Mary Culver
Department of Surgery

Formal instruction in surgery begins during the third year, with the required 12-week Integrated Surgical Disciplines Clerkship. During this surgical clerkship, students are assigned to clinical rotations, mostly within the Department of Surgery, with some exposure to other surgical-related disciplines outside of the department. The clerkship gives students opportunities to participate in the care of surgical patients (both inpatient and outpatient); to spend time in the operating rooms; and to attend seminars, teaching conferences and didactic sessions on a regular basis. During the fourth year, students may select sub-internship electives within the Division of General Surgery, which include a variety of general surgical specialties. In addition to the general surgery sub-internships, electives are available in several other surgical subspecialties (e.g., pediatric surgery, transplant surgery, vascular surgery, cardiovascular and thoracic surgery, urologic surgery, plastic and reconstructive surgery).

Website: http://www.surgery.wustl.edu

Faculty

Clerkship Director
Bethany Sacks, MD

Assistant Clerkship Director
Sara Holden, MD (https://surgery.wustl.edu/people/sara-holden-md/)
Visit our website for more information about our faculty (http://www.surgery.wustl.edu/Faculty/) and their appointments.

A

Aaron Michael Abarbanell, MD, MS
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD University of Michigan 2005
BA Cornell University 1993
MS Indiana University Indianapolis 2010

Rebecca L. Alt, MD, PHD
Professor of Surgery (General Surgery) (primary appointment)
MD Washington Univ in St. Louis 1992
BS Univ of Wisconsin Madison 1978
PHD Univ of Wisconsin Madison 1983

Dorothy A Andriole, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
Assistant Dean for Student Affairs and Medical Education
BA New York University 1976
MD New York University 1980

Gerald L Andriole, MD
Robert Killian Royce, M.D. Distinguished Professor of Urologic Surgery (primary appointment)
BS Pennsylvania State University 1976
MD Jefferson Medical College 1978

Rachel Alexandria Anolik, MD
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BS Pennsylvania State University 2008
MD University of Rochester 2013

Sunil Madhukar Apte, MBBS
Assistant Professor of Surgery (Urologic Surgery) (Pending Executive Faculty Approval) (primary appointment)
MBBS Bombay University 1970

Christopher Thomas Arett, MD
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
MD Washington Univ in St. Louis 2003
BS Washington Univ in St. Louis 1999

Bracken Abram Armstrong
Assistant Adjunct Professor of Surgery (General Surgery) (primary appointment)

Kenneth J Arnold, MD
Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)
MD Washington Univ in St. Louis 1968
BA University of Notre Dame 1964

Michael Magdi Awad, PHD, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
PHD Brown University 2001
BS Brown University 1994
MD Brown University 2001

B

Jeffrey Allen Bailey, M PA, MD
Professor of Surgery (General Surgery) (primary appointment)
M PA Golden Gate University 1986
MD Saint Louis University 1996

Kenneth J Bennett, MD
Associate Professor of Clinical Surgery (General Surgery) (primary appointment)
MD Tulane University 1965

Sam B Bhayani, MD
Professor of Surgery (Urologic Surgery) (primary appointment)
MD Washington Univ in St. Louis 1996
BS Cornell University 1992

Lawrence J Billy, MD
Instructor in Clinical Surgery (General Surgery) (primary appointment)
MD Saint Louis University 1966
BA Youngstown St University 1962

Jeffrey Alan Blatnik, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
MD Case Western Reserve Univ 2007
BA Miami University 2003

Grant Bochicchio, MD, M PH
Harry Edison Professor of Surgery (primary appointment)
MD Pennsylvania State University 1993
M PH University of Pittsburgh 1989

Keith E Brandt, MD
William G. Hamm Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
MD Univ Texas Health Science Ctr 1983
BS Texas A&M University 1979

Anoop k Brar, PHD
Instructor in Surgery (Cardiothoracic Surgery) (Pending Dean's Approval) (primary appointment)
BS University of Edinburgh 1979
PHD University of Edinburgh 1983

Taylor Clarke Brown, MHS, MD
Assistant Professor of Surgery (General Surg) (primary appointment)
MHS Yale University 2018
BS Rhodes College 2007
MD University of Louisville 2011

L. Michael Brunt, MD
Professor of Surgery (General Surgery) (primary appointment)
BA University of Mississippi 1976
MD Johns Hopkins University Medic 1980

Sara Anne Buckman, MD, PHARMD
Assistant Professor of Surgery (General Surgery) (primary appointment)
MD Univ of Wisconsin Madison 2008
PHARMD Univ of Wisconsin Madison 1999

John B Buettner, MD
Instructor in Clinical Surgery (General Surgery) (primary appointment)
MD Washington Univ in St. Louis 1967
BA Dartmouth College 1963

Arnold D Bullock, MD
Professor of Surgery (Urologic Surgery) (primary appointment)
Alan A and Edith L Wolff Distinguished Professor
MD Johns Hopkins University 1987
BS Xavier University Louisiana 1983

Yin Cao, PHS, M PH
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
Assistant Professor of Medicine
PHS Harvard University 2013
M PH Columbia University 2009

David Anthony Caplin, MD
Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BA Kenyon College 1971
MD University of Cincinnati 1975

Su-Hsin Chang, PHD, MA
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
PHD Johns Hopkins University 2010
BA National Chengchi University 1995
MA Mass Inst of Technology (MIT) 2004

Will C Chapman, MD
Eugene M. Bricker Professor of Surgery (General Surgery) (primary appointment)
MD University of South Carolina 1984
BA University of North Carolina 1980

John E. Codd, MD
Professor of Clinical Surgery (Cardiothoracic Surgery) (primary appointment)
MD Saint Louis University 1963
BA Gonzaga University 1954

Graham A Colditz, M PH, DRPH, MBBS
Niess-Gain Professor of Surgery (General Surgery) (primary appointment)
Deputy Director for the Institute of Public Health
Professor of Medicine
BS University of Queensland 1977
M PH Harvard University 1982
DRPH Harvard University 1986
MBBS University of Queensland 1979

H. Groves Cooke III, DDENT, MS
Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)
DDENT Washington Univ in St. Louis 1971
BA De Paul University 1967
MS George Washington University 1975

Douglas E Coplen, MD
Associate Professor of Surgery (Urologic Surgery) (primary appointment)
BA Wabash College 1981
MD Indiana University Bloomington 1985

James L Cox, MD, UNKNOWN, MD1
Evarts A. Graham Professor Emeritus of Surgery (Cardiothoracic Surgery) (primary appointment)
BS University of Mississippi 1964
MD University of Tennessee 1967
UNKNOWN Duke University 1978
MD1 University of Tennessee 1967

Michael Crittenden, MD, BS1
Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD Georgetown University 1979
BS1 University of Notre Dame 1974

Kelly Bettina Currie, MD
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (Pending Executive Faculty Approval) (primary appointment)
MD State Univ of NY Buffalo 2008
BS State Univ of NY Buffalo 2004

Amy Cyr, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BA Creighton University 1997
MD Univ of Nebraska Med Center 2002

Ralph James Damiano Jr, MD
Evarts Ambrose Graham Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
BA Dartmouth College 1976
MD Duke University 1980

Kia L Davis, MPH, AB, PHS
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
MPH Saint Louis University 2007
AB Washington Univ in St. Louis 2018
PHS Harvard University 2015

Alana C Desai, MD
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
BS Marquette University 1997
MD Georgetown University 2002

Patrick A Dillon, MD
Associate Professor of Surgery (Pediatric Surgery) (primary appointment)
Associate Professor of Pediatrics
MD Georgetown University 1988
BA Brown University 1983

Francesca Maria Dimou, MD, MS
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS Stetson University 2006
MD University of South Florida 2011

MS University of Texas Galveston 2015
Maria Bernadette Majella Doyle, MD
Professor of Surgery (General Surgery) (primary appointment)
BS Trinity College Dublin 1990
MD Trinity College Dublin 1996

Bettina Drake, M PH, PHD
Professor of Surgery (Public Health Sciences) (primary appointment)
M PH Univ Texas Health Science Ctr 2003
BS Baylor University 2001
PHD University of South Carolina 2006

Kefu Du, MD
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
BS Duke University 2007
MD University of Tennessee 2011

Joseph W Eades, MD
Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BA Amherst College 1956
MD Washington Univ in St. Louis 1960

J. Chris Eagon, MD, MS
Associate Professor of Surgery (General Surgery) (primary appointment)
BA Williams College 1984
MD Harvard University 1988
MS University of Utah 1997

Timothy J Eberlein, MA, MD
Bixby Professor of Surgery (General Surgery) (primary appointment)
Head of the Department of Surgery
Professor of Pathology and Immunology
Senior Associate Dean for Cancer Programs
Spencer T. and Ann W. Olin Distinguished Professor
MA Harvard University 1996
BS University of Pittsburgh 1973
MD University of Pittsburgh 1977

Shaina Rose Eckhouse, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
MD Univ Texas Health Sci San Anto 2008

Pirooz Eghtesady, D SC, MD, MS
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
Professor of Pediatrics
D SC University of CA Los Angeles 1993
MD University of CA Los Angeles 1993
MS University of CA Los Angeles 1987
BS University of CA Los Angeles 1987
Zachary P Englert, DOST
Adjunct Assistant Professor of Surgery (primary appointment)
BS Pennsylvania State University 2005
DOST Phil Coll of Osteopathic Med 2009

Sean Jason English, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
Assistant Professor of Radiology
BA College of Wooster 2000
MD University of Pennsylvania 2007

John Matthew Felder III, MD
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BA University of Oregon 2004
MD Baylor University 2009

Ryan Courtney Fields, MD
Professor of Surgery (General Surgery) (primary appointment)
BS Davenport University 1998
MD Duke University 2003

Robert S Figenschau, MD
Taylor Family and Ralph V. Claman, M.D. Professor of Surgery (Urologic Surgery) (primary appointment)
BS Macalester College 1981
MD University of Minnesota 1987

Gerald Richard Fortuna Jr
Adjunct Associate Professor of Surgery (primary appointment)
Adjunct Associate Professor of Radiology

Ida K Fox, MD
Associate Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BS Haverford College 1994
MD University of Rochester 1999

Jason Kenneth Frankel, MD
Assistant Professor of Surgery (Urological Surgery) (primary appointment)
BS University of Washington 2009
MD Albany Medical College 2013

Bradley D. Freeman, MD
Professor of Surgery (General Surgery) (primary appointment)
MD Duke University 1988
BS University of Central Florida 1984

Feng Gao, PHD
Associate Professor of Surgery (Public Health Science) (primary appointment)
Associate Professor of Biostatistics
Associate Professor of Medicine
PHD Emory University 2003

Andrew E. Gelman, PHD
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
Professor of Pathology and Immunology
PHD University of Pennsylvania 2006
BS University of CA Los Angeles 1996

Patrick J Geraghty, MD
Professor of Surgery (General Surgery) (primary appointment)
BS Northwestern University 1989
MD Northwestern University 1991

William Ewald Gillanders, MS1, BA1, MD, MS
Professor of Surgery (General Surgery) (primary appointment)
Vice Chair for Research, Department of Surgery
MS1 Medical University of Sth Car 2006
BA Williams College 1987
BA1 Williams College 1987
MD Duke University 1991
MS Medical Univ South Carolina 2006

Sean C. Glasgow, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
MD Duke University 1999
BS Duke University 1995

Katherine LuBell Glover-Collins, PHD, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
PHD Meharry Med College 2009
MD Meharry Med College 2009
BS Xavier University Lousiana 2001

Simon P Goedegebuure, MA, PHD
Associate Professor of Surgery (General Surgery) (primary appointment)
MA School Not Listed 1985
BS School Not Listed 1982
PHD Erasmus University Rotterdam 1989

Jun Guo, MS, PHD
Associate Professor of Surgery (Pediatric Surgery) (primary appointment)
MS Dalian Medical University 1997
BS Nanjing University 1991
PHD Shanghai Medical University 2000

Steven William Guyton
Associate Professor of Clinical Surgery (Cardiothoracic Surgery) (primary appointment)

Bruce Lee Hall, MBA, PHD, MD
Professor of Surgery (General Surgery) (primary appointment)
Fellow in the Center for Health Policy
Professor of Health Care Management (Olin School of Business)
MBA Harvard University 2000
Jean Marie Hunleth, M PH, PHD
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
Instructor of Anthropology (Courtesy Affiliation)
M PH Northwestern University 2011
PHD Northwestern University 2011
BA Vanderbilt University 1998

Steven R Hunt, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
BA Dartmouth College 1992
MD Stanford University 1997

Chelsea Marie Hutchinson, MD
Adjunct Assistant Professor of Surgery (General Surgery) (primary appointment)
MD University of Virginia 2014

Mohsen Ibrahim, MD
Instructor in Surgery (Cardiothoracic Surgery) (primary appointment)
MD University of Rome 1999

Obeid Noor Ilahi, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
MD Aga Khan University 1992

Akinobu Itoh, MD, PHD
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD Tohoku University Sendai Miyag 1998
PHD Tohoku University Sendai Miyag 2010

Aimee S. James, M PH, MA, PHD
Professor of Surgery (General Surgery) (primary appointment)
M PH University of Texas Houston 2000
MA University of Houston 1998
PHD University of Houston 1999
BA Goucher College 1995

Shu Jiang, MS, PHD
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
MS University of Western Ontario 2016
BS Simon Fraser University 2015
PHD University of Waterloo 2018

Dane P Johnson, MD
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
BA University of Minnesota 2007
MD University of Minnesota 2011
Puja Kachroo, MD, MS  
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
MD Ross Univ School of Medicine 2007  
BS Boston University 2001  
MS Columbia University 2003  

Demetrios Katsikas, MD  
Instructor in Clinical Surgery (Urological Surgery) (primary appointment)  
BS University of Michigan 1985  
MD Wayne State University 1989  

Martin S Keller, MD  
Associate Professor of Surgery (Pediatric Surgery) (primary appointment)  
Associate Professor of Pediatrics  
BS University of Pennsylvania 1985  
MD University of Vermont 1990  

Amy Frances Kells, PhD, MD  
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
PHD Vanderbilt University 1992  
BS Vanderbilt University 1984  
MD Vanderbilt University 1993  

Adeel Khan, MD  
Associate Professor of Surgery (General Surgery) (primary appointment)  
BS Bahria University 1997  
MD Aga Khan University 2002  

Shumaila Nooruddin Khawja, MD, BBA  
Instructor in Surgery (General Surgery) (Pending Dean's Approval) (primary appointment)  
MD Baylor College of Medicine 2010  
BBA University of Texas Houston 2010  

Vipul Khetarpaul, MD  
Assistant Professor of Surgery (General Surgery) (primary appointment)  
Assistant Professor of Radiology  
MD Karnataka Medical College 2007  

Andrew M Kim, DDENT, MS  
Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
Instructor in Clinical Otolaryngology  
BA California State University 1978  
DDENT Washington Univ in St. Louis 1984  
MS Ohio State University 1987  

Eric Hwan Kim, MD  
Assistant Professor of Surgery (Urological Surgery) (primary appointment)  
MD Washington Univ in St. Louis 2012  

Jae Sung Kim, BS1, PHD, MA  
Professor of Surgery (General Surgery) (primary appointment)  
Professor of Cell Biology and Physiology  
BS1 Seoul National University 1988  
PHD University of Wisconsin 1999  
MA Seoul National University 1990  

John P. Kirby, MS, MD  
Associate Professor of Surgery (General Surgery) (primary appointment)  
BS University of Illinois 1988  
MS University of Illinois 1999  
MD University of Illinois 1993  

Saul Klein, MD  
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)  
MD Syracuse University 1959  

Mary E Klingensmith, MD  
Professor of Surgery (General Surgery) (primary appointment)  
Mary Culver Distinguished Professor  
Vice Chairman for Education, Department of Surgery  
MD Duke University 1992  
BA Wellesley College 1988  

Piroska K Kopar, MD  
Assistant Professor of Surgery (General Surgery) (primary appointment)  
MD Emory University 2007  
BA St Johns College 1999  

Kunal Deepak Kotkar, MD  
Instructor in Surgery (Cardiothorasic Surgery) (primary appointment)  
MD Grant Medical College 2004  

Benjamin D. Kozower, MD  
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
MD University of Rochester 1997  
BS University of Rochester 1993  

Jessica Kramer, MD  
Assistant Professor of Surgery (General Surgery) (primary appointment)  
MD St. George’s University 2009  
BA Emory University 2001  

Daniel Kreisel, MD, PHD  
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
G Alexander Patterson MD and Mid America Transplant  
Endowed Distinguished Chair in Lung Transplantation  
Professor of Pathology and Immunology  
MD Mount Sinai School of Medicine 1995  
PHD University of Pennsylvania 2002
L

Ling Hung H Lai, MD
Professor of Surgery (Urologic Surgery) (primary appointment)
Professor of Anesthesiology
MD Cornell University 1999
BS Rice University 1994

Seung Hee Lee, MD
Instructor in Surgery (General Surgery) (Pending Dean's Approval) (primary appointment)
MD University of Pittsburgh 2013
BA Columbia University 2001

Jennifer M Leonard, PHD, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BA Colorado College 1999
PHD Mayo Clinic 2011
MD Mayo Clinic 2011

Wenjun Li, MS, MD
Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MS Sun Yat-Sen University 2004
MD Guangdong Medical College 1991

Jerry Michael Liddell, DPM
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS University of Utah 1995
DPM Ohio College of Podiatric Medi 2002

Yiing Lin, MD, PHD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS Duke University 1997
MD Washington Univ in St. Louis 2005
PHD Washington Univ in St. Louis 2005

Erin Lynn Linnenbringer, BS1, MS1, PHD
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
BS1 Washington Univ in St. Louis 2000
MS1 Northwestern University 2003
PHD University of Michigan 2014

Ying Liu, MD, PHD
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
MD Southeast U Medical School 1995
PHD Texas Tech University 2006

Alan M Londe, MD
Instructor in Clinical Surgery (General Surgery) (primary appointment)
BA Washington Univ in St. Louis 1957
MD Washington Univ in St. Louis 1961

Esther Jiaxin Lu, PHD, MS
Associate Professor of Surgery (Public Health Sciences) (primary appointment)
Associate Professor of Biostatistics
PHD Medical College of Wisconsin 2007
BS Nankai University 1997
MS National Univ of Singapapre 2002

Mark A Ludwig, MD
Instructor in Clinical Surgery (General Surgery) (primary appointment)
MD University of Chicago 1976
BA Emory University 1972

Jingqin Luo, PHD, MS, MS1
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
Associate Professor of Biostatistics
Associate Professor of Medicine
PHD Duke University 2006
MS Renmin University of China 2001
MS1 Duke University 2003
BS Renmin University of China 1998

M

Susan E Mackinnon, MD
Minot Packer Fryer Professor of Plastic Surgery (primary appointment)
Professor of Occupational Therapy
Professor of Otolaryngology
BA Queens College 1971
MD Queen's University 1975

Kiran Mahajan, PHD, MS
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
PHD Indian Institute of Science 1998
MS Madurai Kamaraj University 1991

Nupam P Mahajan, PHD
Professor of Surgery (Urological Surgery) (primary appointment)
PHD Indian Institute Of Technology 1997

Arnab Majumder, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
MD Ohio State University 2011
BS Case Western Reserve Univ 2007

Hersh Maniar, MD
Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
Associate Professor of Medicine
BS University of Michigan 1994
MD University of Illinois 1998

Julie Ann Margenthaler, MD
Professor of Surgery (General Surgery) (primary appointment)
BA Boston University 1993
M. M. Masood, MD  
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
MD Dow Medical College Karachi 2001

John E. Mazuski, MD, PHD, MS  
Professor of Surgery (General Surgery) (primary appointment)  
MD University of CA Los Angeles 1981  
PHD University of Minnesota 1993  
BA California State Fresno 1973  
MS Univ of Wisconsin Madison 1975

Patricia A McGuire, MD  
Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
MD University of Missouri 1985

Spencer J Melby, MD  
Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
BS Brigham Young University 1997  
MD University of Utah 2002

Bryan F Meyers, MD  
Patrick and Joy Williamson Endowed Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
BA Yale University 1982  
MD University of Chicago 1986

Jerry R Meyers, MD  
Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)  
BA University of Texas Austin 1962  
MD Washington Univ in St. Louis 1966

Kevin Joseph Mitchell, MD  
Instructor in Clinical Surgery (General Surgery) (primary appointment)  
BS Howard University 1981  
MD Howard University 1985

Marc R Moon, MD  
John M Shoenberg Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
BS University of Michigan 1983  
MD Wayne State University 1988

Julian C Mosley, MD  
Instructor in Clinical Surgery (General Surgery) (primary appointment)  
BS Saint Louis University 2000  
MD Washington Univ in St. Louis 1972

Nabil A Munfakh, MD  
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
MD University of Michigan 1985

BS University of Michigan 1981

Gregory P Murphy, MD  
Assistant Professor of Surgery (Urological Surgery) (primary appointment)  
MD University of Massachusetts 2011  
BA Tufts University 2006

Matthew G Mutch, MD  
Professor of Surgery (General Surgery) (primary appointment)  
BA St Olaf College 1990  
MD Washington Univ in St. Louis 1994

Terence M. Myckatyn, MD  
Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
BS Univ of Northern British Colu 2003  
MD Univ of Northern British Colu 1997

Dilip Sri Nath, MD  
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
MD New York U. School of Medicine 1999  
BS University of CA Berkeley 1995

Ruben Nava, MD  
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
MD Univ of Armed Forces: Military 2000

Thoi Hieu Ngo, MD  
Instructor in Surgery (General Surgery) (Pending Dean's Approval) (primary appointment)  
MD New York Medical College 2014  
BS University of Maryland 2010

Dennis Nguyen, MD, MS  
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
BS University of CA Irvine 2005  
MD University of CA San Francisco 2011  
MS University of CA Berkeley 2009

Thomas E Niesen, MD  
Instructor in Clinical Surgery (General Surgery) (primary appointment)  
MD Tulane University 1979  
BS Tulane University 1975

Richard James Nissen, MS, DDENT  
Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
MS Washington Univ in St. Louis 1985  
BS Iowa State University 1979  
DDENT University of Iowa 1983

Charles Upshur Nottingham, MD
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
MD Virginia Comm University 2012
BS Wake Forest University 2006

Anthony Ian Nunez
Instructor in Clinical Surgery (Cardio Surgery) (primary appointment)

John Westley Ohman, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
Assistant Professor of Radiology
BS University of Texas Austin 2008
MD Univ Texas Health Science Ctr 2012

Kerri A Ohman, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS University of Michigan 2008
MD University of Michigan 2012

George A Oliver, MD
Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)
MD Washington Univ in St. Louis 1952
BA Washington Univ in St. Louis 1948

Tiffany Medlin Osborn, M PH, MD
Professor of Surgery (General Surgery) (primary appointment)
Professor of Emergency Medicine in Medicine
M PH London Hygiene & Tropical Med 2009
MD Univ Texas Health Sci San Anto 1997
BS University of Houston 1992

Twinkle Kumar Samudra Pandian, M PH, MD
Assistant Professor of Surgery (General Surg) (primary appointment)
M PH Johns Hopkins University 2010
MD Mayo Clinic 2011
BS University of Minnesota 2006

Sharad P Parikh, UNKNOWN
Instructor in Clinical Surgery (General Surgery) (primary appointment)
UNKNOWN University of Pune 1967

Yikyung Park, MS1, PHD
Associate Professor of Surgery (Public Health Sciences) (primary appointment)
BS EWH A Womans University 1994
MS1 EWH A Womans University 1996
PHD Harvard University 2005

Charles L Parks, MD

Instructor in Clinical Surgery (General Surgery) (primary appointment)
MD Washington Univ in St. Louis 1969
BS University of South Dakota 1967

Jeffrey Andrew Parres, MD
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)
MD University of Missouri 1987
BA Washington Univ in St. Louis 1983

Michael K Pasque, MD
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
Professor of Biomedical Engineering
Professor of Radiology
MD University of Oklahoma 1978

Kamlesh Babulal Patel, MD
Associate Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BS University of MO Kansas City 2000
MD University of Arizona 2005

G Alexander Patterson, MD
Joseph C Bancroft Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD Queen's University 1974

Enrique Pedro Perinetti, MD, PHD
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)
MD School Not Listed 1969
PHD School Not Listed 1975

Mitchell A Pet, MD
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
MD Washington Univ in St. Louis 2011

Mary Politi, M PHIL, PHD
Professor of Surgery (Public Health Sciences) (primary appointment)
M PHIL George Washington University 2004
PHD George Washington University 2006
BS Barnard College 2001

Varun Puri, MD, MS
Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD Washington Univ in St. Louis 2009
BS All-India Inst of Medical Sci 1998
MS Creighton University 2007

Amanda Christine Rabideau, MD
Instructor in Surgery (General Surgery) (Pending Dean's Approval) (primary appointment)
BS Southern Illinois U Carbondale 2009
MD Southern Illinois University 2014

Nishant Raj, BS1, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS1 St Johns University 2004
MD Ross Univ School of Medicine 2009

Ricardo Rao, MD
Instructor in Clinical Surgery (General Surgery) (primary appointment)
MD University of Missouri 1987
BA University of CA San Diego 1983

Shuddhadeb Ray, MD
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD KANSAS U SCHOOL OF MEDICINE 2011

Nanette Rahee Reed, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
Assistant Professor of Radiology
BS University of Notre Dame 2000
MD Baylor College of Medicine 2004

Frank O Richards, MD
Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)
MD Howard University 1947
BA Talladega College 1944

Shale M Rifkin, MD
Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)
MD Washington Univ in St. Louis 1948

Brian G Rubin, MD
Professor of Surgery (General Surgery) (primary appointment)
Professor of Radiology
MD University of Vermont 1984
BA Colgate University 1979

Bethany Cara Sacks, MD, MED
Associate Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)
MD Mount Sinai School of Medicine 1999
MED University of Houston 2010
BS Connecticut College 1995

Justin M Sacks, MBA, MD
Professor of Surgery (Plastic & Reconstructive Surgery) (primary appointment)
MBA Johns Hopkins University 2015
BS Cornell University 1993
MD Mount Sinai School of Medicine 1998

Jacqueline Mitsouko Saito, MD
Associate Professor of Surgery (Pediatric Surgery) (primary appointment)
MD Columbia University 1993
BS Harvard Radcliff 1989

Elizabeth Ann Salerno, PHD, M PH
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
BS Univ of IL -Urbana-Champaign 2012
PHD Univ of IL -Urbana-Champaign 2017
M PH Johns Hopkins University 2018

Luis A Sanchez, MD
Professor of Surgery (General Surgery) (primary appointment)
Gregorio A. Sicard Distinguished Professor
Professor of Radiology
BS Yale University 1983
MD Harvard University 1987

Kenneth Gordon Sands, DOST, BBA, MBA
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
DOST Lincoln Memorial University 2014
BBA Randolph Macon College 2009
MBA Lincoln Memorial University 2014

Dominic Sanford, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS Maryville University 2005
MD University of MO Columbia 2009

Donald C Sauer, MD
Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)
MD Washington Univ in St. Louis 1960
BA Washington Univ in St. Louis 1956

Douglas J Schuerer, MD
Professor of Surgery (General Surgery) (primary appointment)
MD University of Pittsburgh 1995
BS Allegheny College 1991

Maryls E Schuh, MD, BS1
Instructor in Clinical Surgery (General Surgery) (primary appointment)
BS University of North Dakota 1973
MD Washington Univ in St. Louis 1979
BS1 University of North Dakota 1977

Debra L Seoane, MD
Instructor in Clinical Surgery (General Surgery) (primary appointment)
MD University of Miami 1986

BaddrAhed Shakhsheer, MD
Assistant Professor of Surgery (Pediatric Surgery) (primary appointment)
MD Eastern Virginia Med School 2010
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree/Institution</th>
<th>Appointment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Culver</td>
<td>Bulletin 2020-21</td>
<td></td>
</tr>
<tr>
<td>Courtney Shands III, MD</td>
<td>BA University of Virginia 2005</td>
<td>Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Surendra Shenoy, MD, PHD</td>
<td>MD Vanderbilt University 1982</td>
<td>Professor of Surgery (General Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Michelle Ilana Silver, PHD, MS</td>
<td>BA Stanford University 1978</td>
<td>Assistant Professor of Surgery (Public Health Sciences) (primary appointment)</td>
</tr>
<tr>
<td>Matthew Leon Silviera, MS1, MD</td>
<td>BS Stanford University 2007</td>
<td>Assistant Professor of Surgery (General Surgery) (primary appointment)</td>
</tr>
<tr>
<td>David Siroospour, MD</td>
<td>BS Pennsylvania State University 2001</td>
<td>Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Arjun Sivaraman, MD</td>
<td>MD Madras Medical College 2005</td>
<td>Assistant Professor of Surgery (Urologic Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Radhika K Smith, MD</td>
<td>MD University of MO Kansas City 2010</td>
<td>Assistant Professor of Surgery (General Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Zachary Lee Smith, MD</td>
<td>MD University of MO Kansas City 2010</td>
<td>Assistant Professor of Surgery (Urologic Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Jason Andrew Snyder, MD</td>
<td>BS Kettering University 2004</td>
<td>Assistant Professor of Surgery (General Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Alison K Snyder-Warwick, MD</td>
<td>MD Marshall University 2008</td>
<td>Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Dirk M Spitzer, PHD</td>
<td>Assistant Professor of Surgery (General Surgery) (primary appointment)</td>
<td></td>
</tr>
<tr>
<td>Alan Joel Stein, MD</td>
<td>Assistant Professor of Clinical Surgery (Urologic Surgery) (primary appointment)</td>
<td></td>
</tr>
<tr>
<td>Steven M Strasberg, MD</td>
<td>Prueft Professor of Surgery (General Surgery) (primary appointment)</td>
<td></td>
</tr>
<tr>
<td>Herbert Sunshine, MD</td>
<td>Associate Professor of Cell Biology and Physiology</td>
<td></td>
</tr>
<tr>
<td>Siobhan Sutcliffe, MHS, PHD, MS</td>
<td>BS Princeton University 1998</td>
<td>Professor of Surgery (Public Health Sciences) (primary appointment)</td>
</tr>
<tr>
<td>Tsuyoshi Takahashi, MD, PHD</td>
<td>Instructor in Surgery (Cardiothoracic Surgery) (primary appointment)</td>
<td></td>
</tr>
<tr>
<td>Marissa Morningstar Tenenbaum, MD</td>
<td>BS Univ of Wisconsin Madison 1998</td>
<td>Associate Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)</td>
</tr>
<tr>
<td>Ajit K Tharakan</td>
<td>Visiting Assistant Professor of Surgery (primary appointment)</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Information:**

- **BA** Bachelor of Arts
- **MD** Doctor of Medicine
- **PHD** Doctor of Philosophy
- **BS** Bachelor of Science
- **MS** Master of Science
- **MHS** Master of Health Sciences
- **MD1** Doctor of Medicine (first professional degree)
- **PHD** Doctor of Philosophy (first professional degree)
- **BA** Bachelor of Arts (first professional degree)
- **MD** Doctor of Medicine (first professional degree)
- **BS** Bachelor of Science (first professional degree)

**University References:**

- **Washington University in St. Louis**
- **University of Virginia**
- **Vanderbilt University**
- **Stanford University**
- **Kasturba Medical College**
- **MD Kasturba Medical College**
- **Institute of Medical Science**
- **Johns Hopkins University**
- **Pennsylvania State University**
- **Temple University**
- **MD School Not Listed**
- **Madras Medical College**
- **Kettering University**
- **Marshall University**
- **Washington Univ in St. Louis**
- **University of MO Kansas City**
- **University of Tokyo**
- **Tokushima University**
- **University of Toronto**
- **University of Wisconsin Madison**
- **Wayne State University**
- **University of Pittsburgh**
- **University of MO Kansas City**
- **University of St. Louis**
- **Princeton University**
- **Johns Hopkins University**
- **Knox College**
- **Lewis Jones Thomas IV, MD**
Assistant Professor of Surgery (Urologic Surgery) (Pending Executive Faculty Approval) (primary appointment)
MD University of MO Columbia 2012
BS Washington Univ in St. Louis 2008

Robert W Thompson, MD
Professor of Surgery (General Surgery) (primary appointment)
Professor of Cell Biology and Physiology
Professor of Radiology
BA Hope College 1979
MD University of Michigan 1983

Adetunji Toriola, PHD
Associate Professor of Surgery (Public Health Sciences) (primary appointment)
PHD University of Tampere 2011

Ralph J Torrence, MD
Asst Prof of Clinical Surgery (Urologic Surgery) (primary appointment)
MD Georgetown University 1983

Erica J Traxel, MD
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
MD Beaufort Technical College 2002
BS Texas A&M University 1998

Thomas H Tung, MD
Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
MD University of Maryland 1990
BS Duke University 1986

Isaiah Turnbull, MD, MS
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS University of Oregon 1998
MD Washington Univ in St. Louis 2008
MS Washington Univ in St. Louis 2008

Kelly Jean Vallar, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
MD University of MO Kansas City 2011

Ramakrishna Venkatesh, MD, MS1, MS
Professor of Surgery (Urologic Surgery) (primary appointment)
MD Bangalore University 1988
MS1 School Not Listed 1991
MS Bangalore University 1991

Jesse Daya Vrecenak, MD
Assistant Professor of Surgery (Pediatric Surgery) (primary appointment)
BS Yale University 2003
MD University of Pennsylvania 2007

Gino J Vricella, MD
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)
MD University of MO Columbia 2006
BS Saint Louis University 2012

Howard S Walker, MD
Instructor in Clinical Surgery (Cardiothoracic Surgery) (primary appointment)
BA Citadel 1971
MD Beaufort Technical College 1974

Lisa Marie Waller, MS, PHD
Professor of Surgery (Public Health Science) (primary appointment)
MS University of Memphis 1991
BS Concordia College 1982
PHD University of Minnesota 1995

Fei Wan, PHD, MS
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
PHD University of Pennsylvania 2015
MS University of Vermont 2001

Brad W. Warner, MD
Jessie L. Ternberg, M.D., PhD. Distinguished Professor of Pediatric Surgery in Surgery (Pediatric Surgery) (primary appointment)
Professor of Pediatrics
BS University of MO Kansas City 1982
MD University of MO Kansas City 1982

Erika Waters, M PH, MS PSYC, PHD
Associate Professor of Surgery (Public Health Sciences) (primary appointment)
M PH Johns Hopkns University Medic 2007
BS Arizona State University 1999
MS PSYC Rutgers University 2003
PHD Rutgers University 2006

Michael D Weiss, DPM, BS1
Assistant Professor of Surgery (General Surgery) (primary appointment)
DPM Ohio College of Pediatric Medi 1981
BS1 Ohio State University 1977

Jason R Wellen, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
MD St George's University 2002
BS Emory University 1998

Brad C White, MD
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)
MD Loyola University Chicago 1993
Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
PHD Humboldt University 2012

Research Electives

Surgery Research Electives

During the fourth year, opportunities exist for many varieties of advanced clinical or research experiences.

Section of Minimally Invasive Surgery
660 S. Euclid, Box 8109
Phone: 314-454-8877

Under the direction of L. Michael Brunt, MD, students may investigate minimally invasive gastrointestinal and hernia surgery. The minimum rotation length is four weeks. Under the auspices of the Section of Minimally Invasive Surgery and the Washington University Institute for Minimally Invasive Surgery, a number of surgeons are investigating outcomes of various minimally invasive surgical approaches to abdominal wall hernias, benign foregut disorders, bariatric surgery and cholecystectomy. Dr. Brunt is currently investigating the clinical outcomes and standardization of various laparoscopic surgical procedures, opioid prescribing patterns and opioid use in surgical patients, and education-related research and skills training for medical students planning to enter a surgical internship.

Division of Plastic and Reconstructive Surgery
660 S. Euclid, Box 8238
Phone: 314-747-0541

The Division of Plastic Surgery offers many opportunities for research projects on various topics related to plastic surgery. A project will be designed with students prior to their rotation on plastic surgery so that all of the materials and methods will be available at the beginning of the rotation. The basic science laboratories primarily investigate nerve injury and regeneration, including nerve transplantation. Students will be encouraged to design and complete their own research study during the elective. The minimum rotation length is six weeks.

The research rotation can be conducted in the plastic surgery laboratories under the direction of Drs. Moore, Snyder-Warwick, Wood or Mackinnon. Ongoing projects include the following:

• The influence of the immune system on nerve regeneration;
• Neural tissue engineering and regenerative medicine therapeutics, such as electrical stimulation to promote tissue regeneration
• The investigation of glial cells at the neuromuscular junction during development, maintenance, aging, and after nerve injury
Additional clinical and educational research opportunities in various fields of plastic surgery are available with Drs. Fox, Myckatyn, Patel, Tung, and Woo. These various projects include the following:

- In vivo tissue generation and tissue differentiation
- The mechanical, structural and biochemical effects of stress on scar tissue maturation
- In vivo anatomy of craniofacial deformities
- Outcome analysis of methods of cleft lip and palate management
- Breast reconstruction (3D imaging of breasts after cosmetic or reconstructive surgery, interpretation of angiograms of the breast to measure nipple perfusion)
- The use of nerve transfer to improve hand function in patients with cervical spinal cord injury/quadruplegia
- Surgical education (specifically web-based multimedia strategies for peripheral nerve surgery education)

The Department of Surgery can host Washington University medical students in any of its labs either to receive credit for a class they are currently enrolled in or to add them into the system as Washington University student employees to be paid for their time worked. Student work may be obtained through the Federal Work-Study program, the Office of Medical Student Research, or direct communication initiated by the student with faculty they wish to work alongside on specific subjects of interest with the goal of furthering their education. This can occur during any year of a medical student’s education.

Courses

M95 Surgery 790 Integrated Surgical Disciplines Clerkship
During the 12-week surgery clerkship, students are assigned to three separate rotations. Each student is assigned to three separate rotations. Each student is assigned to a required general surgery rotation at Barnes-Jewish Hospital or the John Cochran Veterans Administration Medical Center. In addition, each student selects elective rotations in other general surgical fields, surgical subspecialties and related disciplines of critical care. The student is an active participant in the daily care of patients on each service and attends the service teaching conferences and rounds. For the duration of the 12-week rotation, there are weekly small-group tutorial sessions with faculty members and a biweekly lecture series. Credit 462 units.

M95 Surgery 814 Trauma Service Subinternship
The student on this elective will function as a subintern on the Trauma and Acute Care Surgical Service within the Section of Acute and Critical Care Surgery. Through completion of this subinternship, the student will gain an ability to evaluate, resuscitate and manage trauma and emergency general surgery patients. Subinterns will actively interact with patients in the outpatient office, hospital ward and operating room. Practical experience will involve preoperative patient evaluation, resuscitation of acutely ill patients, operative patient management, in-hospital patient care and postoperative outpatient follow-up. The student will also participate in affiliated conferences and in-house call.

M95 Surgery 818 Surgical Night Float & ED Subinternship
This subinternship is specifically designed to give senior medical students an intern-level experience in managing acute onc- call problems in surgical patients and in evaluating urgent and emergent problems in the ED. The rotation will be divided into two, two-week segments: one segment in the ED and the second on night float call on the surgical floors. Students will gain experience evaluating and managing the types of acute problems they will encounter as surgical interns as first responders to patients with acute abdominal pain, chest pain, hypotension, mental status changes, and other ER/on-call type problems. They will be assigned to the on-call surgical resident and will have a structured experience in order to maximize development of their diagnostic, management, and case presentation skills in the acute care setting so that they may more smoothly make the transition to a surgical internship.

M95 Surgery 820 Cardiothoracic Surgery Subinternship
The senior elective in cardiothoracic surgery is a four-week clinical rotation with two week blocks divided between adult cardiac, pediatric cardiothoracic, and general thoracic surgery according to the student's preference. Students will participate in morning work rounds, attend the operative procedures of their choice, and attend weekly conferences and teaching rounds. Students will be introduced not only to the surgical procedures but also to the postoperative care of the surgical patients. On the pediatric and adult cardiac services, students will be introduced to the principles of cardiopulmonary bypass, ventricular assist devices, cardiac transplantation, coronary artery bypass surgery (on and off pump), valve repair and replacement, complex aortic surgery, the MAZE procedures and others. On the adult cardiac surgery service, students will function as subinterns under the direct supervision of a faculty member. On the thoracic surgical rotation students will have the opportunity of performing bronchoscopy, esophagoscopy, gastroscopy, and participate in surgical resections of lung cancer and esophageal cancer, as well as surgery for emphysema and for benign esophageal conditions. Students will also participate in lung transplantation surgery.

M95 Surgery 830 Plastic & Reconstructive Surgery Subinternship
The period on Plastic Surgery may either be spent as a clinical clerkship or conducting a research project. The purpose of the clinical subinternship is to familiarize the student with the basic principles of Plastic Surgery. The student will have successive assignments to each of the attending staff and the ward resident services during the four weeks. This will expose the student to the breadth and depth of plastic surgery. Alternatively, if the student has identified a focus of interest, the student may participate on those services of special interest, such as hand or pediatric plastic surgery. The student will assume an active role on the plastic surgery service and will participate in the total management of a wide variety of surgical problems including congenital anomalies, microvascular surgery, surgery of the upper extremity, peripheral nerve surgery, cosmetic surgery, and
general reconstructive plastic surgery. Research projects should be student-motivated, and must be approved prior to scheduling and confirming the research rotation. Student will perform a ten-minute case presentation.

**M95 Surgery 832 Plastic Surgery Externship**
This course is for visiting medical students only. Students rotate on different Plastic Surgery Services for two weeks each to maximize exposure to all faculty. The student will assume an active role on the plastic surgery service and will participate in the total management of a wide variety of surgical problems including congenital anomalies, microvascular surgery, surgery of the upper extremity, peripheral nerve surgery, cosmetic surgery, and general reconstructive plastic surgery. Participation in conferences is expected. Students will turn in two H&Ps.

**M95 Surgery 850 Urology Subinternship**
The four-week clinical subinternship will offer the interested student experience with a spectrum of problems in clinical urology - both adult and pediatric. The student will learn the basic diagnostic procedures and management of surgical and non-surgical aspects of patient care under the supervision of the attending staff and house staff. Clinical conferences are held two days per week. Medical students are also invited to participate in ongoing research projects under the mentorship of urology faculty. Please contact course director prior to the start of the elective if you are interested in this option.

**M95 Surgery 862 Colon & Rectal Surgery Subinternship**
This subinternship elective is designed to give students in-depth experience in the clinical management of patients on the Colorectal Surgery Service. Students work closely with the attendings within the Section of Colon and Rectal Surgery, and clinical exposure is focused on a wide range of benign and malignant colorectal diseases. There is exposure to radiation oncology and the specialized areas of nursing related to care of patients with colorectal cancer and inflammatory bowel disease. The course will offer opportunities for students to gain experience in preoperative, intraoperative and postoperative, patient management under house staff, fellows, and faculty guidance, as well as ample opportunity to attend and participate in conferences. Notice: If a student desires to work more closely with a specific attending, he/she must make special arrangements with the faculty member prior to beginning this elective.

**M95 Surgery 863 Surgical Oncology & Endocrine Surgery Subinternship**
This subinternship is designed to give students in-depth experience in the clinical management of patients on the Endocrine and Surgical Oncology Service (Unit I Service). Students will serve as clerks and will be responsible for patient management with house staff under the guidance of the chief resident and attending surgeons. Clinical exposure is focused on thyroid and parathyroid surgery, as well as breast oncology, melanoma, and soft-tissue sarcomas. The course will offer opportunities for students to gain experience in preoperative, intraoperative, and postoperative patient management. There will be opportunity for students to evaluate patients, decide on a diagnostic and management strategy and provide care under house staff and faculty guidance, as well as ample opportunity to attend and participate in conferences.

**M95 Surgery 864 Ethical Challenges in Surgery and Medicine**
This elective will involve exploration of the ethical challenges discussed during didactic conferences and in clinical settings within the Department of Surgery at Washington University in St. Louis School of Medicine. The student will be guided through readings, discussions, and projects by department faculty members with expertise in clinical ethics. The elective will result in a manuscript ready to be revised/ finalized for publication submission with the student as lead author. This elective provides the opportunity to work closely with faculty mentors and should appeal to any student interested in the ethical and humanitarian challenges facing physicians in particular and society in general.

**M95 Surgery 871 Vascular Surgery Subinternship**
This subinternship elective is designed to give students in-depth experience in the clinical management of patients on the Vascular Surgery Service. The elective will offer opportunities for students to gain experience in preoperative, intraoperative and postoperative management of patients with surgically treated vascular diseases/conditions. Students will serve as clerks and will be responsible for patient management with house staff under the guidance of the fellow and attending surgeons. There will be opportunity for students to evaluate patients, decide on a diagnostic and management strategy, and provide care under house staff and faculty guidance, as well as ample opportunity to attend and participate in conferences. Notice: If a student desires to work more closely with a specific attending, he/she must make special arrangements with the faculty member prior to beginning this elective.

**M95 Surgery 879 Hepatobiliary-Pancreatic Surgery Subinternship**
This subinternship is designed to give students in-depth experience in the clinical management of patients on the Hepatobiliary-Pancreatic (HPB) Service. The HPB Service is a busy upper gastrointestinal service with a focus on hepatobiliary and pancreatic diseases and their treatment. The course offers opportunities for students to gain experience in preoperative, intraoperative, and postoperative patient management. Students will serve as clerks and will be responsible for patient management with house staff under the guidance of the fellow, chief resident and attending surgeons. There will be opportunity for students to evaluate patients, decide on a diagnostic and management strategy, and provide care under house staff and faculty guidance, as well as ample opportunity to attend and participate in conferences. Notice: If a student desires to work more closely with a specific attending, he/she must make special arrangements with the faculty member prior to beginning this elective.

**M95 Surgery 880 Pediatric Surgery Subinternship**
This subinternship will expose the student to a wide variety of pediatric surgical cases. This includes the preoperative and postoperative care of patients as well as the care of pediatric trauma patients. Daily walking or sit-down rounds are made with the resident, nurse practitioner, and attending staff, and participation is expected in the pediatric surgery clinic and the operating room. Weekly conference attendance is mandatory and includes mortality and morbidity, radiology, pathology, solid tumor board, ED/trauma, and GI conferences. Students have the opportunity to understand the widely differing anatomy and
physiology of patients ranging from newborn infants to teenagers and young adults. The student functions as a team member and assumes level-appropriate responsibilities as determined by senior team members in this highly specialized care field.

M95 Surgery 891 Organ Transplantation Subinternship
The care of transplant patients requires the integration of multiple diverse medical and surgical disciplines. This subinternship in organ transplantation encompasses the preoperative evaluation and management of adult and pediatric recipients of liver, kidney, and pancreas. Students participate in procurement of allografts from cadaveric or living donors, organ preservation, and transplantation. Emphasis is also placed on postoperative care, multimodality immunosuppression and management of allograft rejection. Basic hepatic and renal physiology, fluid and electrolyte balance, and transplantation immunology are stressed. Rotation provides an elaborate exposure to different facets of management of end stage renal and liver disease. Management of the complications of diabetes, hypertension, portal hypertension, and infectious problems are an integral part of pre- and post-transplant care. This course is designed to offer the student an overview of the field of organ transplantation, however, in addition to transplant surgery, students will also get some exposure to vascular access and hepatobiliary surgery. The student functions as a member of the transplant team and assumes appropriate responsibilities under supervision.

M95 Surgery 893 Minimally Invasive Surgery Subinternship
This subinternship elective in minimally invasive surgery is offered by the Chief of the Section of Minimally Invasive Surgery in the General Surgery Division. Surgeons in the Minimally Invasive Surgery group regularly perform the following procedures laparoscopically: cholecystectomy, splenectomy, adrenalectomy, hiatal hernia repair, endoscopic myotomy for achalasia, inguinal hernia repair, ventral hernia repair, complex abdominal wall reconstruction, robotic surgery, and bariatric surgery for morbid obesity. The medical student electing this rotation will participate in the outpatient office and direct patient care, assist and observe in a wide range of laparoscopic procedures and participate in teaching rounds and conferences. During this rotation, the student will also have the opportunity to observe and participate in minimally invasive surgical procedures performed by various surgeons within the Section of Minimally Invasive Surgery and will function as an acting intern.

M95 Surgery 900 Research Opportunities-Surgery
Research opportunities may be available. If interested, please contact the department of Surgery.