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 (http://bulletin.wustl.edu/medicine/degrees) 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 Callie, 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 Nepple, 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

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Dr J Albert Key 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 (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  

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Assistant Professor of Orthopaedic Surgery (primary appointment)  
MD Vanderbilt University 2008  

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

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

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

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

David Micah Brogan, BE, MS, MD, MS1  
Assistant Professor of Orthopaedic Surgery (primary appointment)  
BE Vanderbilt University 2003  
MS University College London 2004  
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  
BS Stanford University 1994  
MS Stanford University 1995  

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

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  
Professor of Orthopaedic Surgery (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  

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Assistant Professor of Surgery (Public Health Sciences)  
MD Washington Univ in St. Louis 2013  

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

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BA Northwestern University 1985  
MD Northwestern University 1989  

Berdale S. Colorado, MS, DOST  
Assistant Professor of Orthopaedic Surgery (primary appointment)  
Assistant Professor of Neurology  
MS Des Moines University 2009  
BS University of Iowa 2004  
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Assistant Professor of Orthopaedic Surgery (primary appointment)  
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MD American Univ of the Caribbean 2014  

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DOST Phil Coll of Osteopathic Med 2009  

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M PH University of Miami 2008
MD University of Miami 2008
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BS Kalamazoo College 2005
MPH Wright State University 2012
MS Columbia University 2016
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MD University of Tennessee 1969
BA University of North Carolina 1965

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MD University of CA Davis 1988

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Professor of Biomedical Engineering
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MPH Columbia University 1990
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MS Rensselaer Poly Institute 1987

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MD Northwestern University Med 1986

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

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MD Saint Louis University 2013

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MD Ohio University 2003
BS Truman State University 1998

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MD Isfahan U of Medical Sciences 2004

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Associate Professor of Neurology
MD University of Texas Houston 2000
BS University of Texas Austin 1995

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MD Georgetown University 1980

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MD Washington Univ in St. Louis 2001
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BA Gustavus Adolphus College 1986
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MD University of Tennessee 2004

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BS Clemson University 2004
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BS Dartmouth College 1999
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BS St Johns University 1978
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MD Jefferson Medical College 1977
BA University of Chicago 1973

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BA Yale University 1981  
PHD University of Rochester 2000  
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Assistant Professor of Neurology  
MD University of MO Columbia 2012

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MD Universidad del Buenos Aires 2000

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BS University of Bombay 1985  
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BA Saint Louis University 1971  
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Professor of Neurology  
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PHD University of North Carolina 2013  
SCM Johns Hopkins University 2009  
BS University of Maryland 2007

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Professor of Orthopaedic Surgery (primary appointment)  
BS Univ of Wisconsin Madison 1964  
MD Univ of Wisconsin Madison 1968

Girdhar G Sharma, MS1, PHD1, BS1  
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MS1 Banaras Hindu University 1992  
PHD1 Banaras Hindu University 2000  
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Instructor in Orthopaedic Surgery (primary appointment)  
MD Capital U of Medical Sciences 1991  
PHD University of Konstanz 2002  
MS Chinese Academy of Med Science 1996

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BS Nanjing University 2005  
MS University of Rochester 2011  
PHD University of Rochester 2012

Matthew J Silva, ME, PHD  
Julia and Walter R Peterson Professor of Orthopaedic Research (primary appointment)  
Assistant Professor of Biomedical Engineering  
ME Cornell University 1984  
BS Cornell University 1982  
PHD Mass Inst of Technology (MIT) 1996

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Assistant Professor of Orthoepacic Surgery (primary appointment)  
Assistant Professor of Neurology  
MD University of Rochester 2010  
BA Columbia University 2005

Matthew Vernon Smith, MD  
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MD Virginia Comm University 2002

Gaurav Swarnkar, PHD  
Instructor in Orthopaedic Surgery (primary appointment)
PHD CENTRAL DRUG RESEARCH INSTITUTE 2011

T

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Associate Professor of Orthopaedic Surgery (primary appointment)
Associate Professor of Neurology
MD University of North Carolina 2004

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MS Rensselaer Poly Institute 2005
BS University of CA Berkeley 2003
PHD Rensselaer Poly Institute 2007

W

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Associate Professor of Orthopaedic Surgery (primary appointment)
MD Washington Univ in St. Louis 2006
BS Duke University 2002

Chia-Lung Wu, AS, PHD, MS
Instructor in Orthopaedic Surgery (primary appointment)
AS National Taipei University 1999
BS National Taipei University 2001
PHD Duke University 2015
MS National Taiwan University 2005

Y

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

Z

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

Courses
Visit online course listings to view offerings for M96 Ortho.

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 820A Orthopedic Surgery Subinternship — Hand
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 orthopedic conferences.

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 Shriner’s Hospital. The service includes care of adult and pediatric patients with congenital, traumatic, sports (arthroscopy), nerve, and degenerative disease.
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; Shriner'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 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 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 850B Orthopedic Surgery Subinternship — Pediatrics
This clinical elective is 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 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 860A Orthopedic Surgery Subinternship — Spine
Clinical elective available for four weeks during which 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 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 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.