Department of Anesthesiology

Anesthesiology is a medical specialty encompassing a broad range of medical and scientific activities. The clinical practice of anesthesiology includes:

1. assessment of, consultation for and preparation of patients for anesthesia and surgery;
2. provision of insensibility to pain during surgical, obstetric, therapeutic and diagnostic procedures;
3. monitoring and restoration of physiologic homeostasis during the perioperative period, as well as homeostasis in the critically ill or seriously injured patient;
4. diagnosis and treatment of painful syndromes; and
5. clinical management and teaching of cardiopulmonary resuscitation (CPR).

The realm of scientific investigation in anesthesiology also spans a broad range. Scientific efforts at the cellular and molecular levels are directed to understanding the molecular mechanisms of anesthesia and analgesia. Clinical research in anesthesia includes broad epidemiological approaches to identifying indicators of outcome as well as prospective clinical studies examining new technologies, anesthetic agents and methods.

The Department of Anesthesiology (http://anest.wustl.edu) presents the student with the opportunity to:

1. acquire and apply pharmacologic knowledge related to anesthetic, narcotic, paralytic and sedative drugs and to drugs affecting the autonomic nervous system;
2. understand and apply the basic principles of airway management and mechanical ventilation;
3. understand and apply the principles of cardiopulmonary resuscitation;
4. understand and apply the technical skills and anatomic and pharmacologic knowledge used in performing regional nerve blocks;
5. learn and apply the fundamental principles of acute and chronic pain management; and
6. learn and apply the basic principles of critical care medicine.

Anesthesiology bridges the gap between basic science and clinical medicine. It provides experience in the clinical evaluation and management of patients, and in applied physiology and pharmacology. The Department of Anesthesiology offers student experiences in the operating room, the intensive care unit, the pain clinic and the laboratory.

Website: http://anest.wustl.edu

Degrees & Requirements

While the Department of Anesthesiology does not offer its own degree, some of the department's courses are open to students in the MD and MSTP (MD/PhD) programs. Further information about the MD and MSTP degrees can be found in the Degrees & Programs Offered (http://bulletin.wustl.edu/medicine/degrees) section of this Bulletin.

Research

Research Electives in Anesthesiology

Special electives in basic science research as it applies to anesthesiology can be arranged with the principal investigators in the Department of Anesthesiology (http://anest.wustl.edu), in the Anesthesiology Research Unit and the Washington University Pain Center under the direction of Rob Gereau, PhD, or the Division of Clinical and Translational Research under the direction of Michael Avidan, MBBC. These laboratories focus on various aspects of molecular neurobiology, including ion channel structure and function; G-protein molecular biology; molecular mechanisms of anesthetic action; genetics of anesthetic responsiveness; and the molecular, cellular and genetic basis of acute and chronic pain and itch. Arrangements for these special electives are made through the specific investigators: Walter A. Boyle III, MD; Zhou-Feng Chen, PhD; Alex S. Evers, MD; Narasimhan Gautam, PhD; Richard S. Hotchkiss, MD; Christopher J. Lingle, PhD; Gustav Akk, PhD; Michael Bruchas, PhD; Yu-Qing Cao, PhD; Robert W. Gereau, PhD; DP Mohapatra, PhD; or Jose Moron-Concepcion, PhD. In addition, opportunities exist for clinical research under the direction of Michael Avidan, MBBC; Evan Kharasch, MD, PhD; Peter Nagele, MD; or Ben Palanca, MD, PhD.

Faculty

Department Chair
Alex S. Evers, MD

Department Vice Chair
Ellen M. Lockhart, MD

Visit our website for more information about our faculty (http://anest.wustl.edu/about/faculty) and their appointments.

A

Enyo Ama Abiorodeppy, MD, M PH  
Assistant Professor of Anesthesiology (primary appointment)  
Assistant Professor of Emergency Medicine in Medicine  
MD University of Pittsburgh 2007  
M PH University of Pittsburgh 2007

Sirajuddin Agha, MBBS  
Assistant Professor of Anesthesiology (primary appointment)  
MBBS Liaquat Medical College 1969
Gustav Akk, PHD
Associate Professor of Anesthesiology (primary appointment)
BS Moscow State University 1991
PHD State Univ of NY Buffalo 1997

Ream Al-Hasani, PHD
Adjunct Assistant Professor of Anesthesiology (primary appointment)
PHD University of Surrey 2009

Amrita Aranake-Chrisinger, MD, BS1
Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)
MD Washington Univ in St. Louis 2013
BS Rutgers University 2008
BS1 Rutgers University 2008

Umeshkumar Athiraman, MD
Assistant Professor of Anesthesiology (primary appointment)
MD M.G.R. Medical University 2013

Jacob D Aubuchon, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of MO Kansas City 2008
BA University of MO Kansas City 2005

Michael Simon Avidan, MBBCH
Professor of Anesthesiology (primary appointment)
Professor of Surgery (Cardiothoracic Surgery)
MBBCH University of the Witwatersra 1991

Sennaraj Balasubramanian, PHD, MD
Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)
PHD College of Anesthesiology 2008
BS Tirunelveli Medical College 1992
MD All-India Inst of Medical Sci 1998

Devin M Barry, PHD
Instructor in Anesthesiology (primary appointment)
PHD University of MO St Louis 2012

Holger Matthias Baumann, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Free University of Berlin 1988

Arbi Ben Abdallah, PHD
Assistant Professor of Anesthesiology (primary appointment)
PHD Washington Univ in St. Louis 2011

George Richard Benzinger III, MD, PHD
Associate Professor of Anesthesiology (primary appointment)
BS California Institute Technolo 1993
MD University of Chicago 2000
PHD University of Chicago 1998

Michael M Bottros, MD
Associate Professor of Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 2006

Walter A Boyle III, MD
Professor of Anesthesiology (primary appointment)
Assistant Professor of Developmental Biology
Professor of Surgery (General Surgery)
BS University of CA San Francisco 1974
MD University of CA San Francisco 1977

Michael Raymond Bruchas, PHD
Henry Eliot Mallinckrodt Professor of Anesthesiology (primary appointment)
Associate Professor of Neuroscience
PHD Creighton University 2004

Yuqing Cao, PHD
Associate Professor of Anesthesiology (primary appointment)
BS Fudan University 1989
PHD University of CA San Francisco 1999

Laura Francesca Cavallone, MD
Associate Professor of Anesthesiology (primary appointment)
MD University of Milan 1993

Samuel Chandra, MD
Instructor in Clinical Anesthesiology (primary appointment)
MD Patna Medical College 1990

Zhoufeng Chen, PHD, MS
Russell D and Mary B Shelden Professor of Anesthesiology (primary appointment)
Professor of Developmental Biology
Professor of Psychiatry
BS Wuhan University 1983
PHD University of Texas Austin 1994
MS School Not Listed 1987

Ziwei Chen, MBBS, MS, PHD
Assistant Professor of Anesthesiology (primary appointment)
MBBS Dalian Medical University 1995
MS Dalian Medical University 1998
PHD Peking University 2001

Wayland W. Cheng, PHD, MD
Instructor in Anesthesiology (primary appointment)
PHD Washington Univ in St. Louis 2012
MD Washington Univ in St. Louis 2012
BS Wheaton College 2005

Kelly Lynne Chilson, MD
Associate Professor of Anesthesiology (primary appointment)
MD University of MO St Louis 1999

James Close, MD
Associate Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)
BA Washington Univ in St. Louis 1980
MD Washington Univ in St. Louis 1984
Albert Murray Cohen, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Baylor University 1977

Bryan A Copits, PHD
Instructor in Anesthesiology (primary appointment)
PHD Northwestern University 2012

Susan Carlin Cosgrove, MD
Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)
BA New York University 2008
MD New York Medical College 2012

Thomas E Cox, MD
Professor of Anesthesiology (primary appointment)
MD University of Virginia 1985
BA Johns Hopkins University 1981

Michael John Cuipa, MD
Instructor in Clinical Anesthesiology (primary appointment)
MD University of Massachusetts 1994
BS Tufts University 1988

Bakul Dave, MD1, MD
Assistant Professor of Anesthesiology (primary appointment)
MD1 University of Toledo 1997
MD BJ Medical College 1984

Thomas Allen Davis, MD
Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)
MD University of Tenn Memphis 1969

Charl Johan De Wet, MBCHB
Professor of Anesthesiology (primary appointment)
Professor of Surgery (Cardiothoracic Surgery)
MBCHB University of Pretoria 1990

Julianne Elizabeth Donnelly, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Surgery (Cardiothoracic Surgery)
MD University of Kansas 2009

Anne Meredith Drewry, MD
Associate Professor of Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 2006

Julie Kosto Drobish, MD
Assistant Professor of Anesthesiology (primary appointment)
BS Pennsylvania State University 2006
MD Washington Univ in St. Louis 2009

Nicole Marie Durko, DOST
Assistant Professor of Anesthesiology (primary appointment)
BS St Xavier University 1995
DOST Midwestern University 2001

Pablo Michael Echeverria, MD
Instructor in Clinical Anesthesiology (primary appointment)
MD Universidad Central del Ecuado 2002

Daniel Emmert, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Surgery (Cardiothoracic Surgery)
MD Saint Louis University 2005

Alex S Evers, MD
Henry E Mallinckrodt Professor of Anesthesiology (primary appointment)
Head of the Department of Anesthesiology
Professor of Developmental Biology
Professor of Medicine
MD New York University 1978
BS Yale University 1974

James J Fehr III, MD
Professor of Anesthesiology (primary appointment)
Professor of Pediatrics
MD Davenport University 1988
BA Davenport University 1984

Steven Edward Feit, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of MO Columbia 1982
BA Indiana State University 1978

Mitchell Evan Fingerman, MD
Associate Professor of Anesthesiology (primary appointment)
MD University of Connecticut 2004

Rosemary Foster, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Saint Louis University 2013

David Alan Friedman, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of Kansas 1985
BS University of Kansas 1981

Narasimhan Gautam, MS, PHD
Professor of Anesthesiology (primary appointment)
Professor of Genetics
MS School Not Listed 1979
BS School Not Listed 1977
PHD University of Bombay 1985

Preeta George, MBBS
Assistant Professor of Anesthesiology (primary appointment)
MBBS Bangalore University 1998

Robert W Gereau, PHD
Dr Seymour and Rose T Brown Professor of Anesthesiology (primary appointment)
Professor of Neuroscience
PHD Emory University 1995
BS Southwest Missouri St Universi 1991

Erin A Gibbons, MD
Assistant Professor of Anesthesiology (primary appointment)
BS University of North Carolina 2003
MD University of North Carolina 2008

Jason R Gillihan, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Southern Illinois University 2006
BS University of Southern Indiana 2002

Yehuda Ginosar, MD
Professor of Anesthesiology (primary appointment)
MD University of London 1986

Thomas James Goblirsch, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Loyola University Chicago 1985
BS University of Notre Dame 1980

Judith P Golden, PHD, MA
Assistant Professor of Anesthesiology (primary appointment)
PHD Saint Louis University 1994
MA Hofstra University 1986
BS Hofstra University 1984

Vivian Maria Gonzalez-Perez, PHD
Instructor in Anesthesiology (primary appointment)
PHD University of Valparaiso 2009

Thomas J Graetz, MD
Associate Professor of Anesthesiology (primary appointment)
Associate Professor of Surgery (Cardiothoracic Surgery)
MD Saint Louis University 2005

Stephen H Gregory, MD
Instructor in Anesthesiology (primary appointment)
MD Saint Louis University 2012

Russell J.L. Groener, MBCHB
Associate Professor of Anesthesiology (primary appointment)
MBCHB University of Cape Town 1983

Anthony Herbert Guarino, MD, MA
Associate Professor of Anesthesiology (primary appointment)
MD University of Maryland 1992
MA Yale University 1988
BA Yale University 1986

Ryan C Guffey, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Wayne State University 2007

H

Charles B Hantler, MD, MA

Professor of Anesthesiology (primary appointment)
MD Davenport University 1977
BS Davenport University 1971
MA Davenport University 1973

Courtney Alan Hardy, MD
Associate Professor of Anesthesiology (primary appointment)
MD Loyola University Chicago 2000

Simon Haroutounian, MA, PHD
Assistant Professor of Anesthesiology (primary appointment)
MA Hebrew University 2005
PHD Hebrew University 2011

Daniel Luke Helsten, MD
Associate Professor of Anesthesiology (primary appointment)
MD University of Kentucky 2001
BS University of Kentucky 1997

Mohammad Anas Helwani, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Surgery (Cardiothoracic Surgery)
MD Damascus University 1998

Robert E Herold, MD
Assistant Professor of Anesthesiology (primary appointment)
BA Wabash College 1970
MD Washington Univ in St. Louis 1974

Omokhaye M Higo, MBBS
Associate Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)
BS University of Ibadan 1984
MBBS University of Ilorin 1990

Gary E Hirshberg, MD
Professor Emeritus of Anesthesiology (primary appointment)
BA Princeton University 1968
MD Hahnemann University 1972

Richard S Hotchkiss, MD
Professor of Anesthesiology (primary appointment)
Professor of Developmental Biology
Professor of Medicine
Professor of Surgery (General Surgery)
MD University of Virginia 1976

Hawpeng Stephen Hsu, MD, MS
Assistant Professor of Anesthesiology (primary appointment)
BA Georgia St University 1991
MD Taipei Medical University 1983
MS Emory University 1993

Hongzhen Hu, PHD
Associate Professor of Anesthesiology (primary appointment)
MD Ohio State University 2004

Rocco Hueneke, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Martin-Luther-University 1996
Catherine Ifune, MD, PHD
Associate Professor of Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 1997
PHD Washington Univ in St. Louis 1990
BS California Institute Technolo 1985

Selma E.h.o. Ishag, PHD, MD
Assistant Professor of Anesthesiology (primary appointment)
PHD University of Khartoum 1996
MD University of Khartoum 1987

Ivan M Kangrga, PHD, MD
Professor of Anesthesiology (primary appointment)
PHD Iowa State University 1991
MD University of Belgrade 1982

Menelaos Karanikolas, MD, MD1
Associate Professor of Anesthesiology (primary appointment)
MD Athens University Med School 1988
MD1 School Not Listed 1998

Jan Kasal, MD
Associate Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)
MD Charles University 1993

Jacob Brian Keeperman, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Emergency Medicine in Medicine
MD Loyola University Chicago 2006

Rainer Kentner, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of Tuebingen 1987

Paul William Kerby, MBBS
Assistant Professor of Anesthesiology (primary appointment)
BS King's College London 2001
MBBS King's College London 2004

Evan David Kharasch, MD, PHD
Russell and Mary Shelden Professor of Anesthesiology (primary appointment)
Professor of Biochemistry and Molecular Biophysics
MD Northwestern University Med 1984
PHD Northwestern University Med 1983

Shahrdad Khodamoradi, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 1990
BA Vanderbilt University 1985

Tessa Marie King, MD1, MD
Assistant Professor of Anesthesiology (primary appointment)
MD1 School Not Listed 1993
MD University of Kansas 1997

BA School Not Listed 1993

Justin Knittel, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Case Western Reserve Univ 2009

Andreas Stefan Kokoefer, MD, PHD
Instructor in Anesthesiology (Pending Executive Faculty Approval) (primary appointment)
MD Medical University Graz 2008
PHD Paracelsus Medical University 2015

Helga Komen, MD
Instructor in Anesthesiology (primary appointment)
MD University of Zagreb 1996

Joseph F Kras, DDENT, MD
Associate Professor of Anesthesiology (primary appointment)
DDENT Loyola University Chicago 1982
MD Hahnemann University 1991
BS Loyola University Chicago 1977

Catherine P Krucylak, MD
Assistant Professor of Anesthesiology (primary appointment)
MD U Medical-Dental Of New Jersey 1986
BA Rutgers University 1982

Anand Lakshminarasimhachar, MBBS
Associate Professor of Anesthesiology (primary appointment)
MBBS Bangalore University 1994

Chakrapol Lattanand, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Hahnemann University 2000

Chris Cheng-Fu Lee, MD, PHD
Associate Professor of Anesthesiology (primary appointment)
MD Hubel Medical University 1985
PHD Beijing Medical University 1991

Christopher J Lingle, PHD
Professor of Anesthesiology (primary appointment)
Professor of Neuroscience
PHD University of Oregon 1979
BS University of Oregon 1972

Qianjin Liu, PHD, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Nanjing Medical University 1983

Qin Liu, PHD
Assistant Professor of Anesthesiology (primary appointment)
PHD Chinese Academy of Sciences 2004

Salvador Lo Bianco, MD
Instructor in Clinical Anesthesiology (primary appointment)
MD Univ Autonoma de Guadalajara 1987
Ellen M Lockhart, MD
Professor of Anesthesiology (primary appointment)
Vice Chairman of Anesthesiology
MD University of Texas Southwest 1993
George Alan Lodoly, MD
Instructor in Clinical Anesthesiology (primary appointment)
MD Saint Louis University 1984
BS Saint Louis University 1980

M

Jackie Lee Martin, MA, MBA, MD
Adjunct Professor of Anesthesiology (primary appointment)
MA Meharry Med College 1980
MBA John Hopkins University 2010
MD Meharry Med College 1984
BA Howard University 1976
Paolo Masetti, MD
Instructor in Clinical Anesthesiology (primary appointment)
MD University of Bologna 1985
Nicolas Massaly, PHD
Instructor in Anesthesiology (primary appointment)
PHD Universite Paul Sabatier 2012
John D McAllister, MD
Professor of Anesthesiology (primary appointment)
Professor of Pediatrics
BS University of Manitoba 1982
MD University of Manitoba 1980
Jordan Gary McCall, PHD
Assistant Professor of Anesthesiology (primary appointment)
PHD Washington Univ in St. Louis 2014
Molly Ann McCormick, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of MO Columbia 1987
Heather McKenzie, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Loma Linda University 2005
Konrad Meissner, MBBS
Adjunct Instructor in Anesthesiology (primary appointment)
MBBS University of Leipzig 1998
Allison Denise Mitchell, MD
Instructor in Anesthesiology (primary appointment)
MD Univ Texas Health Sci San Anto 2012
BS Howard University 2008
Durga Prasanna Mohapatra, PHD
Associate Professor of Anesthesiology (primary appointment)
PHD University of Erlangen 2011
David Thomas Monks
Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)
Michael C. Montana, MD
Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)
MD Washington Univ in St. Louis 2012
BA University of Virginia 2003
Robert Paul Moore, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 2004
Jose Moron-Concepcion, PHD
Associate Professor of Anesthesiology (primary appointment)
Associate Professor of Neuroscience
PHD University of Barcelona 1998
Jeremiah J Morrissey, PHD
Professor of Anesthesiology (primary appointment)
BA Macmurray College 1969
PHD Saint Louis University 1974
Jimmy Lewis Moss, MD
Instructor in Clinical Anesthesiology (primary appointment)
BS Florida State University 2010
MD Florida State University 2015
David J Murray, MD
Carol B. and Jerome T. Loeb Professor of Anesthesiology (primary appointment)
MD University of Saskatchewan 1978
BS University of Saskatchewan 1973
Guido Musch, MD
Professor of Anesthesiology (primary appointment)
MD University of Milan 1993

N

Joan M Niehoff, MD
Associate Professor of Anesthesiology (primary appointment)
BA University of MO Kansas City 1982
MD University of MO Columbia 1982
Daniel C Nieva, MD
Associate Professor of Anesthesiology (primary appointment)
MD University of Iowa 2003
BS University of Iowa 1998
Aaron John Norris, PHD, MD
Instructor in Anesthesiology (primary appointment)
BS Colorado St University 2001
PHD Washington Univ in St. Louis 2012
MD Washington Univ in St. Louis 2012
Sydney Marie Nykiel-Bailey, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of MO Kansas City 2005
BS Saint Louis University 2001
Patrick Ross O'Neill, PHD
Assistant Professor of Anesthesiology (primary appointment)
BS University of California 2004
PHD University of California 2010

Folasade Oladapo, MD
Assistant Professor of Anesthesiology (primary appointment)
MD U Medical-Dental Of New Jersey 2008

Lawrence Osei
Instructor in Clinical Anesthesiology (primary appointment)

Ben Julian Palanca, MD
Assistant Professor of Anesthesiology (primary appointment)
BS University of Washington 1997
MD Washington Univ in St. Louis 2005

Arvind Palanisamy, PHD, MD
Assistant Professor of Anesthesiology (primary appointment)
PHD All-India Inst of Medical Sci 2003
MD Tamilnadu Medical University 2000

Chris M Palmer, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Emergency Medicine in Medicine
BS Virginia Tech 2004
MD SUNY - Empire State College 2008

Pooja Patil, MD
Instructor in Clinical Anesthesiology (primary appointment)
MD Shai Medical College 2006

Patricia A. Penkoske, MD
Instructor in Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 1974
BS Lindenwood University 1969

Mitchell R Platin, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Kent St University 1987

Adrianne Rae Poe, PHD
Instructor in Anesthesiology (primary appointment)
PHD Washington St University 2011

Debra D Pulley, MD, MME
Associate Professor of Anesthesiology (primary appointment)
MD Saint Louis University 1987
BS Vanderbilt University 1978
MME University of MO Columbia 1982

Carlos Angel Puyo, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Juan N Corpas School of Medici 1989

Lesley Kathryn Rao, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Saint Louis University 2006

Rashmi R Rathi, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of Illinois 2007

Jebadurai Ratnaraj, MD, MD1
Assistant Professor of Anesthesiology (primary appointment)
MD Madurai Kamaraj University 1979
MD1 Northrhein Westfalen Medical 1985

Eduardo Reina, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of Illinois Chicago 2011

Michal Todd Rice, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Univ of Texas San Antonio 2002

Clare H Ridley, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Surgery (Cardiothoracic Surgery)
BA Columbia College of Phy & Surg 2002
MD Washington Univ in St. Louis 2008

Stephen L. Ristvedt, MA, PHD
Associate Professor of Anesthesiology
Associate Professor of Psychiatry
BA University of Minnesota 1981
MA University of Pennsylvania 1983
PHD University of Pennsylvania 1989

Evan Ward Roller, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of Cincinnati 2010

Adnan Sadiq, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Surgery (Cardiothoracic Surgery)
BS State Univ of NY Buffalo 1996
MD Royal College of Surgeons 2001

Angela K Saettele, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of MO Columbia 2008
BS Simpson College 2004

Vijaya K Samineni, PHD
Instructor in Anesthesiology (primary appointment)
PHD Southern Illinois University 2013

Charles R Schrock, MD
Associate Professor of Anesthesiology (primary appointment)
MD University of MO Columbia 1991
BS University of Notre Dame 1986

Anne Stella Sebastiansi, MD
Instructor in Anesthesiology (primary appointment)
MD Johannes Gutenberg University 2008
Karen Seibert, MA, PHD
Professor of Anesthesiology (primary appointment)
Professor of Genetics
Professor of Pathology and Immunology
MA University of Toledo 1983
PHD Vanderbilt University 1987
BS Northwestern University 1981

James Serot, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Loyola University Chicago 2006

Rajiv K Shah, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of Rochester 2010

Sonia Malhotra Shahrawat, MD
Instructor in Anesthesiology (primary appointment)
MD Bharati Vidyapeeth Med College 2000
BS Tufts University 2001

Anshuman Sharma, MD
Professor of Anesthesiology (primary appointment)
MD Institute of Medical Science 1990
BA Government Medical College 1987

Andrew John Shepherd, PHD
Instructor in Anesthesiology (primary appointment)
PHD University of Manchester 2006

John Charles Spitler, MD
Assistant Professor of Anesthesiology (primary appointment)
BS University of MO Columbia 1998
MD University of MO Columbia 2003

Tracey Wagner Stevens, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 2008

Sanjay Subramanian, MD
Associate Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)
MD Christian Medical College 1994

Robert A Swarm, MD
Professor of Anesthesiology (primary appointment)
BA Oberlin College 1978
MD Washington Univ in St. Louis 1983

Martha Zorko Szabo, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Medical College of Ohio 1990

Rene Tempelhoff, MD
Professor of Anesthesiology (primary appointment)
Professor of Neurological Surgery
MD University of Lyon 1974

Raghu P Terkonda, MD
Assistant Professor of Anesthesiology (primary appointment)
BS University of MO Columbia 1983
MD University of MO Columbia 1987

Douglas Royce Thompson, MD
Associate Professor of Anesthesiology (primary appointment)
MD University of CA San Diego 2003
BS University of CA San Diego 1998

Swarup Varaday, MBBS
Assistant Professor of Anesthesiology (primary appointment)
MBBS Andhra University 1989

Anandhalakshmi Varadharajan, MBBS, MD
Instructor in Clinical Anesthesiology (primary appointment)
MBBS Siriramachandra Medical College 2000
MD St. Lukes 2007

Molly Rose Vila, MD
Instructor in Anesthesiology (primary appointment)
MD U Medical-Dental Of New Jersey 2011

Gershon Ram Volotzky, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Tel-Aviv University 1979

Ashley Brooke Weinhold, MD
Assistant Professor of Anesthesiology (primary appointment)
MD University of Arkansas 2011

Timothy P Welch, MD
Assistant Professor of Anesthesiology (primary appointment)
Assistant Professor of Pediatrics
MD University of Cincinnati 2004

Brian T Wessman, MD
Associate Professor of Anesthesiology (primary appointment)
Associate Professor of Emergency Medicine in Medicine
MD Commonwealth College 2005
BS College of William and Mary 2000

Troy S Wildes, MD
Associate Professor of Anesthesiology (primary appointment)
MD Washington Univ in St. Louis 2002
BS Illinois Wesleyan University 1998

Brett D Wolff, MD
Associate Professor of Anesthesiology (primary appointment)
BA Indiana University Bloomington 1981
MD Indiana University Bloomington 1985

Xiaoming Xia, PHD, MS
Assistant Professor of Anesthesiology (primary appointment)
BS Fudan University 1984
PHD Vollum Institute OHSU 1998
problems, resuscitation and trauma emergencies. By the end of
the rotation, the student should be able to independently (under
supervision) provide anesthesia for uncomplicated surgical
procedures. Note: Presence and participation in the three Friday
Simulator Sessions and the Presentation on the last day of the
rotation are required to receive a grade. If there is a conflict with
attendance, prior arrangements can be made to accommodate
the student.

M10 Anesth 811 Cardiothoracic Anesthesiology
This clinical elective offers practical experience in the
perioperative assessment and management of surgical patients
undergoing cardiothoracic procedures. The student, as an
integral part of the cardiothoracic anesthesia team that is
composed of faculty members, fellows and residents, will learn
basic principles of airway management and lung ventilation,
essential aspects of pharmacologic treatment of hemodynamic
abnormalities and cardiac dysrhythmias, and management
of intraoperative coagulation disturbances. Emphasis will be
placed on the interpretation of intraoperative hemodynamic data,
echocardiographic finding (TEE), and laboratory results. During
this rotation, the student will also gain practical experience in
dotracheal intubation as well as the placement of intravenous
lines and invasive monitoring lines, including radial artery and
pulmonary artery catheters. Students will learn how to use these
parameters in clinical decision making during anesthesia. At
the conclusion of the rotation, the student will have a better
understanding of invasive monitoring and data interpretation, as
well as a more systematic approach to the management of intra-
and postoperative hemodynamic, pulmonary and coagulation
abnormalities. The students are expected to attend the didactic
sessions of CTA and the Department of Anesthesiology. A
presentation will be assigned.

M10 Anesth 812 Pediatric Anesthesia
This clinical elective is designed to teach the theory and practice
of pediatric anesthesiology and pain management. It features
individualized instruction with faculty who specialize in the
perioperative care of pediatric patients. The elective consists of
eight weeks of active participation with pediatric anesthesiologists
at St. Louis Children's Hospital and St. Louis Shriners Hospital
learning preanesthetic assessment, the performance of routine
anesthetics (which includes instruction and practice in pediatric
airway skills), learning other technical skills such as intravenous
line placement and the management of post-anesthesia care
procedures. Note: Presence and participation in the three Friday
Simulator Sessions and the Presentation on the last day of the
rotation are required to receive a grade. If there is a conflict with
attendance, prior arrangements can be made to accommodate
the student.

Courses
Visit online course listings to view offerings for M10 Anesth

M10 Anesth 805 Anesthesiology
This clinical elective is designed to familiarize the student
with basic aspects of anesthesiology practice. The primary
teaching method is patient care in a clinical setting (one-on-
one). The student will learn the basics of preoperative evaluation
of surgical patients, the use of intraoperative monitoring in
patient management and postoperative care. During the four-
week rotation, the student will learn airway management skills,
practical perioperative fluid and electrolyte therapy, along with
general and regional anesthetic techniques. As an integral part
of the anesthesia care team, the student will participate
actively in the anesthetic management of surgical patients.
The student's specific requests to be assigned to certain types
of cases will be honored as time and availability dictate. The
rotation will include three clinical simulator sessions using
a simulator mannequin for practical management of airway
problems, resuscitation and trauma emergencies. By the end of

Y
Braden Edward Yee, MD
Assistant Professor of Anesthesiology (primary appointment)
BS Tufts University 2004
MD Tufts University 2008

Xiaobin Yi, MD
Associate Professor of Anesthesiology (primary appointment)
MD Hunan Medical University 1985

Alexander H Young, MD
Assistant Professor of Anesthesiology (primary appointment)
BA University of Mississippi 1986
MD University of Arkansas 1990

Anna Rebecca Young, MD
Assistant Professor of Anesthesiology (primary appointment)
BS Asbury College 2004
MD University of Kentucky 2008

Yu Zhou, PHD, MS
Instructor in Anesthesiology (primary appointment)
PHD State Univ of NY Buffalo 2005
BS Wuhan University 1996
MS Zhejiang Medical University 1999

Jonathan Kramer Zoller, MD
Instructor in Anesthesiology (Pending Dean's Approval) (primary
appointment)
MD Tulane University 2009

Z
Jessica Ann Zenga, MD
Assistant Professor of Anesthesiology (primary appointment)
MD Saint Louis University 2006

BS Wuhan University 1996
MS Zhejiang Medical University 1999

MS Shanghai Jiao Tong University 1987

M10 Anesth 819 Cardiothoracic Critical Care
This clinical elective offers practical experience in the
perioperative management of cardiothoracic patients. The student
will be fully integrated into the intensive care team and have
the opportunity to contribute to the management of critically
ill patients. Students will be afforded the opportunity to follow
specific patients over the course of their stay on the ICU, during
which time they will gain insight into holistic management of
patients with multi-organ dysfunction. The CTICU environment
is both challenging and exciting. Cardiorespiratory physiology
and pharmacology will be demonstrated at the patients' bedside,
an invaluable and unforgettable learning experience. Students
will have numerous opportunities to learn and sometimes assist with procedures, such as central lines, chest tubes, bronchoscopy and pulmonary artery catheter insertion. Principles of management and resuscitation of hemodynamically unstable patients following surgery will be emphasized. Students will also see and help manage patients on ventricular assist devices, ECMO, and following heart and lung transplantation. At the conclusion of the rotation, the student will have a better understanding of shock, sepsis, multi-organ failure, organ system support and compassionate withdrawal of life support. In addition to bedside teaching, there will be informal teaching sessions on a wide variety of topics as well as teaching on interpreting cardiac echo exams. Students will be encouraged to present on their patient at morning ward rounds, during which constructive feedback and interactive teaching will occur. Students will present on a topic related to one of their patients at the end of the block.

M10 Anesth 820 Critical Care
Students on this rotation are integral members of the multidisciplinary intensivist-led critical care team in the Surgical Intensive Care Unit (SICU). Students learn an organ systems-based approach for evaluation and management of critically ill and injured patients, and application of evidence-based principles in delivery of state-of-the-art critical care. Emphasis is placed on critical care knowledge and techniques used at the bedside in the clinical management of serious traumatic and surgical conditions. Students become familiar with resuscitation and cardiopulmonary support, including methods for noninvasive and invasive hemodynamic monitoring, and techniques for airway management and pulmonary support in respiratory failure. Basic knowledge and skills in the management of neurologic injuries, liver and/or renal failure, and life-threatening infections in the surgical patient are also taught, as is the importance of treatments to alleviate anxiety and pain, maintain fluid and electrolyte balance, and provide adequate nutrition. Practical experience is gained in placement of vascular access devices, interpretation of laboratory data, and use of guidelines, protocols and quality assurance tools in the management of critically ill patients.

M10 Anesth 821 Pain Management
Acute pain is the most common symptom of medical illness and is ubiquitous after major surgery. Chronic pain is the leading cause of worker disability. Severe pain afflicts most people with advanced cancer. Learning the fundamentals of pharmacologic, interventional, and multidisciplinary pain management is important for all areas of clinical medicine. Rotation is based at Barnes-Jewish Hospital with focus adjusted to meet student's interest and career plans.

M10 Anesth 821B Pain Management - Missouri Baptist Medical Center
Acute pain is the most common symptom of medical illness and is ubiquitous after major surgery. Chronic pain is the leading cause of worker disability. Severe pain afflicts most people with advanced cancer. Learning the fundamentals of pharmacologic, interventional, and multidisciplinary pain management is important for all areas of clinical medicine. Rotation is based at Missouri Baptist Medical Center with focus adjusted to meet student's interest and career plans.

M10 Anesth 822 Anesthesia for Neurosurgery
Students will help care for patients having challenging neurosurgical procedures. Students will become familiar with complex procedures, brain monitoring, cardiovascular support and airway management and will be exposed to all kinds of neurosurgical pathology. Student must be prepared to participate in the intricate anesthetic management of patients undergoing surgery in our novel intraoperative MRI rooms. For those interested, clinical research projects are ongoing and student participation is encouraged.

M10 Anesth 823 Obstetrical Anesthesia
The medical students will learn the different analgesia/anesthetic options for the labor patient. They will also learn how the physiological adaptations of pregnancy influence anesthetic management. They will be actively involved in the parturient's management, i.e., starting an IV, placement of spinal, epidural or CSE (combined spinal epidural) anesthetics. They will also attend the OB anesthesia conferences and interview patients in labor (with an OB anesthesia attending).

M10 Anesth 900 Research Elective - Anesthesiology
Research opportunities may be available. If interested, please contact the Department of Anesthesiology.