Department of Orthopaedic Surgery

Orthopaedic surgery is concerned with the injuries, diseases and conditions of the musculoskeletal system. The WUSM III rotation in Musculoskeletal Surgery & Medicine exposes the student to multiple aspects of orthopaedic surgery, including caring for patients in the emergency department and the operating room as well as clinical practice in the emergency department and the outpatient and inpatient wards.

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

Degrees & Requirements

Although the Department of Orthopaedic 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 of the School of Medicine section of this Bulletin.

Research

M95 Surgery 900

Various orthopaedic surgery research opportunities are available with the following faculty attendings. If interested, please contact the Education Office at 314-747-2543, email the orthopaedic surgery department (orthsurg@wudosis.wustl.edu) or contact the faculty member directly.

- Yousef Abu-Amer, PhD
- Alexander Aleem, MD
- Robert L. Barrack, MD
- Robert Brophy, MD
- Jacob M. Buchowski, MD, MS
- Ryan Calfee, MD
- Aaron Chamberlain, MD
- Cara A. Cipriano, MD
- John Clohisy, MD
- Matthew Dobbs, MD
- Charles A. Goldfarb, MD
- Farshid Guilak, PhD
- Munish Gupta, MD
- Pooya Hosseinzadeh, MD
- Michael Kelly, MD
- Sandra Klein, MD
- Charles Lawrie, MD
- Scott J. Luhmann, MD
- Matthew J. Matava, MD
- Audrey McAlinden, PhD
- Chris McAndrew, MD
- Mark Miller, MD
- Jeff Neppe, MD
- Regis O’Keefe, MD
- Nathan Olafsen, MD
- Linda Sandell, PhD
- Perry Schoenecker, MD
- Matt Silva, PhD
- Matthew Smith, MD
- Lindley B. Wall, MD
- Rick Wright, MD

Faculty

Department Chair

Regis O’Keefe, MD, PhD

Visit our website for more information about our faculty (http://www.ortho.wustl.edu/content/Patient-Care/2295/Find-a-Physician/Physician-Directory.aspx) and their appointments.

A

Yousef Abu-Amer, PHD, MS
Professor of Orthopaedic Surgery (primary appointment)
Professor of Cell Biology and Physiology
BS Hebrew University 1985
PHD Hebrew University 1993
MS Hebrew University 1987

Muyibat A Adelani, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Vanderbilt University 2008

Alexander William Aleem, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
BS Johns Hopkins University 2006
MD Washington Univ in St. Louis 2010

B

Jonathon David Backus, MD
Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)
BS University of Urbana IL 2005
MD Duke University 2010

Robert L Barrack, MD
Charles F and Joanne Knight Distinguished Professor of Orthopaedic Surgery (primary appointment)
MD Vanderbilt University 1980

Donald R Bassman, MD
Instructor in Clinical Orthopaedic Surgery (primary appointment)
BA Washington Univ in St. Louis 1971
MD Washington Univ in St. Louis 1975

Marschall Brantling Berkes, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Vanderbilt University 2008

Terra Rupert Blatnik, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
BS Allegheny College 2003
MD Case Western Reserve Univ 2007

Ljiljana Bogunovic, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Cornell University 2009

Martin I Boyer, MS, MD
Carol B and Jerome T Loeb Professor of Orthopaedic Surgery (primary appointment)
MS University of Toronto 1993
MD University of Toronto 1988

Keith Happ Bridwell, MD
J Albert Key Distinguished Professor of Orthopaedic Surgery (primary appointment)
Professor of Neurological Surgery
BA Washington Univ in St. Louis 1973
MD Washington Univ in St. Louis 1977

David Micah Brogan, MS, BE, MD, MS1
Assistant Professor of Orthopaedic Surgery (primary appointment)
MS University College London 2004
BE Vanderbilt University 2003
MD Washington Univ in St. Louis 2009
MS1 University of London 2005

Robert Henry Brophy IV, MD, MS
Professor of Orthopaedic Surgery (primary appointment)
BA Stanford University 1994
MD Washington Univ in St. Louis 2001
MS Stanford University 1995
BS Stanford University 1994

Jacob M Buchowski, MS, MD
Lawrence G and Elizabeth A Lenke Distinguished Professor of Orthopaedic Surgery (primary appointment)
Professor of Neurological Surgery
MS Yale University 1996
MD Johns Hopkins University 2000
BS Yale University 1996

C

Ryan Patrick Calfee, MD

Associate Professor of Orthopaedic Surgery (primary appointment)
MD Washington Univ in St. Louis 2001
BS University of Virginia 1997

Eric Ward Carson, MD
Associate Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)
BS Tufts University 1982
MD University of Illinois Chicago 1989

Aaron Mark Chamberlain, MD, B MUS
 Associate Professor of Orthopaedic Surgery (primary appointment)
MD University of CA San Francisco 2006
B MUS University of Utah 2002

Abby Ling Lee Cheng, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Washington Univ in St. Louis 2013

Cara Alessandra Cipriano, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
BS Williams College 2003
MD University of Pennsylvania 2007

John C Clohisy, MD
Daniel C. and Betty B. Viehmann Distinguished Professor of Orthopaedic Surgery (primary appointment)
MD Northwestern University 1989
BA Northwestern University 1985

Berdael S. Colorado, MS, DOST
Assistant Professor of Orthopaedic Surgery (primary appointment)
Assistant Professor of Neurology
BS University of Iowa 2004
MS Des Moines University 2009
DOST Des Moines University 2009

Laura C DePalma, DOST
Assistant Professor of Orthopaedic Surgery (primary appointment)
DOST Phil Coll of Osteopathic Med 2009

Matthew Barrett Dobbs, MD
Dr Asa C and Mrs Dorothy W Jones Professorship in Orthopaedic Surgery (primary appointment)
BS University of Notre Dame 1991
MD University of Iowa 1995

Christopher J. Dy, MD, M PH
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD University of Miami 2008
BS University of Miami 2004
M PH University of Miami 2008

E

Kelly Eileen Estes, MD, MS, MPH
Assistant Professor of Orthopaedic Surgery (primary appointment)
Assistant Professor of Emergency Medicine in Medicine
BS Kalamazoo College 2005
MD Wright State University 2012
MS Columbia University 2016
MPH Wright State University 2012

Lawrence Glennon Evans Jr
Instructor in Orthopaedic Surgery (primary appointment)

F

Roberta Faccio, PHD
Professor of Orthopaedic Surgery (primary appointment)
Professor of Cell Biology and Physiology
PHD University of Bari 2000

G

Richard H Gelberman, MD
Professor of Orthopaedic Surgery (primary appointment)
MD University of Tennessee 1969
BA University of North Carolina 1965

Charles A Goldfarb, MD
Professor of Orthopaedic Surgery (primary appointment)
BA Williams College 1992
MD University of Alabama 1996

J. Eric Gordon, MD
Professor of Orthopaedic Surgery (primary appointment)
BS University of California 1983
MD University of CA Davis 1988

Farshid Guilak, MS, PHD, MPH
Professor of Orthopaedic Surgery (primary appointment)
Professor of Biomedical Engineering
Professor of Developmental Biology
MS Rensselaer Poly Institute 1987
PHD Columbia University 1992
BS Rensselaer Poly Institute 1985
MPH Columbia University 1990

Munish C Gupta, MD
Mildred B. Simon Distinguished Professor of Orthopaedic Surgery (primary appointment)
BS Northwestern University 1982
MD Northwestern University Med 1986

Mark E. Halstead, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Pediatrics

MD Univ of Wisconsin Madison 1998
BS Univ of Wisconsin Madison 1994

Jeremy A Hartman, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Saint Louis University 2013

Damon Joseph Louis Hays, MD
Instructor in Clinical Orthopaedic Surgery (primary appointment)
MD Ohio University 2003
BS Truman State University 1998

Pooya Hosseinzadeh, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Isfahan U of Medical Sciences 2004

Devyani M. Hunt, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Neurology
MD University of Texas Houston 2000
BS University of Texas Austin 1995

J

Jeffrey E Johnson, MD
Professor of Orthopaedic Surgery (primary appointment)
MD Georgetown University 1980
BA Duke University 1976

K

Jay Donovan Keener, MD
Professor of Orthopaedic Surgery (primary appointment)
BS West Virginia University 1991
MD West Virginia University 1998

Brian Adams Kelly, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
Assistant Professor of Neurological Surgery
BA Williams College 2002
MD Columbia University 2009

Michael Patrick Kelly, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Neurological Surgery
BS Boston College 1999
MD University of Massachusetts 2005

Sandra E. Klein, BE, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
BE University of Missouri 1994
MD Washington Univ in St. Louis 2001

Robert S Kramer, MD
Instructor in Clinical Orthopaedic Surgery (primary appointment)
Adam J. LaBore, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Neurology
BS Louisiana College 1994
MD Loyola University Chicago 1998

Charles Murray Lawrie, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Baylor College of Medicine 2012

Scott J Luhmann, MD
Professor of Orthopaedic Surgery (primary appointment)
Professor of Neurological Surgery
MD University of Minnesota 1991
BA Gustavus Adolphus College 1986

Paul Sherman Lux, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
MD Tulane University 1983

Jeffrey Wackher Martin, MD
Associate Professor in Orthopaedic Surgery (primary appointment)
MD Case Western Reserve Univ 1981

Matthew J Matava, MD
Professor of Orthopaedic Surgery (primary appointment)
Professor of Physical Therapy
BA University of MO Kansas City 1986
MD University of MO Kansas City 1987

Audrey McAlinden, PHD
Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Cell Biology and Physiology
PHD University of London 1998

Christopher M McAndrew, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
MD University of Tennessee 2004

Sarah Howe McBride, MS, PHD
Adjunct Instructor in Orthopaedic Surgery (primary appointment)
BS Clemson University 2004
MS Case Western Reserve Univ 2008
PHD Case Western Reserve Univ 2011

Jeremy James McCormick, MD
Associate Professor of Orthopaedic Surgery (primary appointment)

Douglas J. McDonald, MD
Professor of Orthopaedic Surgery (primary appointment)
MD University of Minnesota 1982
BS St Johns University 1978

John P Metzler, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Neurology
MD University of Texas Galveston 1995
BS Texas A&M University 1991

Laura L Meyers, MD
Associate Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)
BS Washington Univ in St. Louis 1988
MD Vanderbilt University 1993

Anna Noel Miller, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
MD Baylor University 2005
BA Rice University 2001

Gary Arthur Miller, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
MD Jefferson Medical College 1977
BA University of Chicago 1973

Mark L. Miller, MD, BE
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Harvard University 2008
BE Stanford University 2004

Jeffrey Jerome Neppe, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Washington Univ in St. Louis 2007
BS Truman State University 2003

Ryan M. Nunley, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
MD University of North Carolina 2002
BA Vanderbilt University 1998

Regis James O'Keefe, MD, PHD
Fred C Reynolds Professor of Orthopaedic Surgery (primary appointment)
Head of the Department of Orthopaedic Surgery
MD Harvard University 1985
BA Yale University 1981
PHD University of Rochester 2000

Nathan P Olafsen, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
Assistant Professor of Neurology
MD University of MO Columbia 2012

Cecilia Pascual Garrido, MD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Universidad del Buenos Aires 2000

Debabrata Patra, MS, PHD
Associate Professor of Orthopaedic Surgery (primary appointment)
MS University of Bombay 2005
BS University of Bombay 1985
PHD University of Pittsburgh 1993

Terrence L Piper, MD
Assistant Professor of Clinical Orthopaedic Surgery (primary appointment)
BA Saint Louis University 1971
MD Saint Louis University 1975

Heidi Prather, DOST
Professor of Orthopaedic Surgery (primary appointment)
Professor of Neurology
DOST Univ of Health Sciences KC 1991
BA Drury College 1987

Muhammad Farooq Rai, PHD
Assistant Professor of Orthopaedic Surgery (primary appointment)
PHD Freie University 2008

Elizabeth Yanik Rowlands, MD, PHD
Assistant Professor of Orthopaedic Surgery (primary appointment)
MD Johns Hopkins University 2009
PHD University of North Carolina 2013
BS University of Maryland 2007

Perry Lee Schoenecker, MD
Professor of Orthopaedic Surgery (primary appointment)
BS Univ of Wisconsin Madison 1964
MD Univ of Wisconsin Madison 1968

Hua Shen, MS, MD, PHD
Instructor in Orthopaedic Surgery (primary appointment)
MS Chinese Academy of Med Science 1996
MD Capital U of Medical Sciences 1991
Rick Wayne Wright, MD
Jerome J Gilden MD Distinguished Professor of Orthopaedic Surgery (primary appointment)
MD University of Missouri 1988
BS University of Missouri 1984

Y
Ken Yamaguchi, MS, MD
Professor of Orthopaedic Surgery (primary appointment)
BA University of California 1983
MS University of California 1985
MD George Washington University 1989

Z
Lukas P Zebala, MD
Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Neurological Surgery
BS Northwestern University 1998
MD University of Chicago 2004

Courses

M96 Ortho 801A Orthopedic Surgery Subinternship — Sports
This clinical elective is available for four weeks during which the student participates in orthopedic conferences, outpatient clinics, surgical cases, and patient rounds on the Sports Medicine service.

M96 Ortho 801B Orthopedic Surgery Subinternship — Sports
This clinical elective is available for four weeks during which the student participates in orthopedic conferences, outpatient clinics, surgical cases, and patient rounds on the Sports Medicine service.

M96 Ortho 801C Orthopedic Surgery Subinternship — Sports
This clinical elective is available for four weeks during which the student participates in orthopedic conferences, outpatient clinics, surgical cases, and patient rounds on the Sports Medicine service.

M96 Ortho 810A Orthopedic Surgery Subinternship — Foot/Ankle
This four-week clinical elective is available to medical students looking to further their knowledge of and experience in orthopedics, 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.

M96 Ortho 810B Orthopedic Surgery Subinternship — Foot/Ankle
This four-week clinical elective is available to medical students looking to further their knowledge of and experience in orthopedics, 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.

M96 Ortho 820B Orthopedic Surgery Subinternship — Hand
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 orthopedic conferences, and dissection of upper-extremity anatomical specimens.

M96 Ortho 823A Orthopedic Surgery Subinternship — Hand/Pediatric Hand
Clinical elective available during which time the student will work with attending surgeons, primarily at Barnes-Jewish Hospital, St. Louis Children’s Hospital, and Shriners’ 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 faculty clinic office hours, attendance at orthopedic conferences, and dissection of upper-extremity anatomical specimens.

M96 Ortho 823B Orthopedic Surgery Subinternship — Hand/Pediatric Hand
Clinical elective available during which time the student will work with attending surgeons, primarily at St. Louis Children’s Hospital; Shriners’ 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 orthopedic conferences, and dissection of upper-extremity anatomical specimens.

M96 Ortho 825A Orthopedic Surgery Subinternship — Hand/Nerve
Clinical elective available during which time the student will work with attending surgeons, primarily at Barnes-Jewish Hospital, St. Louis Children’s Hospital, and Washington University Orthopedics at Center for Advanced Medicine and South County. The service includes care of adult and pediatric patients with traumatic, sports (arthroscopy), nerve, and degenerative disease. The rotation will cover general hand surgery as well
as brachial plexus and peripheral nerve surgery. Activities will include participation in outpatient procedures, attendance at faculty clinic office hours, and attendance at orthopedic conferences.

M96 Ortho 827A Orthopedic Surgery Subinternship — Hand/Microsurgery
Clinical elective available during which time the student will work with attending surgeons, primarily at Barnes-Jewish Hospital, Center for Advanced Medicine, and the Chesterfield office. The service includes care of adult and pediatric 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 orthopedic conferences.

M96 Ortho 830A Orthopedic Surgery Subinternship — Shoulder/Elbow
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 orthopedic conferences, and dissection of upper-extremity anatomical specimens.

M96 Ortho 840A Orthopedic Surgery Subinternship — Trauma
Clinical elective available for a four-week period during which time the student will work in orthopedic trauma at Barnes-Jewish Hospital. The student will work with a team of attendings, residents, physician assistants, and nurse practitioners to provide care for orthopedic trauma patients. Activities include participation in the care of hospitalized inpatients, inpatient surgical procedures, outpatient office visits, and daily conferences.

M96 Ortho 850A Orthopedic Surgery Subinternship — Pediatrics
Clinical elective available for four weeks during which time the student will work with attending surgeons, primarily at St. Louis Children's Hospital. The student will work with attending surgeons, primarily at Barnes-Jewish Hospital, observing and assisting with outpatient and inpatient care. Activities in the operating room, emergency room, and outpatient clinics are to be included. Attendance at and participation in the weekly pediatric orthopedic conference activities are required.

M96 Ortho 850B Orthopedic Surgery Subinternship — Pediatrics
Clinical elective available for four weeks during which time the student will work with attending surgeons, primarily at St. Louis Children's Hospital, observing and assisting with outpatient and inpatient care. Activities in the operating room, emergency room, and outpatient clinics are to be included. Attendance at and participation in the weekly pediatric orthopedic conference activities are required.

M96 Ortho 860A Orthopedic Surgery Subinternship — Spine
This clinical elective is available for four weeks during which time the student will work with attending surgeons, primarily at Barnes-Jewish Hospital, observing and assisting when appropriate in outpatient and inpatient care. Activities in the operating room, emergency room, and outpatient clinics are to be included. Attendance at and participation in the weekly orthopedic conference activities are required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

M96 Ortho 860B Orthopedic Surgery Subinternship — Spine
This clinical elective is available for four weeks during which time the student will work with attending surgeons, primarily at Barnes-Jewish Hospital, observing and assisting when appropriate in outpatient and inpatient care. Activities in the operating room, emergency room, and outpatient clinics are to be included. Attendance at and participation in the weekly orthopedic conference activities are required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

M96 Ortho 860C Orthopedic Surgery Subinternship — Spine
This clinical elective is available for four weeks during which time the student will work with attending surgeons, primarily at Barnes-Jewish Hospital, Barnes-Jewish West County Hospital, and Washington University Orthopedics - Center for Advanced Medicine observing and assisting when appropriate in outpatient and inpatient care. Activities in the operating room, emergency room, and outpatient clinics are to be included. Attendance at and participation in the weekly orthopedic conference activities are required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

M96 Ortho 863A Orthopedic Surgery Subinternship — Pediatric Spine
Clinical elective available for four weeks during which time the student will work with attending surgeons, primarily at St. Louis Children's Hospital, observing and assisting in outpatient and inpatient care. Activities in the operating room, emergency room, and outpatient clinics are to be included. Attendance at and participation in the weekly pediatric orthopedic conference activities are required.

M96 Ortho 863B Orthopedic Surgery Subinternship — Pediatric Spine
Clinical elective available for four weeks during which time the student will work with attending surgeons, primarily at St. Louis Children's Hospital, observing and assisting in outpatient and inpatient care. Activities in the operating room, emergency room, and outpatient clinics are to be included. Attendance at and participation in the weekly pediatric orthopedic conference activities are required.

M96 Ortho 870A Orthopedic Surgery Subinternship — Joint Preservation & Reconstruction
Clinical elective available during which time the student will work with attending physicians on the Adult Reconstruction and Joint Preservation/Replacement service. This rotation is primarily centered at Barnes-Jewish Hospital and includes care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopedic educational conferences and anatomy sessions.
M96 Ortho 870B Orthopedic Surgery Subinternship — Joint Preservation & Reconstruction
Clinical elective available during which time the student will work with attending physicians 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, participation in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopedic educational conferences and anatomy sessions.

M96 Ortho 870C Orthopedic Surgery Subinternship — Joint Preservation & Reconstruction
Clinical elective available during which time the student will work with attending physicians 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, participation in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopedic educational conferences and anatomy sessions.

M96 Ortho 875A Orthopedic Surgery Subinternship — Joint Reconstruction
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, participation in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopedic educational conferences and anatomy sessions.

M96 Ortho 880A Orthopedic Surgery Subinternship — Oncology/Joint Reconstruction
Clinical elective available for four weeks, during which time the student will work with the attending physicians on the Musculoskeletal Oncology service. The student will participate in orthopedic conferences, outpatient clinics, surgical cases and patient rounds.

M96 Ortho 880B Orthopedic Surgery Subinternship — Oncology/Joint Reconstruction
Clinical elective available for four weeks, during which time the student will work with the attending physicians on the Musculoskeletal Oncology service. The student will participate in orthopedic conferences, outpatient clinics, surgical cases and patient rounds.

M96 Ortho 890 Orthopedic Surgery Externship
Students rotate on Orthopaedic Services in four-week blocks. During their rotations, students are assigned to two different services for two weeks each. Students may rotate on a variety of subspecialties, including trauma sports medicine, hand and upper extremity, foot and ankle, musculoskeletal oncology, adult reconstructive surgery, pediatric orthopaedics, shoulder and elbow, and spine.