Mary Culver
Department of Surgery

The formal instruction in surgery begins in 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 the department. The clerkship gives students opportunities to participate in the care of surgical patients, both in- and outpatient; to spend time in the operating rooms; and to attend seminars, teaching conferences and didactic sessions on a regular basis. In 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, and plastic and reconstructive surgery).

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

Degrees & Requirements

While the Department of Surgery 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

L. Michael Brunt, MD
Barnes-Jewish Hospital, 1160 Northwest Tower
Phone: 314-454-8877

Minimally invasive surgery, including endocrine applications. Minimum rotation length: four weeks. Under the auspices of the Washington University Institute for Minimally Invasive Surgery (WUIMIS), a number of surgeons are investigating the physiologic consequences of laparoscopic surgery and new applications for procedures and technologies. Dr. Brunt is currently investigating clinical outcomes of various laparoscopic surgical procedures, laparoscopic hiatal hernia surgery and adrenal surgery, and is carrying out education-related research of skills training for senior 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 the student prior to his/her 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 investigate primarily nerve injury and regeneration including nerve transplantation. The student will be encouraged to design and complete his/her own research study during the elective. 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:

1. influence of growth factors and blood flow on nerve regeneration;
2. neural tissue engineering;
3. diagnostic potential of biomarkers to identify nerve injury; and
4. investigation of glial cells at the neuromuscular junction during development, maintenance, aging, and following 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:

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

Faculty

Clerkship Director
John P. Kirby, MD, MS

Clerkship Associate Director
Eleanor Lynn Powell Drew, MD, AB

Visit our website for more information about our faculty (http://www.surgery.wustl.edu/Faculty) and their appointments.
Aaron Michael Abarbanell  
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  

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

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  

Jeffrey Michael Arbeit, MD  
Professor of Surgery (Urologic Surgery) (primary appointment)  
Professor of Cell Biology and Physiology  
BS Boston University 1972  
MD Rush University 1976  

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

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

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

Joaquin Barnoya, MS, MD  
Associate Professor of Surgery (Public Health Sciences) (primary appointment)  
Associate Professor of Medicine  
MS Harvard University 2001  
MD Universidad de San Carlos 1998  

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)  
BS Cornell University 1992  
MD Washington Univ in St. Louis 1996  

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

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

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

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)  
PHD University of Edinburgh 1983  
BS University of Edinburgh 1979  

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

Donald William Buck, MD  
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
BS Indiana University Bloomington 2002  
MD Johns Hopkins University 2006  

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

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 Lousiana 1983

C

Yin Cao
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

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

Diego Casali, MD
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
Assistant Professor of Anesthesiology
MD University of Brescia 2007

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

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

Chun-Cheng Chen, PHD, MD, BEE
Instructor in Surgery (General Surgery) (Pending Dean's Approval) (primary appointment)
PHD Vanderbilt University 2006
MD Vanderbilt University 2009
BEE Mass Inst of Technology (MIT) 1999

Gerald Jeung-II Cho
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

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

MD Saint Louis University 1963

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

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

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

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

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

Brian P. Cupps, PHD, MS
Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
BS University of CA Davis 1983
PHD Texas A&M University 1994
MS Texas A&M University 1988

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

D

Ralph James Damiano Jr, MD
Evarts Ambrose Graham Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD Duke University 1980
BA Dartmouth College 1976
Kia L Davis
Assistant Professor of Surgery (Public Health Sciences)
(Pending Executive Faculty Approval) (primary appointment)

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
BA Brown University 1983
MD Georgetown University 1988

Maria Bernadette Majella Doyle, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
MD Trinity College Dublin 1996
BS Trinity College Dublin 1990

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

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

Stephen Ray Eaton, BS1, MS1, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS1 Southern Illinois University 1997
MS1 Southern Illinois University 2000
MD Ross University 2005

Timothy J Eberlein, MD, MA
Bixby Professor of Surgery (General Surgery) (primary appointment)
Director of The Alvin J. Siteman Cancer Center
Head of the Department of Surgery
Professor of Pathology and Immunology
Spencer T. and Ann W. Olin Distinguished Professor

BS University of Pittsburgh 1973
MD University of Pittsburgh 1977
MA Harvard University 1996

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
BS University of CA Los Angeles 1987
MS 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)
MD University of Pennsylvania 2007
BA College of Wooster 2000

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

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

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

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

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

Bradley D. Freeman, MD
Professor of Surgery (General Surgery) (primary appointment)
Jun Guo, MS, PHD
Assistant Professor of Surgery (Pediatric Surgery) (primary appointment)
BS Nanjing University 1991
MS Dalian Medical University 1997
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
PHD Duke University 1991
BA Princeton University 1984
MD Duke University 1992

Chet Hammill
Associate Professor of Surgery (General Surgery) (primary appointment)

William G. Hawkins, MD
Professor of Surgery (General Surgery) (primary appointment)
Neidorff Family and Robert C Packman Professor
MD State Univ of NY Stonybrook 1995
BA New York University 1991

Mark Francis Heiland
Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

Virginia M Herrmann, MD
Professor of Surgery (General Surgery) (primary appointment)
Professor of Medicine
MD Saint Louis University 1974

Jean Marie Hunleth, M PH, PHD
Instructor in Surgery (Public Health Sciences) (primary appointment)
BA Vanderbilt University 1998
M PH Northwestern University 2011
PHD Northwestern University 2011

Steven R Hunt, MD
Associate Professor of Surgery (General Surgery) (primary appointment)
BA Dartmouth College 1992
Kareem D. Husain, MD  
Assistant Professor of Surgery (General Surgery) (primary appointment)  
BS University of Notre Dame 1995  
MD Wayne State University 2002

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

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

Senthil N Jayarajan  
Assistant Professor of Surgery (General Surgery) (primary appointment)

Jeffrey Jim, MD, MS  
Associate Professor of Surgery (General Surgery) (primary appointment)  
MD University of CA Irvine 2003  
MS University of Southern Calif 1999  
BS University of Southern Calif 1996

Dane P Johnson  
Assistant Professor of Surgery (Urologic Surgery) (Pending Executive Faculty Approval) (primary appointment)

Puja Kachroo, MD, MS  
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)  
BS Boston University 2001  
MD Ross Univ School of Medicine 2007  
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  
MD University of Vermont 1990  
BS University of Pennsylvania 1985

Adeel Khan, MD  
Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)  
MD Aga Khan University 2002  
BS Bahria University 1997

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

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

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  
Sr Associate Dean for Education  
Vice Chairman for Education, Department of Surgery  
BA Wellesley College 1988  
MD Duke University 1992

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

David Paul Krajcovic, MD  
Instructor in Clinical Surgery (General Surgery) (primary appointment)  
BA Washington Univ in St. Louis 1965  
MD Washington Univ in St. Louis 1969

Daniel Kreisel, PHD, MD
L

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

Constance Wye Leng Lee, MD
Instructor in Surgery (Pediatric Surgery) (primary appointment)
BS University of Virginia 2001
MD University of Virginia 2006

Jerome F Levy
Professor Emeritus of Surgery (General Surgery) (primary appointment)

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

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

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

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

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

Stanley L London, MD
Associate Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1949

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

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

Jingqin Luo, PHD, MS, MS1
Assistant Professor of Surgery (Public Health Sciences) (primary appointment)
Assistant Professor of Biostatistics
Assistant 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
Sydney M., Jr. and Robert H. Shoenberg Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
Professor of Occupational Therapy
Professor of Otolaryngology
MD Queen's University 1975
BA Queens College 1971

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

Peter Bruce Manning, MD
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
BS Bucknell University 1978
MD University of Michigan 1982

Julie Ann Margenthaler, MD
Professor of Surgery (General Surgery) (primary appointment)
MD Southern Illinois University 1997
BA Boston University 1993

Muhammad Faraz Masood, MD
Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
MD Dow Medical College Karachi 2001

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

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)
MD University of Utah 2002
BS Brigham Young University 1997

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)
MD Washington Univ in St. Louis 1966
BA University of Texas Austin 1962

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)
MD Wayne State University 1988
BS University of Michigan 1983

Amy M. Moore, MD
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
MD Virginia Comm University 2004

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
Assistant Professor of Surgery (Urological Surgery) (primary appointment)

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)
MD Univ of Northern British Colu 1997
BS Univ of Northern British Colu 2003

Neal Neuman, MD
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)
MD Saint Louis University 1971

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

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

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

John Westley Ohman
Assistant Professor of Surgery (General Surgery) (primary appointment)

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

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
BS University of Houston 1992
MD Univ Texas Health Sci San Anto 1997

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

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

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

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)
MD University of Arizona 2005
BS University of MO Kansas City 2000

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

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

Laurie Jean Punch, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS Yale University 1997
BS Yale University 1997

MD University of Connecticut 2002

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

R

Nishant Raj
Assistant Professor of Surgery (General Surgery) (primary appointment)

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

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

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

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
BA Colgate University 1979
MD University of Vermont 1984

S

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

Arghavan Salles, PHD, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
PHD Stanford University 2014
BA University of Southern Calif 2002
MD Stanford University 2006

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

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

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

Richard B Schuessler, MS, PHD
Professor of Surgery (Cardiothoracic Surgery) (primary appointment)
Associate Professor of Biomedical Engineering
MS University of Missouri 1974
PHD Clemson University 1977
BS University of Missouri 1973

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

Homayoun Sedighi, DDENT
Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BA Indiana University Bloomington 1983
DDENT Washington Univ in St. Louis 1987

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

Courtney Shands III, MD
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)
BA Stanford University 1978
MD Vanderbilt University 1982

Surendra Shenoy, PHD, MD
Professor of Surgery (General Surgery) (primary appointment)
PHD Institute of Medical Science 1989
BS Kasturba Medical College 1980
MD Kasturba Medical College 1984

Forest Raymond Sheppard
Associate Professor of Surgery (General Surgery) (primary appointment)

Matthew Leon Silviera, MS1, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
MS1 Temple University 2010
BS Pennsylvania State University 2001
MD Temple University 2005

David Siroospour, MD
Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)
MD School Not Listed 2000

Jason Andrew Snyder, MD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS Kettering University 2004
MD Marshall University 2008

Alison K Snyder-Warwick, MD
Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)
BA Knox College 2000
MD Washington Univ in St. Louis 2004

Dirk M Spitzer, PHD
Assistant Professor of Surgery (General Surgery) (primary appointment)
BS School Not Listed 1995
PHD Technische U Braunschweig 1999

Alan Joel Stein, MD
Assistant Professor of Clinical Surgery (Urologic Surgery) (primary appointment)
BS Univ of Wisconsin Madison 1972
MD Wayne State University 1976

Daniel Charles Stoeckel
Instructor in Clinical Surgery (primary appointment)

Steven M Strasberg, MD
Prueutt Professor of Surgery (General Surgery) (primary appointment)
Associate Professor of Cell Biology and Physiology
MD University of Toronto 1963

Herbert Sunshine, MD
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)
MD Washington Univ in St. Louis 1954
BA Washington Univ in St. Louis 1950

Siobhan Sutcliffe, PHD, MS, MHS
Associate Professor of Surgery (Public Health Sciences) (primary appointment)
PHD Johns Hopkins University 2005
BS Princeton University 1998
MS Johns Hopkins University 2004
MHS Johns Hopkins University 2001
Marissa Morningstar Tenenbaum, MD  
Associate Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
MD Washington Univ in St. Louis 2002  
BS Univ of Wisconsin Madison 1998

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

Adetunji Toriola, PHD  
Assistant Professor of Surgery (General Surgery) (primary appointment)  
PHD University of Tampere 2011

Ralph J Torrence, MD  
Assistant Professor of Surgery (Urologic Surgery) (primary appointment)  
MD Georgetown University 1983

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

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)  
MD Washington Univ in St. Louis 2008  
MS Washington Univ in St. Louis 2008  
BS University of Oregon 1998

Kelly Jean Vallar  
Assistant Professor of Surgery (General Surgery) (primary appointment)

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

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

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

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  
MS PSYC Rutgers University 2003  
BS Arizona State University 1999  
PHD Rutgers University 2006

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

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

Brad C White, MD  
Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)  
MD Loyola University Chicago 1993  
BS Illinois State University 1986

Bruce I White, MD  
Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)  
MD Washington Univ in St. Louis 1964

Paul Edward Wise, MD  
Professor of Surgery (General Surgery) (primary appointment)  
MD John Hopkins University 1996  
BS Georgetown University 1992
During the 12-week surgery clerkship, 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.

<table>
<thead>
<tr>
<th>Courses</th>
</tr>
</thead>
</table>

**M95 Surgery 790 Integrated Surgical Disciplines Clerkship**
During the 12-week surgery clerkship, each student is assigned to three separate rotations. Each student is assigned to a...
management, and postoperative outpatient follow-up after discharge. Clinical exposure is focused on a wide range of benign and malignant colorectal disease. 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 student is expected to attend and participate in all conferences. Specifics of the elective should be planned in advance with Dr. Kodner or Dr. Fleshman.

M95 Surgery 812 Trauma, Burns and Critical Care
William W. Monafo, MD; 6104 Queeny Tower; 314-362-5297; four weeks; periods A-L; limit 2/period. In this elective the student will serve as a regular active member of the Trauma, Burns & Critical Care Service. They will be involved with the comprehensive hospital management of the patient with severe burns or trauma. Students will be active in the Emergency Department, the Operating Room, the Trauma and Burns Intensive Care Unit and the Trauma and Burn Convalescent Division. Practical experience will be obtained in resuscitation and shock management, hemodynamic monitoring, ventilatory support, nutrition support, surgical infections, wound care and rehabilitation. Students will participate in all regular rounds, conferences, and other activities of the service. Regular in-house night call is required. Students should meet with the course director prior to the beginning of the elective.

M95 Surgery 813 Unit III/Trauma Elective Rotation
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. The student will work closely with Dr. Buchman within the Section of Burns, Trauma and Surgical Critical Care, and will function as a sub-intern on the Trauma and Emergency Service. Student involvement in all aspects of clinical surgery is accomplished by student attendance in the outpatient office, preoperative patient evaluation, in-hospital patient management and postoperative outpatient follow-up after discharge. Practical experience will focus on the initial evaluation and resuscitation of traumatized patients and other emergency care patients. The student will also participate in regular rounds, conferences, and in-house call.

M95 Surgery 814 Acting Internship, Trauma Service
The student on this elective will function as a sub-intern on the Trauma and Acute Care Surgical Service within the Section of Acute and Critical Care Surgery. Student involvement in all aspects of clinical surgery is accomplished by student attendance in the outpatient office, preoperative patient evaluation, in-hospital patient management, and postoperative outpatient follow-up after discharge. Practical experience will focus on the initial evaluation and resuscitation of traumatized patients and other emergency care patients. The student will also participate in regular rounds, conferences, and in-house call.

M95 Surgery 816 Emergency Department-Surgery
William W. Monafo, MD; 6104 Queeny Tower; 314-362-5297; four weeks; periods A-L; limit 2/period. This elective provides the student with an intensive experience in the evaluation and management of a wide variety of medical and surgical emergencies. Students work closely with the Emergency Department Attending Physicians and senior house staff. As much as possible, students are allowed flexibility in scheduling and may choose to be on duty in either 24-hour blocks or 12-hour ones for approximately 72 hours per week. Students will participate in regular Emergency Department conferences as well as a weekly meeting with the course director. Final grade will be based on evaluations from Emergency Department attending staff, senior house staff, and the course director. Students should meet with the course director prior to the beginning of the elective.

M95 Surgery 818 Surgical Night Float & ER Sub-Internship
This sub-internship is specifically designed to give senior medical students an intern-level experience in managing acute on-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 ED 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
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. 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 sub-interns 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
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. The period on plastic surgery may either be spent as a clinical clerkship or conducting a basic laboratory project. The purpose of the clinical clerkship is to familiarize the student with the basic principles of tissue repair and reconstruction. The student will have successive assignments to each of the attending staff and the ward resident 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.
ankle problems as well as their operative and nonoperative care. Students should have gained a basic knowledge of foot and ankle surgery, surgical cases, outpatient clinics, inpatient care and weekly didactic sessions/conferences. Participation in conferences is expected. Students will perform a 10-minute case presentation.

M95 Surgery 838 Pediatric Orthopaedic Spine & Sports Surgery
Clinical elective available for four weeks during which time the student 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. Student will look at further their knowledge/experience in orthopaedics, specifically foot and ankle surgery. Attendance at and participation in the weekly pediatric orthopaedic conference activities required.

M95 Surgery 839 Orthopaedic Sports Medicine
This clinical elective is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds on the Sports Medicine service.

M95 Surgery 840 Orthopaedic Surgery-Foot/Ankle
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. This clinical elective is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds. The medical students electing this rotation will serve as an active and integral part of the orthopaedic team.

M95 Surgery 840A Orthopaedic Surgery-Foot/Ankle
This four-week clinical elective is available to medical students looking to further their knowledge/experience in orthopaedics, specifically foot and ankle surgery. Students will participate in surgical cases, outpatient clinics, inpatient care and weekly didactic sessions/conferences. At the completion of the elective, students should have gained a basic knowledge of foot and ankle problems as well as their operative and nonoperative care.

M95 Surgery 840B Orthopaedic Surgery-Foot/Ankle
This four-week clinical elective is available to medical students looking to further their knowledge/experience in orthopaedics, specifically foot and ankle surgery. Students will participate in surgical cases, outpatient clinics, inpatient care and weekly didactic sessions/conferences. At the completion of the elective, students should have gained a basic knowledge of foot and ankle problems as well as their operative and nonoperative care.

M95 Surgery 841 Orthopaedic Surgery-Reconstructive
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. This clinical elective is available for four weeks during which time the student will participate in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds. Night call is optional but is advisable. The medical students electing this clerkship will serve as an active and integral part of the orthopaedic team. Credit variable, maximum 154 units.

M95 Surgery 842 Orthopaedic Shoulder/Elbow Surgery
M95-842 A, B and C are identical courses with different course directors. Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens. Credit variable, maximum 154 units.

M95 Surgery 842A Orthopaedic Shoulder/Elbow Surgery
Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

M95 Surgery 842B Orthopaedic Shoulder/Elbow Surgery
Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

M95 Surgery 842C Orthopaedic Shoulder/Elbow Surgery
Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

M95 Surgery 845 Orthopedic Hand and Upper Extremity Surgery
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens. Please note that the hand/upper extremity fellow assigned to Dr. Manske’s service will also participate in the instruction of students choosing this elective.
M95 Surgery 845A Orthopedic Hand and Upper Extremity Surgery
Clinical elective available, during which time the student will work with attending surgeons primarily at Chesterfield and Center for Advanced Medicine. The service includes care of adult patients with traumatic, sports (arthroscopy), nerve, and degenerative disease. Activities will include participation in outpatient procedures, attendance at faculty clinic office hours, and attendance at orthopaedic conferences.

M95 Surgery 845B Orthopedic Hand and Upper Extremity Surgery
Clinical elective available, during which time the student will work with attending surgeon primarily at Barnes-Jewish Hospital. The service includes care of adult and pediatric patients with congenital, traumatic, sports (arthroscopy), nerve, and degenerative disease. Activities will include participation in outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

M95 Surgery 845C Orthopedic Hand and Upper Extremity Surgery
Clinical elective available, during which time the student will work with attending surgeon primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

M95 Surgery 845D Orthopedic Hand Surgery
Clinical elective available, during which time the student will work with attending surgeon primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

M95 Surgery 845E Orthopedic Hand and Upper Extremity Surgery
Clinical elective available, during which time the student will work with attending surgeons primarily at St Louis Children's Hospital, Chesterfield, Center for Advanced Medicine and St Louis Children's Specialty Care Center. The service includes care of adult and pediatric patients with congenital, traumatic, sports (arthroscopy), nerve, and degenerative disease. Activities will include participation in outpatient procedures, attendance at faculty clinic office hours, attendance at orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

M95 Surgery 846 Orthopaedic Trauma Elective
M95 846 A and B are the same elective with different course directors. Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. Clinical elective available for a four-week period, during which time the student will work in orthopaedic trauma at Barnes-Jewish Hospital. The student will work with a team of attendings, residents, PAs, and NPs to provide care for orthopaedic trauma patients. Activities include participation in the care of hospitalized inpatients, inpatient surgical procedures, outpatient office visits and daily conferences.

M95 Surgery 846A Orthopaedic Trauma
Clinical elective available for a four-week period, during which time the student will work in orthopaedic trauma at Barnes-Jewish Hospital. The student will work with a team of attendings, residents, PAs, and NPs to provide care for orthopaedic trauma patients. Activities include participation in the care of hospitalized inpatients, inpatient surgical procedures, outpatient office visits and daily conferences.

M95 Surgery 846B Orthopaedic Trauma
Clinical elective available for a four-week period, during which time the student will work in orthopaedic trauma at Barnes-Jewish Hospital. The student will work with a team of attendings, residents, PAs, and NPs to provide care for orthopaedic trauma patients. Activities include participation in the care of hospitalized inpatients, inpatient surgical procedures, outpatient office visits and daily conferences.

M95 Surgery 847 Orthopedic Spine Surgery
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. This clinical elective is available for four weeks during which time the student will work with the attending surgeon at Barnes-Jewish Hospital observing and assisting when appropriate in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly pediatric orthopaedic conference activities is required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

M95 Surgery 848A Orthopaedic Pediatric Surgery Elective
Clinical elective available for four weeks during which time the student will work with attending surgeon primarily at St. Louis Children's Hospital observing and assisting in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly pediatric orthopaedic conference activities required.

M95 Surgery 848B Orthopaedic Pediatric Surgery Elective
Clinical elective available for four weeks during which time the student will work with attending surgeon primarily at St. Louis Children's Hospital observing and assisting in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly pediatric orthopaedic conference activities required.

M95 Surgery 848C Orthopaedic Pediatric Surgery Elective
Clinical elective available for four weeks during which time the student will work with attending surgeon primarily at St. Louis Children's Hospital observing and assisting in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly pediatric orthopaedic conference activities required.

M95 Surgery 849 Orthopedic Spine Surgery in Adult Patients
M95 849A and B are the same elective with different course directors. Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. This clinical elective is available for four weeks during which time the student will work at designated orthopaedic conferences, and participation in ongoing research projects.
with the attending surgeon primarily at Barnes-Jewish Hospital observing and assisting when appropriate in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly orthopaedic conference activities is required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

**M95 Surgery 849A Orthopaedic Spine Surgery in Adult Patients**

This clinical elective is available for four weeks during which time the student will work with the attending surgeon primarily at Barnes-Jewish Hospital observing and assisting when appropriate in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly orthopaedic conference activities is required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

**M95 Surgery 849B Orthopaedic Spine Surgery in Adult Patients**

This clinical elective is available for four weeks during which time the student will work with the attending surgeon primarily at Barnes-Jewish Hospital observing and assisting when appropriate in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly orthopaedic conference activities is required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

**M95 Surgery 849C Orthopaedic Spine Surgery in Adult Patients**

This clinical elective is available for four weeks during which time the student will work with the attending surgeon primarily at Barnes-Jewish Hospital observing and assisting when appropriate in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly orthopaedic conference activities is required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

**M95 Surgery 850 Urology**

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. A four-week clinical clerkship in pediatric and/or adult urology will offer the interested student experience with a spectrum of problems in clinical urology. The student will learn the basic diagnostic procedures and management of surgical and nonsurgical aspects of patient care on the private and ward services under the supervision of the attending staff and house staff. Clinical conferences and anatomy sessions.

**M95 Surgery 851 Orthopaedic Pediatric Surgery**

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. Clinical elective available for four weeks during which time the student will work with attending surgeon at Shriners Hospital for Children-St. Louis observing and assisting in out- and inpatient care. Attendance at and participation in the weekly pediatric orthopaedic conference activities required.

**M95 Surgery 852 Orthopaedic Surgery - VA**

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. This clinical elective is available for four weeks during which time the student will participate in orthopedic conferences, outpatient clinics, surgical cases, and patient rounds. Night call is optional but is advisable. The medical students electing this clerkship will serve as an active and integral part of the orthopaedic team. Credit variable, maximum 154 units.

**M95 Surgery 854 Orthopaedic Spine Surgery with Emphasis On Cervical Spine**

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish and St. Louis Children's Hospitals observing and assisting in outpatient and inpatient care. To be included in the OR and outpatient clinics. Attendance at and participation in the weekly orthopaedic and spinal conference activities is suggested. Credit variable, maximum 154 units.

**M95 Surgery 855A Reconstructive/Joint Preservation Surgery**

Clinical elective available, during which time the student will work with the attending physician on the Adult Reconstruction and Joint Preservation/Replacement service. This rotation is primarily centered at Barnes-Jewish Hospital and includes care of hospitalized inpatients, participant in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopaedic educational conferences and anatomy sessions.

**M95 Surgery 855B Reconstructive/Joint Preservation Surgery**

Clinical elective available, during which time the student will work with the attending physician on the Adult Reconstruction and Joint Preservation/Replacement service. This rotation is primarily centered at Barnes-Jewish Hospital and includes care of hospitalized inpatients, participant in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopaedic educational conferences and anatomy sessions.

**M95 Surgery 855C Reconstructive/Joint Preservation Surgery**

Clinical elective available, during which time the student will work with the attending physician on the Adult Reconstruction and Joint Preservation/Replacement service. This rotation is primarily centered at Barnes-Jewish Hospital and includes care of young patients with hip impingement pathology and older patients with
end stage joint arthritis, hospitalized inpatients, participant in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopaedic educational conferences and anatomy sessions.

M95 Surgery 855D Reconstructive/Joint Preservation Surgery
This clinical elective is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds on the Reconstructive and Joint Preservation Surgery service.

M95 Surgery 858 Orthopaedic Oncology
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. This clinical elective, centered primarily at Barnes-Jewish Hospital, is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds on the Musculoskeletal Oncology service.

M95 Surgery 859 Orthopaedic Oncology
This clinical elective, centered primarily at Barnes-Jewish Hospital, is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds on the Musculoskeletal Oncology service.

M95 Surgery 861 Surgical Oncology and Endocrine Surgery
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. The student will work closely with Dr. Moley or Dr. Doherty within the Oncology and Endocrine Section of the Division of General Surgery. Student involvement in all aspects of clinical surgery is accomplished by student attendance in the outpatient office, preoperative patient's evaluation, in-hospital patient management, and postoperative outpatient follow-up after discharge. Clinical exposure is focused on thyroid, parathyroid and adrenal surgery, as well as breast oncology, GI oncology, melanoma, and soft-tissue sarcomas. Credit variable, maximum 154 units.

M95 Surgery 862 Acting Internship, Colon and Rectal Surgery
This sub-internship 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, they must make special arrangements with the faculty member prior to beginning this elective.

M95 Surgery 863 Acting Internship, Surgery Oncology-Endocrine
This sub-internship elective 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, parathyroid, and adrenal 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. Note: If a student desires to work more closely with a specific attending, they must make special arrangements with the faculty member prior to beginning this elective.

M95 Surgery 864 Ethical Challenges in Surgery and Medicine
Enrollment limit per period: 2. Valid start weeks for four-week block are: Weeks 1, 5, 9, 13, 17, 21, 33, 37 and 41. This elective will involve exploration of the ethical challenges discussed during four years of presentations at the monthly "Surgery/Ethics/Pizza Rounds" conducted by the Department of Surgery at Washington University School of Medicine and the WU Center for the Study of Ethics and Human Values. The readings, discussions and conclusions will be guided by Washington University and Barnes-Jewish Hospital ethicists and will result in a finished manuscript to be published, with the student as co-author, in the journal, Surgery. This elective provides the opportunity to work closely with the faculty in surgery and ethics and to participate in the many activities within the school, the Center, and B.J.H. It should appeal to any in the medical system interested in the ethical and humanitarian challenges facing medicine and society, in general.

M95 Surgery 871 Acting Internship, Vascular Surgery
This sub-internship 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 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, they must make special arrangements with the faculty member prior to beginning this elective.

M95 Surgery 879 Acting Intern, Hepatobiliary Pancreatic Surgery
This sub-internship elective is designed to give students in-depth experience in the clinical management of patients on the Hepatobiliary-Pancreatic (Unit II) Service. The Unit II Service is a busy upper-gastrointestinal service with a focus on hepatobiliary and pancreatic diseases and their treatment. The course will offer 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. Note: If a student desires to work more closely with a specific attending, they must make special arrangements with the faculty member prior to beginning this elective.

**M95 Surgery 880 Pediatric Surgery**
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. The student will participate as a sub-intern in all aspects of pediatric surgical patient care and will be exposed to a wide variety of pediatric surgical cases. This includes the preoperative and postoperative evaluation of patients as well as the care of pediatric trauma patients. Daily rounds are made with both the resident and attending staff and active participation is expected in the pediatric surgery clinic and the operating room. Weekly conferences include Mortality and Morbidity, Radiology, Pathology and case presentations, with the student expected to prepare a conference presentation on a topic of interest.

**M95 Surgery 891 Organ Transplantation**
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. The care of transplant patients requires the integration of multiple diverse medical and surgical disciplines. This elective clerkship 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. The student functions as a member of the transplant team and assumes appropriate responsibilities under supervision.

**M95 Surgery 892 Minimally Invasive Surgery**
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. An elective rotation in minimally invasive surgery is being offered by the Division of General Surgery. The coordinator for the rotation is Nathaniel J. Soper, MD, a member of the Hepatobiliary Pancreatic (HPB) Section of the General Surgery Division. Surgeons in this section of the Division of General Surgery regularly perform the following procedures laparoscopically: cholecystectomy, common bile duct exploration, staging of intra-abdominal malignant disease, gastric fundoplication, inguinal hernia repair and gastroenterostomy. 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 surgeons in other specialty sections within the Division of General Surgery, including Endocrine/Oncology (Drs. Doherty and Brunt), Colorectal Surgery (Dr. Flesham), and Urologic Surgery (Drs. Clayman and McDougall). The student may also elect to participate in the laboratory of the Washington University Institute for Minimally Invasive Surgery one or two days per week.

**M95 Surgery 893 Acting Internship, Minimally Invasive Surgery**
This sub-internship 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 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. Notice: If a student desires to work more closely with a specific attending, they must make special arrangements with the faculty member prior to beginning this elective.

**M95 Surgery 896 Preceptorships In General Surgery-Various Physicians**
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. Student involvement in all aspects of clinical surgery is accomplished by student attendance in the outpatient office, preoperative patient evaluation, in-hospital patient management, and postoperative outpatient follow-up after discharge. 896-F, Dr. Gregorio Sicard, 314-362-7841, Vascular Section, General Surgery.

**M95 Surgery 897 Preceptorship In General Surgery-Dr. Norton**
The student will work closely with Dr. Norton within the Section of Surgical Oncology and Endocrinology. Student involvement in all aspects of clinical surgery is accomplished by student attendance in the outpatient office, preoperative patient evaluation, in-hospital patient management, and postoperative outpatient follow-up after discharge.

**M95 Surgery 898 Preceptorship In General Surgery-Dr. Strasberg**
Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41. The student will work closely with Dr. Steven Strasberg within the Hepatobiliary Pancreatic Section in the Division of General Surgery. Student involvement in all aspects of clinical surgery is accomplished by student attendance in the outpatient office, preoperative patient evaluation, in-hospital patient management, and postoperative outpatient follow-up after discharge.

**M95 Surgery 8991 Orthopaedic Surgery Externship-Visiting Students Only**
Flexible scheduling is available for this externship. Students rotate on Orthopaedic Services in four-week blocks. During their rotations, students are assigned to two different services per week. Some subspecialties that students may rotate on include sports medicine, hand and upper extremity, foot and ankle, musculoskeletal oncology, adult reconstructive surgery, pediatric orthopaedics, shoulder and elbow, and
spine. For more information about the Orthopaedic Surgery Externship Program, visit the Externship Program webpage (http://www.ortho.wustl.edu/content/Education/2905/Training-Programs/Med-Student-Programs/Externship-Program/Overview.aspx).

**M95 Surgery 900 Research Opportunities-Surgery**

Research opportunities may be available. If interested, please contact the department of Surgery.