M.D., J.D., Assistant Professor
Shin, Baekhyo, M.D., Clinical Professor
Sidhu, Sukhwant, M.B.B.S., Instructor
Sikorski, Robert A., M.D., Assistant Professor
Sivaraman, Vadivelu, M.B.B.S., Assistant Professor
Smoot, Victoria W., M.D., Assistant Professor
Stein, Emily, M.D., Assistant Professor
Stephens, Christopher T., M.D., Assistant Professor
Stoica, Bogdan A., M.D., Faculty Member
Thomas, Padmini, M.B.B.S., Assistant Professor
Tung, Cynthia S., M.D., Assistant Professor
Turner, Shafonya M., M.D., Instructor
Udekwu, Obi R., M.B.B.S., Assistant Professor
Villamater, Edwin J., M.D., Assistant Professor
Wilson Jr, Henry L., M.D., Assistant Professor
Wright, Thelma B., M.D., Assistant Professor

Secondary Faculty (Primary Department)

Abrams, Thomas W., Ph.D., Associate Professor (Pharmacology and Experimental Therapeutics)
Frost, Douglas O., P.h.D., Clinical Professor (Pharmacology and Experimental Therapeutics)
Mighty, Hugh E., M.D., Associate Professor (Obstetrics and Gynecology)
Rosenthal, Robert E., M.D., Professor (Emergency Medicine)
Seagull, Frank J., Ph.D., Assistant Professor (Surgery)
Sears, Andrew L., Ph.D., Professor (Information Systems)
Sheth, Kevin N., M.D., Assistant Professor (Neurology)

Volunteer Faculty

Ashman, Michael N., M.D., Clinical Assistant Professor
Durant, Natasha, Psy.D., Clinical Assistant Professor
Helrich, Martin, M.D., B.S., Professor Emeritus
Kokoszka, Melissa J., M.D., Clinical Assistant Professor
Masur, Henry, M.D., Clinical Professor
Matjasko-Chiu, Jane M., M.D., Professor Emeritus
McAreavey, Dorothea, B.M.,B.Ch., Adjunct Assoc Professor
Natanson, Charles, M.D., Adjunct Professor
Ognibene, Frederick, M.D., Adjunct Assoc Professor
Shelhamer, James H., M.D., Adjunct Professor

Residents

CBY Class of 2013
Hoover, Jessica, M.D.
Huang, Andrea, M.D.
Mazur, Jordan, M.D.
Tao, Jing, M.D.
Walker, Andrew, M.D.
Wilson, Earl, M.D.

CA-1 Class of 2012
Akozer, Sibel, M.D.
Cox, Cristalle, M.D.
Goergen, Katie, M.D.
Kahntroff, Stephanie, M.D.
Lange, Aaron, M.D.
Lewis, Ilene, M.D.
Montgomery, Maurice, M.D.
Paydar, Kiarash, M.D.
Porter, Andrew, D.O.
Sappenfield, Joshua, M.D.
Steele, John, M.D.
Strauss, Erik, M.D.
Yu, Corinna, M.D.

CA-2 Class of 2011
Barack, Justin, M.D.
Baron, Matthew, D.O.
Cannon, Ayana, M.D.
Franklin, Christopher, M.D.
James, Shaka, M.D.
Mun, Kevin, M.D.
Patel, Sheena, M.D.
Sardarian, Leudvig, M.D.
Sheppard, Maurice, M.D.
Tsay, Minghan, M.D.
Vandyck, Kofi, M.D.

CA-3 Class of 2010
Ayanbule, Omolara, M.D.
Boss, Michael, M.D.
Brimhall, Brent, D.O.
Brouillette, Richard, D.O. - Chief Resident
Evering, Carlos, D.O.
Giles, Kevin, M.D.
Heath, Andrew, M.D. - Chief Resident
Horsford, Alisa, M.D.
Kabir, Riswanul, M.D.
Khoie, Arash, M.D.
Knightshead, Kandi, M.D.
Lai, Jason, M.D. - Chief Resident
Lindstrom, Mark, D.O.
Lockhart, Zakiya, M.D.
Poursharif, Naeem, M.D.
Riccobono, Elizabeth, D.O.

Fellows (Specialty)

Emamhosseini, Ali, M.D. (Pain Medicine)
Kalangie, Maudy, M.D. (Cardiothoracic Anesthesiolgy)
Roberts, Charles, M.D. (Pain Medicine)
Schiff, Keith, M.D. (Pain Medicine)
Stevens, Rom, M.D. (Critical Care)

CRNAs

Akpadiaha, Israel, CRNA
Atwood, Deborah, CRNA
Baker, Russ, CRNA
Batoon, Banjo, CRNA
Baxter, Michele, CRNA
Brant, Damian, CRNA
Broussard, Michael, CRNA
Ciurca, Robyn, CRNA
Cline, Cheryl, CRNA
Downey, Dale, CRNA
Downey, Leanne, CRNA
Drager, Emilene, CRNA
Esaka, Victorine, CRNA
Goetz, Linda, CRNA - *Chief Nurse Anesthetist*
Hagan, Shannon, CRNA
Howie, Bill, CRNA
Martin, Walter, CRNA
Miller, Sheree, CRNA
Murphey, Erika, CRNA
Nagbe, Lloyd, CRNA
Sampson, Cindy, CRNA
Sigalovsky, Alex, CRNA

▲ *Dr. Viginia Murphy interviews a patient via telephone in the PREP Center.*

Sigalovsky, Natalie, CRNA
Trainum, Tracey, CRNA
Turner, Deverie, CRNA
Wallace, Bernadette, CRNA
Webster, Jessica, CRNA
Wood, Tracy, CRNA

Transesophageal Echo Sonographers

Ezzati, Babak
March, Glenda
Shats, Inna - Supervisor

Neurophysiologic Monitoring Technologists

Babaran, Richie Cae CNIM, BSMT, RMT
Berlin, Samantha, BS
Ferguson, Bryan B., REPT, CNIM, MCSE - Supervisor
Gill, Danielle, BS, CNIM
Irle, Kary, BS, JD
Singson, Hy-D, CNIM, BSPH

Anesthesia Technicians

Anthony-Jung, Jane
Bolling, David
Fine, Jessica
Garrett, Roger
Graham, Lewis
Greason, Erin
Green, Tavon
Hawkins, Charles
Hubbard, Jeffrey
Jenkins, Kimberly
Johnson, Tonya
Lewis, Melvin
Moore, Corey
Oliver, Michael
Palmer, Myrona
Sheppard, Lanell
Silverio, Michelle - Supervisor
Tabron, Victor
Terry, Keith
Tobin, Rob
Volta, Victoria
Young, Nicole

Administration

Armiger, Josephine – Administrative Manager, Trauma
Brooks, Timothy – Manager of Information Technology
Burcham, Elizabeth – Sr. Faculty Coordinator
Cashwell, Wanda – Administrative Assistant III
Hughes-Wilde, Lisa, BS – Finance/Projects Analyst
Jones, David – Desktop Engineer
Kopchinski, Stephanie – Administrative Assistant II
Leshinskie, Vickie – Office Assistant
Levi, Michael – Assistant Residency Coordinator
McFadden, Debbie, BA – Financial Coordinator
Miller, Toni – Financial Coordinator
Pompanio, Emily – Administrative Assistant III, Trauma
Purcell, Maria – Sr. Residency Coordinator
Simmons, Hugh, MBA – Sr. Administrator
Sink, Jason, MBA – Finance and Operations Manager
Stubbs, La Toya, BS – Clinical Research Assistant
Utz, Julie, AS – AIMS System Administrator

Pain Management Center

Bower, Cathy, BSN, RN-BC – Clinical Nurse, Acute Pain
Clyde, Christina, MS, RN-BC – Nurse Manager
Cohen , Vicki, BSN, RN – Clinical Nurse
Conaway, Cherly – Medical Practice Representative
Denbow, Bernice, BSN, RN – Clinical Nurse
Durant, Natasha, Ph.D. – Licensed Clinical Psychologist
Duren, Elease – Medical Practice Representative
Elder, Jonathan, RT – Radiographer
Fitzsimmons, Karen, BSN, RN – Clinical Nurse
Garcia, Candy – Medical Practice Representative
Gibson, La-Vett – Medical Practice Representative, Team Leader
Lindenmeyer, Karen – Division Administrator
O'Connor, Karen, RN – Clinical Nurse
Ryan, Stefanie, PT – Physical Therapist
Stallings, Della, RN – Clinical Nurse
Williams, Christina – Administrative Assistant

Professional Billing Office

Blackwell, Laurie – Patient Account Representative
Clayton, Tracy, – Patient Account Representative
Diaz, Delores – Patient Account Representative
Flayhart, Kim, CMPE, CPC – Director of Professional Services
Hallinger, Judith, CPC – Billing Supervisor
Kizina, Shelly, – Patient Account Representative
Lifsey, Alice, CPC – Professional Coder
Loney, Dawn – Patient Account Representative
Nicholson, Tammy – Team Leader
Roehm-Tornel, Eta, MSW – Patient Account Representative
Sizemore, Judy, CPC – Professional Coder

Neuroprotection Lab Staff

Balan, Irina, Ph.D. – Post-doctoral fellow
Clerc, Pascaline, Ph.D. – Post-doctoral fellow
Mehrabyan, Zara, Ph.D. – Lab Manager
Hazelton, Julie, M.S. – Lab Manager
Racz, Jennifer, B.S. – Research Assistant
Greco, Tiffany, B.S. – Molecular Medicine Ph.D. student
Hwang, Hyehyun, M.S. – Research Assistant
Brown, Denise – Administrative Assistant

Publications Academic Year 2009

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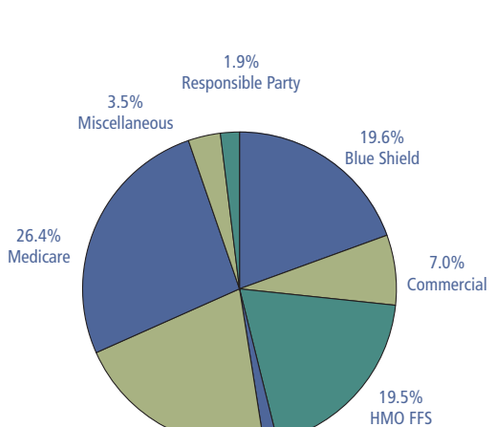
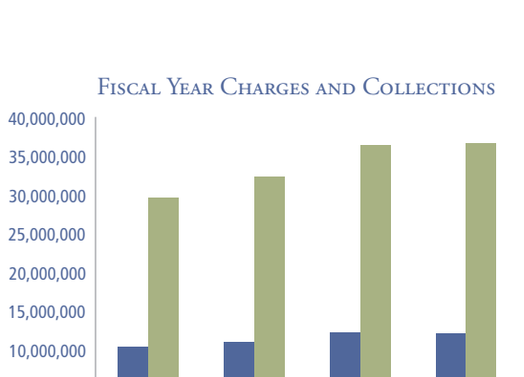
End of Year Summary

2009 Payer Mix



Fiscal Year Charges and Collections



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