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## **ANESTHESIOLOGY**

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### **BRIEF DESCRIPTION**

The Department of Anesthesiology, a comprehensive anesthesiology service, is staffed with generalists and specialty experts who care for patients during procedures ranging from complicated pediatric to cardiac, neurosurgery and organ transplantation. The department works closely with all clinical departments to provide the full spectrum of anesthesia care and consultation to patients of all ages. The department also provides medical direction for the Post-Anesthesia Care Unit and for the Respiratory Care Department.

Research interests are maintained in such areas as anesthesia-related technology, neuro-transmitters and CNS function, respiratory physiology, cardiac anesthesia, and ischemia-reperfusion injury.

### **SPECIAL SERVICES**

Consultation in all areas of anesthesia and critical care; chronic pain management through the Anesthesiology Pain Management Center; acute pain management through the Acute Pain Service; preoperative consultations through the Preoperative Evaluation Clinic located in PreCare, consultation in the areas of anesthesia-related technology, quality assurance and risk management.

### **HOW TO REACH US**

**PHONE** (academic offices): (919) 966-5136

**FAX:** (919) 966-4873

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### **MAILING ADDRESS**

UNC Anesthesiology Department

CB #7010

N2201 North Wing UNC Hospitals

Chapel Hill, NC 27599-7010

### **CHAIR**

David A. Zvara, M.D., F.A.H.A.

**Jay A. Anderson, MD**

Associate Professor

**Work Phone:** 919-966-5136



**Harendra Arora, MBBS**

Associate Professor

**Work Phone:** 919-966-5136



**Procedures/Research:**

Cardiothoracic, liver transplantation and vascular anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (2001)

**Certifications:**

Anesthesiology - *Board Certified* (1989)

**Medical School:** University of Minnesota, 1973, Dental School

**Residency:** UCLA, 1978-1980, Dental Anesthesiology

**Medical School:** University of North Carolina, Chapel Hill, NC, 1984

**Ann G. Bailey, MD**

Professor

**Work Phone:** 919-966-5136



**J. Greg Balfanz, MD**

Assistant Professor

**Work Phone:** 919-966-5136



**Procedures/Research:**

Pediatric anesthesia.

**Medical School:** University of North Carolina, 2010

**Certifications:**

Anesthesiology - *Board Certified* (1986)

Pediatrics - *Board Certified* (1985)

**Medical School:** Southern Illinois University, Springfield, IL, 1980

**Internship:** UNC Hospitals, 1980-1981, Pediatrics

**Residency:** UNC Hospitals, 1981-1983, Pediatrics

UNC Hospitals, 1983-1985, Anesthesiology

**David E. Ballard, MD**

Associate Professor

**Work Phone:** 919-966-5136



**Brian P. Barrick, MD, DDS**

Assistant Professor

**Work Phone:** 919-966-5136



**Procedures/Research:**

Cardiothoracic and regional anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (2006)

**Certifications:**

Anesthesiology - *Board Certified* (1980)

**Medical School:** University of New Mexico, Albuquerque, NM, 1975

**Residency:** UNC Hospitals, 1975-1978, Anesthesiology

**Medical School:** University of North Carolina, Chapel Hill, NC, 1998

Vanderbilt University, Nashville, TN, 2001

**Residency:** UNC Hospitals, 2002-2005, Anesthesiology

**Internship:** Vanderbilt University, 2001-2002, General Surgery

**Residency:** Vanderbilt University, 1998-2001, Oral Surgery

**Jeffrey M. Berman, MD**

Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Anesthesia for pediatric burn patients.

**Certifications:**

Anesthesiology - *Board Certified* (1997)

**Medical School:** University of Barcelona, Spain, 1978

**Internship:** University Hospital of Jacksonville, 1978-1979, Surgery

**Residency:** University Hospital of Jacksonville, 1979-1980, Surgery

Naval Hospital, 1982-1984, Anesthesiology

**Fellowship:** Children's Hospital National Medical Center, 1984-

1985, Pediatric Anesthesiology

Naval Hospital, 1985-1986, Clinical Anesthesiology



**Jenna E. Black, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric anesthesia and medical student teaching.

**Certifications:**

Anesthesiology - *Board Certified* (2005)

**Medical School:** University of Cincinnati, Cincinnati, Ohio, 2000

**Residency:** UNC Hospitals, 2000-2004, Anesthesiology



**William S. Blau, MD, PhD**

Professor

**Clinical Appointment Phone:** 919-843-6688

**Work Phone:** 919-966-3372

**Procedures/Research:**

Management of chronic cancer and acute pain; chronic back pain.

**Certifications:**

Anesthesiology - *Board Certified* (1992)

**Medical School:** Cornell University, New York, NY, 1978

University of North Carolina, Chapel Hill, NC, 1987

**Residency:** UNC Hospitals, 1987-1991, Anesthesiology

**Fellowship:** UNC Hospitals, 1991-1991, Chronic Pain



**Richard L. Boertz-Marx, MD**

Associate Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pain management and anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (2001)

**Medical School:** Wayne State University, 1991



**Andrey V. Bortsov, MD, PhD**

Assistant Professor

**Medical School:** Pavlov State Medical University, 1993

Certified Public Health Specialist, 2001

**Post-Doctoral:** University of South Carolina, 2006



**Jenny M. Boyd, MD**

Assistant Professor

**Division of Critical Care Medicine**

**Procedures/Research:**

Anesthesiology and pediatric critical care.

**Certifications:**

Pediatric Critical Care - *Board Eligible*

**Medical School:** University of Tennessee, 1999



**Philip G. Boysen, MD, MBA**

Executive Associate Dean for Graduate Medical Education,  
Professor



**Work Phone:** 919-966-1586

**Procedures/Research:**

Post-graduate medical education, critical care, and pulmonary medicine.

**Certifications:**

Anesthesiology - *Board Certified* (1987)  
Critical Care Medicine - *Board Certified* (1987)  
Internal Medicine - *Board Certified* (1977)

**Medical School:** Loyola-Stritch School of Medicine, Chicago, IL, 1969

**Internship:** Michael Reese Medical Center, 1969-1970, Medicine

**Residency:** University of Florida, Pensacola Educational Program, 1974-1976, Internal Medicine

**Fellowship:** University of Florida College of Medicine, 1974-1976, Pulmonary Medicine

**Residency:** University of Florida College of Medicine, 1982-1984, Anesthesiology

**Ty L. Bullard, MD**

Assistant Professor



**Work Phone:** 919-966-5136

**Certifications:**

Anesthesiology - *Board Certified* (2007)

**Medical School:** University of Texas Southwestern Medical School, Dallas, TX, 1998-2002

**Internship:** Baylor University Medical Center, 2002-2002  
Parkland Memorial Hospital, 2003-2003

**Residency:** University of Texas Southwestern Medical Center, 2003-2006, Anesthesiology

**Katherine C. Clement, MD**

Assistant Professor of Anesthesiology and Pediatrics

Division of Critical Care Medicine



**Procedures/Research:**

Anesthesiology and pediatric critical care.

**Certifications:**

American Board of Pediatrics - *Board Certified* (2007)  
Pediatric Critical Care - *Board Certified* (2010)

**Doctoral:** Eastern Virginia Medical School, 2000-2004

**Residency:** University of Virginia Health System, 2004-2007, Pediatrics

**Fellowship:** University of Arkansas for Medical Sciences, 2007-2010, Pediatric Critical Care Medicine

**Paul M. Collins, Jr., DO**

Associate Professor



**Work Phone:** 919-966-5136

**Procedures/Research:**

Anesthesia for ambulatory surgery and regional anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (1989)

**Medical School:** Chicago College of Osteopathic Medicine, Chicago, IL, 1983

**Residency:** Illinois Masonic Medical Center, 1983-1986, Anesthesiology

**Randall F. Coombs, MD**

Associate Professor



**Work Phone:** 919-966-5136

**Procedures/Research:**

Regional anesthesia and difficult airway management.

**Certifications:**

Anesthesiology - *Board Certified* (1977)

**Medical School:** University of Southern California, Los Angeles, CA, 1972

**Internship:** Orange County Medical Center, 1972-1973, Surgery

**Residency:** University of Southern California, 1973-1975, Anesthesiology

**Barbara Dodson**

Associate Chair for Administration



**Work Phone:** 919-966-6182

**LeKisha Y. Edwards, PhD**

Assistant Professor



**Masters:** Pennsylvania State University, 1999-2002

**Cam E. Enarson, MD, MBA**

Professor



**Procedures/Research:**  
Clinical Evaluative Scholars Program.

**Medical School:** University of Alberta, 1978  
**MBA:** The Wharton School, 1988

**Linda S. Georges, MD**

Professor



**Work Phone:** 919-966-5136

**Procedures/Research:**  
Pediatric and ambulatory anesthesia.

**Certifications:**  
Anesthesiology - *Board Certified* (1981)

**Medical School:** Medical College of Georgia, Augusta, GA, 1976  
**Internship:** Medical College of Georgia, 1976-1977, Surgery  
**Residency:** Medical College of Georgia, 1977-1979, Anesthesiology  
**Fellowship:** Primary Children's Medical Center, 1979-1979, Pediatric Anesthesia  
University of Utah Medical Center, 1979-1980, Anesthesiology  
Children's Hospital of Philadelphia, 1983-1983, Anesthesia and Critical Care

**Amy M. Goetzinger, PhD**

Assistant Professor



**Work Phone:** 919-966-5136

**Procedures/Research:**  
Pain psychologist.

**Medical School:** University of Missouri, 2008

**Cherissa C. Hanson, MD**

Assistant Professor

Division of Critical Care Medicine



**Work Phone:** 919-966-7495

**Procedures/Research:**  
Anesthesiology and pediatric critical care.

**Certifications:**  
Pediatrics - *Board Certified* (2006)  
Critical Care Medicine - *Board Eligible* (2007)

**Medical School:** University of Texas, Galveston, Texas, 2001

**H. David Hardman, MD**

Associate Professor



**Work Phone:** 919-966-5136

**Procedures/Research:**  
Regional anesthesia and acute pain management.

**Medical School:** University of Minnesota, 1976

**Robert S. Isaak, DO**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

General/transplant anesthesia.



**Medical School:** Nova Southeastern University, 2007

**Louie A. G. Jain, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

General anesthesia.



**Medical School:** University of Minnesota, 2006

**Dominika L. James, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pain management.



**Medical School:** Medical College of Georgia, 2001

**Umesh C. Joashi, MD**

Associate Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric critical care medicine.



**Medical School:** King's College, London, 1988

**Benny L. Joyner, Jr., MD, MPH**

Assistant Professor

**Division of Critical Care Medicine**

**Work Phone:** 919-966-7495

**Procedures/Research:**

Airway inflammation in pediatric patients suffering from inhalation injury.



**Medical School:** University of North Carolina, 1997-2002

**Graduate School:** University of North Carolina, 2000-2002

**Residency and Chief Resident:** Albert Einstein College of Medicine, 2002-2006, Pediatrics

**Fellowship:** University of North Carolina at Chapel Hill, 2006-2009, Pediatric Critical Care Medicine

**Myungsa Kang, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Certifications:**

Anesthesiology - Board Certified (2008)

**Medical School:** Albany Medical College, Albany, NY, 1998-2002

**Internship:** Georgetown University Medical Center, 2002-2003, General Surgery

**Residency:** SUNY Stony Brook University Hospitals, 2004-2007, Anesthesiology



**Sharon T. Kapeluk, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Regional and ambulatory anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (1997)

**Medical School:** University of North Carolina, Chapel Hill, NC, 1991

**Residency:** UNC Hospitals, 1991-1995, Anesthesiology



**Keith C. Kocis, MD, MS**

Professor

**Division of Critical Care Medicine**

**Work Phone:** 919-966-7495

**Procedures/Research:**

Pediatric cardiac intensive care, real time role of mortality, international health (Ugandan Pediatric Cardiology and Surgery Program).

**Certifications:**

Pediatric Critical Care - *Board Certified* (1996)

Pediatric Cardiology - *Board Certified* (1994)

Pediatrics - *Board Certified* (1990)

**Fellowship:** John Hopkins Medical Institutions, 1996

**Graduate School:** University of Michigan Medical Center, Ann Arbor, MI, 1993

**Residency:** Children's National Medical Center, 1990

**Medical School:** State University of New York, Syracuse, New York, 1987



**Vincent J. Kopp, MD**

Associate Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric anesthesia, quality improvement, and medical ethics.

**Certifications:**

Anesthesiology - *Board Certified* (1994)

**Medical School:** University of North Carolina, Chapel Hill, NC, 1978-1982

**Internship:** UNC Hospitals, 1982-1983, Anesthesiology

**Residency:** Duke University Medical Center, 1983-1985, Pediatrics

UNC Hospitals, 1990-1992, Anesthesiology



**Priya A. Kumar, MBBS**

Associate Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Cardiothoracic anesthesia.

**Medical School:** University of Delhi, Lady Hardinge Medical College, 1989



**Robert W. Kyle, DO**

Associate Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Cardiothoracic anesthesia, transesophageal echocardiography (TEE), and general anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (2002)

**Medical School:** University of New England College of Osteopathic Medicine, Biddeford, ME, 1997

**Internship:** St. Vincent Hospital, 1997-1998, Internal Medicine

**Residency:** Baystate Medical Center, 1998-2001, Anesthesiology

**Fellowship:** Brigham and Women's Hospital, 2001-2002, Cardiac Anesthesia



**Warner J. Lucas, MD, DDS**

Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Cardiothoracic anesthesia, transesophageal echocardiography (TEE), and general anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (1988)

Oral and Maxillofacial Surgery - *Board Certified* (1979)

**Medical School:** University of North Carolina, Chapel Hill, NC, 1973

University of Florida, Gainesville, FL, 1983

**Internship:** U.S. Public Health Service, 1973-1974, General Practice Dental Residency

**Residency:** North Carolina Memorial Hospital, 1974-1977, Oral and Maxillofacial Surgery

**Fellowship:** University of North Carolina at Chapel Hill, 1977-1978, Oral and Maxillofacial Research

**Internship:** UNC Hospitals, 1983-1984, Continuum Medicine/Pediatrics

**Residency:** UNC Hospitals, 1983-1986, Anesthesiology



**M. Concetta Lupa, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric anesthesia, pediatric pain management.

**Certifications:**

Anesthesiology - Board Certified (2008)

**Medical School:** West Virginia University, Morgantown, WV, 1999-2003

**Internship:** UNC Hospitals, 2003-2004

**Residency:** UNC Hospitals, 2003-2007, Anesthesiology

**Fellowship:** University of Pittsburgh Children's Hospital, 2007-2008, Pediatric Anesthesia



**Susan M. Martinelli, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Certifications:**

Anesthesiology - Board Certified (2008)

**Medical School:** University of Wisconsin School of Medicine, Madison, WI, 1999-2003

**Residency:** UNC Hospitals, 2003-2007, Anesthesiology

**Fellowship:** Duke University, 2007-2008, Cardiothoracic Anesthesia



**David C. Mayer, MD**

Vice Chair, Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Obstetric anesthesia.

**Certifications:**

Anesthesiology - Board Certified (1991)

**Medical School:** Tulane University, New Orleans, LA, 1986

**Residency:** University of Texas Health Science Center, 1987-1990, Anesthesiology

**Fellowship:** McGill University, Royal Victoria Hospital, 1990-1991, Obstetric Anesthesia



**Lena M. Mayes**

Assistant Professor

**Work Phone:** (919) 966-5136

**Procedures/Research:**

Pediatric anesthesia.

**Certifications:**

Anesthesiology - Board Certified (2007)

**Fellowship:** Children's Hospital of Pittsburgh, 2010-2011, Pediatric Anesthesia

**Residency:** University of Rochester Medical Center, 2003-2006, Anesthesiology

**Internship:** Johns Hopkins University/Sinai Hospital, 2002-2003, Internal Medicine

**Doctor of Medicine (MB BChir):** University of Rochester School of Medicine & Dentistry, 1998-2002



**Claude McFarlane, MD**

Associate Professor

**Work Phone:** 919-966-4353

**Procedures/Research:**

Research, neuroanesthesia.

**Certifications:**

Anesthesiology - Board Certified (1994)

**Medical School:** University of North Carolina, Chapel Hill, NC, 1983

**Internship:** Brown University, 1983-1984, Internal Medicine

**Residency:** Brown University, 1984-1985, Internal Medicine

Yale-New Haven Hospital, 1985-1988, Anesthesiology

Yale-New Haven Hospital, 1988-1989, Obstetric & Acute Pain Anesthesia

**Fellowship:** University of Iowa College of Medicine, 1991-1992, Anesthesia Research



**Janey P. McGee, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric anesthesia.

**Certifications:**

Anesthesiology - Board Certified (2008)

**Medical School:** University of North Carolina, Chapel Hill, NC, 1997-2001

**Residency:** University of Washington Children's Hospital & Regional Medical Center, 2001-2004, Pediatrics

UNC Hospitals, 2004-2007, Anesthesiology



**Sam A. McLean, MD, MPH**

Vice Chair, Research; Assistant Professor

**Work Phone:** 919-843-5931

**Procedures/Research:**

Emergency medicine.

**Medical School:** University of Michigan, 1990



**Peggy P. McNaull, MD**

Assistant Professor

**Division of Critical Care Medicine**

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric anesthesia and pediatric intensive care.

**Certifications:**

Anesthesiology - *Board Certified* (2008)

**Medical School:** Louisiana State University, Louisiana, 1999-2003

**Residency:** UNC Hospitals, 2003-2007, Anesthesiology

**Fellowship:** UNC Hospitals, 2007-2008, Pediatric Anesthesia

Texas Children's Hospital, 2008-2009, Pediatric Cardiac Anesthesia



**Monika Nanda, MBBS, MPH**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Regional anesthesia, acute pain, ambulatory anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (2007)

**Medical School:** SS Medical College, Rewa, India, 1999

**Internship:** University of Iowa, 2002-2003, Anesthesiology

**Residency:** University of Iowa, 2003-2006, Anesthesiology



**Anthony N. Passannante, MD**

Vice Chair, Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Anesthesia for liver transplantation and vascular anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (1992)

Internal Medicine - *Board Certified* (1988)

**Medical School:** State University of New York, Syracuse, NY, 1985

**Residency:** UNC Hospitals, 1985-1988, Internal Medicine

UNC Hospitals, 1989-1991, Anesthesiology

**Fellowship:** University of California, 1991-1991, Anesthesia Liver Transplant



**Afsaneh Pirzadeh, MD**

Assistant Professor of Anesthesiology and Pediatrics

**Division of Critical Care Medicine**

**Procedures/Research:**

Pediatric anesthesia.

**Medical School:** University of North Carolina, 2003



**Sara L. Pittenger, MD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric anesthesia.

**Medical School:** Northwestern University, 2001



**Ravindra V. Prasad, MD**

Associate Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Regional, vascular, and liver transplant anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (1998)

**Medical School:** University of Michigan, Ann Arbor, MI, 1993

**Internship:** Greenville Hospital Systems, 1993-1994, Transitional

**Residency:** UNC Hospitals, 1994-1997, Anesthesiology



**Karene J. Ricketts, MD**

Assistant Professor of Anesthesiology and Pediatrics

**Procedures/Research:**

Pediatric anesthesia.

**Medical School:** University of North Carolina, 2003



**Renee Rosiek, BSN, MSN, FNP**

Instructor

**Clinical Appointment Phone:** 919-966-2273

**Work Phone:** 919-966-6521

**Procedures/Research:**

Preoperative anesthesia consultation.

**Certifications:**

Family Nurse Practitioner - *Board Certified* (2002)

**Medical School:** West Virginia University, Morgantown, West Virginia, 1986

Duke University, Durham, North Carolina, 2002

**Residency:** Crissman Family Practice, 2002-2002, Family Medicine



**Kathleen A. Smith, MD**

Assistant Professor

**Procedures/Research:**

High risk obstetric anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (2008)

**Medical School:** University of Florida, 1999-2003

**Internship:** University of North Carolina at Chapel Hill, 2003-2004

**Residency:** UNC Hospitals, 2004-2007, Anesthesiology



**Fred J. Spielman, MD**

Vice Chair, Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Obstetric anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (1982)

**Medical School:** Medical College of Georgia, Augusta, GA, 1978

**Residency:** UNC Hospitals, 1978-1981, Anesthesiology

**Fellowship:** UNC Hospitals, 1981-1981, Critical Care Medicine  
Bowman Gray School of Medicine, 1982-1982, Obstetric Anesthesia



**Michael C. Tielborg, MD, MSc**

Assistant Professor

**Work Phone:** 919-966-5136

**Certifications:**

Anesthesiology - *Board Certified* (2003)

**Medical School:** Oregon Health Sciences University, 1994-1998

**Residency:** Providence St. Vincent Medical Center, 1998-1999

University of Utah, 1999-2002, Anesthesiology



**Palak B. Turakhia, MD, MPH**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pain management.

**Medical School:** Tulane University, 2006  
Tulane University, 2006



**Eileen P. Tyler, MD**

Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Anesthesia for ENT.

**Certifications:**

Anesthesiology - *Board Certified* (1984)

**Medical School:** Temple University, Philadelphia, PA, 1979  
**Residency:** UNC Hospitals, 1979-1980, Medicine & Pediatrics  
UNC Hospitals, 1980-1982, Anesthesiology



**Robert D. Valley, MD**

Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pediatric anesthesia, pediatric cardiac anesthesia, and pediatric acute pain management.

**Certifications:**

Anesthesiology - *Board Certified* (1987)  
Pediatrics - *Board Certified* (1985)

**Medical School:** University of Virginia, Charlottesville, VA, 1980  
**Internship:** UNC Hospitals, 1980-1981, Pediatrics  
**Residency:** UNC Hospitals, 1981-1983, Pediatrics  
UNC Hospitals, 1984-1986, Anesthesiology  
**Fellowship:** Hospital for Sick Children, 1986-1987, Pediatric Intensive Care and Pediatric Anesthesia



**Nancy C. Wilkes, MD**

Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

Anesthesia for ambulatory surgery and general clinical anesthesia.

**Certifications:**

Anesthesiology - *Board Certified* (1994)

**Medical School:** University of Tennessee, Memphis, TN, 1987  
**Internship:** University of Tennessee, 1987-1988, Transitional  
**Residency:** UNC Hospitals, 1988-1991, Anesthesiology



**James H. Williams, MD, PhD**

Assistant Professor

**Work Phone:** 919-966-5136

**Procedures/Research:**

General anesthesia.

**Medical School:** University of California at San Diego, 2000  
University of California at San Diego, 2000



**Tina M. Schade Willis, MD**

Assistant Professor

**Division of Critical Care Medicine**

**Work Phone:** 919-966-7495

**Procedures/Research:**

Extracorporeal Life Support (ECLS), quality improvement, team training, and patient safety.

**Certifications:**

Pediatrics - *Board Certified* (2000)  
Pediatric Critical Care - *Board Certified* (2004)

**Fellowship:** University of Texas Southwestern Medical Center, 2003-2004, Pediatric Critical Care  
**Residency:** Creighton-Nebraska Universities Foundation, 1997-2000, Pediatrics  
**Medical School:** University of Nebraska, Lincoln, NE, 1997



**Manoj Bobby Wunnava, MD**

*Assistant Professor*

**Work Phone:** 919-966-5136

**Procedures/Research:**

Pain medicine.



**Medical School:** George Washington University, 1999

**Zhelong Xu, MD, PhD**

*Assistant Professor*

**Procedures/Research:**

Research.



**Medical School:** North China Coal Medical College, 1988

**Post-Doctoral:** Yamagata University, 1998

**David A. Zvara, MD, FAHA**

*Chair, Professor*

**Work Phone:** 919-966-5136

**Procedures/Research:**

Cardiothoracic anesthesia.



**Certifications:**

Anesthesiology - *Board Certified* (1990)

**Medical School:** Ohio State University, Columbus, OH, 1981-1985

**Internship:** Ohio State University, 1985-1986, Anesthesiology

**Residency:** Ohio State University, 1986-1987, Anesthesiology

**Residency and Chief Resident:** Ohio State University, 1987-1989, Anesthesiology

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