

2018-2019 **USC** ORTHOPAEDIC SURGERY RESIDENCY PROGRAM



<http://keck.usc.edu/orthopaedic-surgery/training-education/residency-program/>



Jay R. Lieberman, M.D.
Professor and Chairman



Daniel A. Oakes, M.D.
Associate Professor
Residency Program
Director



Reza Omid, M.D.
Associate Professor
Associate Program
Director

**2018-2019
Administrative Chief
Residents**
Ali Azad, M.D.
Anthony Essilfie, M.D.

Overview

The University of Southern California Orthopaedic Surgery Residency Program provides graduate training in all aspects of the specialty, including adult reconstruction, foot and ankle surgery, hand and upper extremity surgery, sports medicine, shoulder and elbow surgery, spine surgery, orthopaedic oncology, and orthopaedic trauma. It is a fully-accredited five-year program and meets all requirements of the American Board of Orthopaedic Surgery. All residency positions are filled through the National Residency Matching Program.

Application

The residency program draws upon the best resources of five affiliated institutions in the Los Angeles metropolitan area to provide a broad, well-balanced educational experience. The faculty consists of over 30 full-time clinical and research specialists in all areas of orthopaedic surgery. In addition, our dedicated voluntary faculty also contribute to resident education, many of which are former USC residents. Each faculty member brings expertise in his or her specialized area through participation in teaching rounds, instruction in clinics and surgery, formal teaching conferences, and research.

All residency positions are filled through the National Residency Matching Program (NRMP) and our department participates in the Electronic Residency Application Service (ERAS). Documents presented outside of ERAS will not be considered.

Our requirements for application include:

- Completed ERAS application
- Medical school transcript
- Personal statement
- Scores from Part I and Part II (if taken) from the United States Medical Licensing Exam (USMLE), National Board of Medical Examiners (NBME), Federation Licensing Examination (FLEX), or Comprehensive Osteopathic Medical Licensing Examination (COMLEX)
- Dean's letter
- Three **narrative** letters of recommendation completed by physicians, with at least one letter from an orthopaedic surgeon

NOTE: *A maximum of four letters of recommendation will be accepted, inclusive of the Dean's letter. Narrative letters must be submitted with the American Orthopaedic Association Standardized Letter of Recommendation Form as a singular document.* For further information and application materials, please contact your Dean's Office at your home institution. Foreign medical students should apply through the Education Commission for Foreign Medical Graduate Services (ECFMG). Applicant eligibility, application process, visa information, negotiated salaries, sample appointment offer, and physician conditions of appointment agreement can be found at:

<http://dhs.lacounty.gov/wps/portal/dhs/lacusc/>

**SPECIAL THANKS TO OUR ADMINISTRATIVE CHIEFS
DR. ALI AZAD & DR. ANTHONY ESSILFIE
FOR THEIR OUTSTANDING CONTRIBUTIONS DURING
THIS ACADEMIC YEAR.**



Training Institutions



Keck Medical Center of USC

Keck Hospital, formerly USC University Hospital, is the headquarters for the private practice inpatient activities of the USC medical faculty. The 411-bed hospital is best described as a specialty teaching hospital, where residents are exposed to all aspects of adult orthopaedic surgery. The Department of Orthopaedic Surgery has established Centers of Excellence, including the Joint Preservation and Replacement Center, the Sports Medicine Center, the Comprehensive Spine Center, and the Musculoskeletal Oncology Center.



Los Angeles County + University of Southern California Medical Center

LAC+USC Medical Center is one of the largest teaching centers in the world, with over 700 beds, greater than 3,000 yearly orthopaedic admissions and more than 50,000 orthopaedic outpatient visits. This large and diverse patient population affords the residents a wide range of clinical problems to evaluate and treat, provides significant hands-on experience in both operative and non-operative aspects of orthopaedic surgery, and offers a wealth of material for clinical research.

Children's Hospital Los Angeles



Children's Hospital of Los Angeles (CHLA) is one of the nation's leading pediatric hospitals and the only Level I pediatric trauma center in Los Angeles. CHLA provides the opportunity for the residents to work with experienced pediatric orthopaedic surgeons and gain expertise in neuromuscular, congenital, developmental, and traumatic conditions in children. An active gait laboratory, for both clinical and research purposes, is located in the hospital.



Rancho Los Amigos Medical Center

Rancho Los Amigos Medical Center is a 245-bed nationally renowned rehabilitation facility in Downey, CA, approximately 20 minutes from the main USC campus, with 556 adult orthopaedic admissions and 7,600 adult outpatient orthopaedic clinic visits annually. Residents rotate through Rancho during their PGY-2 and again during their PGY-4 on the Total Joint Replacement Service. Rehabilitation management is incorporated in all services. Rancho Los Amigos Hospital houses a world-renown Pathokinesiology Laboratory which evaluates patients with acquired and traumatic neuromuscular disorders.

Kaiser Permanente Baldwin Park

The Baldwin Park Medical Center offers a full range of outpatient care as well as 24-hour urgent care services. Residents gain exposure to both inpatient and outpatient care of a variety of orthopaedic problems in a community hospital setting. The focus of this rotation will be on the development of arthroscopic skills.





Faculty



Joint Preservation and Replacement

Lawrence D. Dorr, M.D.

Professor of Clinical Orthopaedic Surgery
Adult Reconstruction
Keck Hospital of **USC**

Paul K. Gilbert, M.D.

Clinical Assistant Professor of
Orthopaedic Surgery
Adult Reconstruction
Keck Hospital of **USC**

Jay R. Lieberman, M.D.

Professor and Chairman
Professor of Orthopaedic Surgery
Adult Reconstruction
Keck Hospital of **USC**

Donald B. Longjohn, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Section Chief, Surgical Arthritis Service,
Rancho Los Amigos National
Rehabilitation Center
Keck Hospital of **USC**

Daniel A. Oakes, M.D.

Associate Professor of Clinical
Orthopaedic Surgery
Section Chief, Adult Reconstruction,
Keck Hospital of **USC**

Foot and Ankle

Geoffrey M. Miller, M.D.

Clinical Associate Professor of
Orthopaedic Surgery
LAC+**USC** Medical Center

Eric W. Tan, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**
LAC+**USC** Medical Center

James C. Wang, DPM

Assistant Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**

Hand & Upper Extremity

Stewart Brown, M.D.

Clinical Professor of Orthopaedic Surgery
LAC+**USC** Medical Center

Alidad Ghiassi, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Section Chief, Hand Service
LAC+**USC** Medical Center
Keck Hospital of **USC**

Rachel Lefebvre, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**

Hand & Upper Extremity

(continued)

Amir Mostofi, M.D.

Clinical Assistant Professor of
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Keck Hospital of **USC**

Milan Stevanovic, M.D., Ph.D.

Professor of Orthopaedic Surgery
Program Director, **USC**/Joseph H. Boyes
Hand Fellowship
Service Chief, Hand Service
Keck Hospital of **USC**
LAC+**USC** Medical Center

Orthopaedic Oncology

Elke R. Ahlmann, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Section Chief, Orthopaedic Oncology
Service
LAC+**USC** Medical Center

Lawrence R. Menendez, M.D.

Professor of Clinical Orthopaedic Surgery
Section Chief, Orthopaedic Oncology
Keck Hospital of **USC**

Orthopaedic Trauma

Elke R. Ahlmann, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Director of Orthopaedic Surgery Quality
Improvement
LAC+**USC** Medical Center

Orthopaedic Trauma

(continued)

Mark Fleming, D.O.

Captain, MC (FS/FMF), U.S. Navy
Orthopaedic Traumatologist
Navy Trauma Training Center
LAC+**USC** Medical Center

Adam Lee, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**
LAC+**USC** Medical Center

Jackson Lee, M.D.

Associate Professor of Clinical
Orthopaedic Surgery
Chief of Orthopaedic Trauma Section,
LAC+**USC** Medical Center
Fellowship Co-Director, Orthopaedic
Trauma Fellowship

Geoffrey Marecek, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**
LAC+**USC** Medical Center
Fellowship Co-Director, Orthopaedic
Trauma Fellowship

Lane E. Shepherd, M.D.

Associate Professor of Clinical
Orthopaedic Surgery
LAC+**USC** Medical Center

Charalampos Zalavras, M.D., Ph.D., F.A.C.S.

Professor of Clinical Orthopaedic Surgery
Director of Orthopaedic Resident
Research
LAC+**USC** Medical Center

Pediatric Orthopaedics

Lindsay Andras, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Children's Hospital Los Angeles

Melissa Bent M.D.

Assistant Professor of Clinical
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Bianca Edison, M.D., M.S.

Assistant Professor of Clinical
Orthopaedic Surgery
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Rachel Goldstein, M.D.

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Anita Herrera Hamilton, Ph.D., ABPP-CN

Assistant Clinical Professor of
Orthopaedic Surgery
Director, Neuropsychology Program
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Robert M. Kay, M.D.

Professor of Clinical Orthopaedic Surgery
Vice-Chief, Children's Orthopaedic Center
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Ryan Kelln, DO, FAAP

Assistant Professor of Clinical
Orthopaedic Surgery
Children's Hospital Los Angeles

Pediatric Orthopaedics

(continued)

Juliann Kwak Lee, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Section Chief, Pediatric Orthopaedics
LAC+**USC** Medical Center

Nina R. Lightdale-Miric, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Children's Hospital Los Angeles

David L. Skaggs, M.D.

Professor and Chief of
Clinical Orthopaedic Surgery
Director of Scoliosis and Spinal Deformity
Endowed Chair of Pediatric Spinal
Disorders
Children's Hospital Los Angeles

Milan Stevanovic, M.D., Ph.D.

Professor of Orthopaedic Surgery
Program Director, **USC**/Joseph H. Boyes
Hand Fellowship
Service Chief, Hand Service
Keck Hospital of **USC**
LAC+**USC** Medical Center
Children's Hospital Los Angeles

Vernon T. Tolo, M.D.

John C. Wilson, Jr. Professor of Orthopaedics
Chief Emeritus, Children's Orthopaedic Center
Editor-in-Chief, *Journal of Bone and Joint Surgery*
Past President, American Academy of
Orthopaedic Surgeons
Children's Hospital Los Angeles

Pediatric Orthopaedics

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Curtis VandenBerg, M.D.

Assistant Professor of
Clinical Orthopaedic Surgery
Children's Hospital Los Angeles

Tracy Zaslow, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Children's Hospital Los Angeles

Research

Denis Evseenko, M.D., PhD

Associate Professor of Orthopaedic
Surgery
Stem Cell Research and Regenerative
Medicine
Director, Skeletal Regeneration Program
Keck School of Medicine of **USC**

Baruch Frenkel, D.M.D., Ph.D.

Professor of Orthopaedic Surgery and
Biochemistry & Molecular Biology
J. Harold and Edna L. LaBriola Chair in Genetic
Orthopaedics
Director, Research and Scientific Affairs
Keck School of Medicine of **USC**

Thay Q. Lee, Ph.D.

Research Professor
Director, Long Beach Orthopaedic
Biomechanics Laboratory

Tishya Wren, Ph.D.

Associate Professor of Research
Orthopaedics, Radiology, and Biomedical
Engineering
Children's Hospital Los Angeles

Spine

Raymond J. Hah, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**

Christopher C. Ornelas, M.D

Assistant Professor of Clinical
Orthopaedic Surgery
Chief of Spine Medicine
Keck Hospital of **USC**

Mark J. Spoonamore, M.D.

Associate Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**
LAC+**USC** Medical Center

Jeffrey C. Wang, M.D.

Professor of Orthopaedic Surgery and
Neurosurgery
Chief, Orthopaedic Spine Service
Co-Director, **USC** Comprehensive Spine
Center
Keck Hospital of **USC**

Sports Medicine/Shoulder & Elbow

Seth Gamradt, M.D.

Associate Professor of
Clinical Orthopaedic Surgery
Director, Orthopaedic Athletic Medicine
Team Physician, **USC** Athletics
Keck Hospital of **USC**

George F. (Rick) Hatch, III, M.D.

Associate Professor of Clinical
Orthopaedic Surgery
Program Director, **USC** Sports
Medicine Fellowship Program
Team Physician, **USC** Athletics
Keck Hospital of **USC**

Reza Omid, M.D.

Associate Professor of Clinical
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Associate Program Director
Team Physician, **USC** Athletics
Keck Hospital of **USC**

James E. Tibone, M.D.

Professor of Clinical Orthopaedic Surgery
Moss Foundation Professorship in
Sports Medicine in Memory of
Dr. Robert K. Kerlan
Head Team Physician, USC Athletics
Keck Hospital of **USC**

C. Thomas Vangsness, Jr., M.D.

Professor of Orthopaedic Surgery
Team Physician, **USC** Athletics
Section Chief, Orthopaedic Sports
Medicine
Keck Hospital of **USC**

Alexander Weber, M.D.

Assistant Professor of Clinical
Orthopaedic Surgery
Keck Hospital of **USC**

USC Epstein Family Center For Sports Medicine

The **USC** Department of Orthopaedic Surgery is pleased to announce the creation of the **USC** Epstein Family Center for Sports Medicine. This generous 10 million dollar gift from the Epstein Family will support clinical activity, education and cutting edge research. The goal is to develop a world class center that will truly advance the care of patients with sports medicine injuries.



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Residency Curriculum



Curriculum is based upon requirements set by the American Board of Orthopaedic Surgery.

Call Schedules

Each rotation develops its own call and rounding schedule. As with all residency training programs at LAC+USC Medical Center, the Department of Orthopaedic Surgery complies with the basic guidelines established by the Office of Graduate Medical Education.

Time Away from Program Duties

In addition to at least one 24-hour period each week, every resident receives a one month paid vacation, 3 days of educational leave, and 12 days of sick leave annually.

INTERNSHIP: POST-GRADUATE YEAR 1 (PGY-1)

The ACGME requires 12 months of general education, which is satisfied in the PGY-1 year. The first year of training is organized into thirteen 28-day rotations in various services relevant to the care of patients. Orthopaedic interns are considered part of the surgical internship pool which consist of 6 general surgery rotations and 6 orthopaedic rotations.

A unique aspect of our program is an intern year generally tailored towards developing and advancing skills expected of an orthopaedic surgery resident. For example, during the Rehabilitation/Amputee service rotation at Rancho Los Amigos Medical Center in Downey, residents learn to manage chronic and debilitating conditions of neurological, congenital, metabolic, infectious, and traumatic origins. They are taught basic prosthetics and orthotics as well as basic principles in rehabilitation. Weekly lectures augment clinical training. By the end of their rotation, residents are expected to be competent in performing basic and complex amputation as well as limb salvage procedures. Residents will also be skilled in the appropriate workup and management of patients with orthopaedic complications due to diabetes, infections, and trauma.

In addition to rotations, interns complete a year long curriculum of modules to develop skills in casting, suturing, basic orthopaedic trauma principles, and joint arthroplasty, amongst other topics. All modules are faculty-taught. In addition, every Friday the PGY-1 residents are freed from clinical duties to attend the Core Curriculum lectures that are the cornerstone of the Department's didactic teaching initiative for the orthopaedic surgery residents. The PGY-1 residents also attend the monthly Journal Club and Grand Rounds.



Year 1 Rotations

Orthopaedic rotations: Oncology, Hand, Trauma (day), Trauma (night), Adult Reconstruction, Rehabilitation/Amputation

General Surgery rotations: General Laparoscopic Surgery, Acute Care Surgery (2 months), Vascular Surgery, Plastic Surgery, Surgical Intensive Care

Vacation (4 weeks)



JUNIOR RESIDENTS: POST-GRADUATE YEARS 2 AND 3 (PGY-2, PGY-3)

The American Board of Orthopaedic Surgery requires all residents to complete 12 months of orthopaedic trauma, 12 months of adult orthopaedics, 6 months of basic science and/or clinical specialties, and 6 months of pediatric orthopaedics. The resident must spend 4 years in a program whose curriculum is determined by an orthopaedic residency director. Rotations are organized to assure increasing responsibility and exposure to all aspects of orthopaedics as residents grow in knowledge, skills, and maturity. As such, the formal residency begins as a PGY-2, and the junior residents follow a two-year track. The total weeks per service over the two year junior resident period are as follow: Trauma – 30 weeks; Sports Medicine – 10 weeks; Adult Reconstruction – 10 weeks; Hand – 10 weeks; Pediatric Orthopaedics at Children’s Hospital Los Angeles – 10 weeks; County Pediatrics and Oncology – 5 weeks; Kaiser General Orthopaedics – 10 weeks; Spine – 5 weeks.

Junior Resident Rotations

Orthopaedic Trauma (30 weeks – 15 weeks each year) – LAC+USC Medical Center

There are two trauma teams on the trauma service. The Saturday “Green Team” call is covered by a PGY-2, PGY-3, and a Senior Resident (PGY4 or PGY-5) from non-trauma services.

The PGY-2 and PGY-3 residents on the trauma teams will learn to evaluate orthopaedic patients and manage acute orthopaedic problems emergently and effectively including pre- and post-operative care of patients. Their responsibilities include evaluating all consults from the emergency department and inpatient wards in addition to operating under the supervision of attending physicians and senior residents. The LAC+USC Medical Center is unique in that it contains a designated Orthopaedic Evaluation Treatment Area (OETA) within the emergency department reserved for patient evaluation and treatment. The junior resident on call is responsible for evaluating and treating patients in the OETA and will perform minor procedures such as fracture manipulation & casting, extensor tendon repairs, traction pin placement, and revision digit amputations. There are numerous highly experienced physician assistants dedicated to this area responsible for assisting the resident with these procedures.

In the trauma outpatient clinic, the junior residents see patients and then present to senior residents and attending physicians who staff the clinic. In addition, residents perform all procedures in the outpatient clinic, including any repeat fracture manipulation, basic hardware removal, or other minor outpatient procedures. The continuity of the trauma experience, from E.D. evaluation through outpatient care, encourages the residents to develop comprehensive plans for fracture management.

Sports Medicine (10 Weeks) – Keck Medical Center of USC and LAC+USC Medical Center

The junior resident gains exposure to basic and complex sports related injuries including workup, diagnosis, operative and non-operative treatment, and rehabilitation. The focus of the rotation is on early and frequent exposure to arthroscopic surgery. Multiple conferences throughout the week provide the framework for the evaluation and treatment of sports medicine patients. This includes working with the USC team orthopaedic surgeons Dr. Vangsness, Dr. Gamradt, Dr. Hatch, Dr. Tibone, Dr. Omid, and Dr. Weber. There are opportunities to attend training room sessions at the USC undergraduate campus. In addition, Dr. Weber leads an exciting new program for local high school football team coverage for those junior residents interested in a team coverage experience supervised by senior residents. Residents take home calls during this service in addition to any “Green Team” call described above.

Adult Reconstruction (10 weeks) – Keck Medical Center

While at Keck Medical Center, a team consisting of a PGY-2, 3, 4, and 5 participate in total joint surgery as well as the clinical management of adult orthopaedic joint conditions. Residents perform numerous total joint replacements as well as receive training in both pre- and post-operative management of joint reconstruction patients. In addition to primary total joint replacement, Junior residents have the opportunity to assist with complex revisions as well as cutting edge procedures like unicompartmental arthroplasty using the MAKO robotic

system. There are weekly conferences and didactics led by attendings. Residents take home calls during this service in addition to any “Green Team” call described above.

Hand and Upper Extremity (10 Weeks) – LAC+USC Medical Center and Keck Medical Center

This service consists of a PGY-2, PGY-3, PGY-4 or PGY-5, plastic surgery senior resident, and hand fellow. The residents participate in surgery at LAC+USC Medical Center, as well as Keck Medical Center. This rotation provides residents with comprehensive training in all aspects of hand surgery, including acute trauma, congenital, reconstructive, and micro-vascular surgery of the hand. LAC+USC Medical Center is a major center for upper extremity revascularization and replant procedures, which provides an excellent experience for residents who assist with nearly all of these cases. Residents share home call for replantation cases, however do not take in-house call while on this service unless they are scheduled for “Green Team” calls. There are weekly didactics and monthly mortality and morbidity conferences.

Pediatric Orthopaedic Surgery (10 Weeks) – Children’s Hospital Los Angeles

This service is located at Children’s Hospital Los Angeles, one of the nation’s leading pediatric orthopaedic centers. The team consists of two USC junior residents (PGY-2 and PGY-3), a USC senior resident (PGY-4 or PGY-5), one Cedars Sinai resident and one Harbor-UCLA resident. During this rotation, residents gain exposure to acquired, congenital, developmental, oncologic and traumatic orthopaedic conditions in children through surgery and outpatient clinics. Daily morning lectures from attending physicians focus on key concepts within pediatric orthopaedic surgery, and provide excellent preparation for the annual Orthopaedic Surgery In-Training examination (OITE). There are also weekly staff conferences designed to review all pre- and post-operative cases, a monthly journal club, as well as a monthly morbidity and mortality conference. Residents take in-house call approximately once per week throughout their time on service.

Pediatric Orthopaedic Surgery and Orthopaedic Oncology (5 weeks) – LAC+USC Medical Center

Junior residents are paired with a senior resident and collectively cover the pediatric and oncology services at LAC+USC. There are daily didactics with the pediatrics or oncology attendings. Also, one day per week is dedicated to Pediatric Sports, with clinic in the morning and surgery in the afternoon. Residents will have no call except for “Green Team” call as detailed above.

General Orthopaedic Surgery (10 Weeks) – Kaiser Permanente Baldwin Park

The PGY-2 and PGY-3 on service experience a comprehensive adult orthopaedic practice, with exposure to a broad range of subspecialties, including arthroscopic, oncologic, reconstructive, traumatic, and hand surgery cases. In addition, they are frequently able to attend the AO Basic Principles of Fracture Management course during this rotation. Residents take two in-house calls during this 10 week service.

Spine (5 weeks) – Keck Medical Center and LAC+USC Medical Center

The junior resident on this service splits their time between the LAC+USC Medical Center and the Keck Medical Center. During this time, the resident will gain exposure through surgery, inpatient care and out-patient services. Multiple conferences are held on a weekly basis designed to discuss core concepts in orthopaedic spine as well as reviewing radiographs, MRI, CT, and other diagnostic modalities. Residents will have home call responsibilities for Keck Medical Center and may additionally have “Green Team” call during this rotation.



SENIOR RESIDENTS: POST-GRADUATE YEARS 4 AND 5 (PGY-4 AND PGY-5)

The senior years of residency training are designed to continue to expand on orthopaedic knowledge and surgical skills as well as to prepare the resident for supervisory and teaching roles. Residents are given graduated responsibility to be more active and independent in patient care decisions.

Senior Resident Rotations

Orthopaedic Trauma (30 weeks – 15 weeks each year) – LAC+USC Medical Center

The fourth and fifth years on the trauma rotation are responsible for performing more complex surgeries as well as transitioning into roles as teachers and administrators of the service. With the help of each service's physician's assistant, they are responsible for managing the surgical schedule as well as assisting with decision making both pre- and post-operatively. This includes determining the operative plan as well as requesting surgical equipment. Call is once to twice weekly.

Adult Reconstruction (10 weeks) – Keck Medical Center

While at Keck Medical Center, a team consisting of a PGY-2, 3, 4, and 5 are responsible for participating in total joint reconstruction surgery and other adult reconstruction procedures as well as the management of adult orthopaedic problems. The residents are expected to be well trained in performing basic orthopaedic total joint replacements as well as an appropriate workup of reconstruction patients, including both pre- and post-operative treatment. There are weekly conferences and didactics with attendings. Residents take occasional home calls during this service in addition to any "Green Team" call described above.

Adult Reconstruction (5 Weeks) – Rancho Los Amigos

The senior resident runs the surgical arthritis service at Rancho Los Amigos Medical Center. During this time, the resident is exposed to two days of surgery per week as well as managing pre- and post-operative management of joint replacement patients. Residents do not take in house call but do share in a pool of rotating service calls. They may have "Green Team" call during this time.

Spine (5 weeks) – Keck Medical Center

The senior resident is responsible for managing inpatient and out-patient treatment of the spine. This service provides broad exposure to the operative treatment of spinal deformity, degenerative conditions of the spine and spinal trauma. There are two weekly conferences which augment clinical training. Residents take home call in addition to any "Green Team" call as above.

Sports (10 weeks) – Keck Medical Center and LAC+USC Medical Center

The PGY-4 and PGY-5 on the sports service are responsible for managing the sports services at LAC+USC and Keck Medical center respectively. These services include both inpatient and out-patient treatment of acute and chronic sports injuries as well as training in sports injury rehabilitation. This service provides an extensive experience in arthroscopic surgery as well as many open surgical procedures.

Hand and Upper Extremity (5 Weeks) – LAC+USC Medical Center and Keck Medical Center

As a senior resident, the rotation builds on the exposure to hand and upper extremity gained earlier in the residency. Senior residents are involved in more complex surgical cases and have increased responsibility in the operating room. The senior resident is responsible for the organization of the service and dictates the operative schedule. Residents share home call for replantation cases, and are occasionally scheduled for "Green Team" calls. There are weekly didactics and monthly mortality and morbidity conferences.

Pediatric Orthopaedic Surgery (5 Weeks) – Children's Hospital Los Angeles

During this rotation, the senior resident is responsible for increasing clinical and surgical responsibility. This service includes daily lectures from attending physicians focusing on key concepts within pediatric orthopaedic surgery as well as preparation for the annual Orthopaedic Surgery In-Training examination (OITE). Also, there is a weekly staff

conference designed to review all pre- and post-operative cases including patient presentation, diagnoses, radiographs, and surgical details. This conference includes a monthly journal club review as well as morbidity and mortality conference. The residents take in-house call approximately twice a week throughout duration of the service.

Pediatric Orthopaedic Surgery and Orthopaedic Oncology (5 weeks) – LAC+USC Medical Center

Junior residents are paired with a senior resident and collectively cover the pediatric and oncology services. There are daily didactics with the pediatrics or oncology attendings. Also, one day per week is dedicated to Pediatric Sports, with clinic in the morning and surgery in the afternoon. Residents will have no call except for “Green Team” call as detailed above.

Orthopaedic Oncology (5 weeks)– Keck Medical Center

The senior resident will gain experience in the diagnosis and treatment of musculoskeletal neoplasms at one of the largest orthopaedic oncology practices in the country. Residents assist in numerous operative cases, ranging from small biopsies to definitive endoprothetic reconstructions. There is a weekly tumor board conference with pathology, radiology, medical and radiation oncology. The residents take home call in addition to any “Green Team” call as described above.

Foot and Ankle/Reconstruction (5 Weeks) – Keck Medical Center and LAC+USC Medical Center

This rotation involves a comprehensive educational experience involving workup and treatment of common and complex foot and ankle diagnoses. The senior resident operates both at Keck Hospital and LAC+USC. Additionally, there is a weekly resident education conference in which key concepts are reviewed and complex cases are discussed. Residents take home calls during this service in addition to any "Green Team" call described above.



2018-2019 Administrative Chief Residents



Anthony Essilfie, M.D. & Ali Azad, M.D.

Two PGY-5 residents are selected yearly by the faculty to function as Administrative Chief Residents. They are given advanced responsibilities in teaching, organization, and administration. The Chief Residents work closely with the Program Director and the Director of Resident Education to provide continuous resident feedback about various aspects of the program.

Libraries

The Norris Medical Library on the USC Health Sciences Campus has an extensive orthopaedic surgery section. The affiliated hospitals also have libraries which have current and past orthopaedic periodicals and reference books. Faculty and Alumni have donated funds to establish a collection of books located at the LAC+USC Medical Center. Also, the Norris Medical Library website includes access to numerous medical literatures, including multiple orthopaedic surgery full online books, journal databases, as well as other digital resources.

Conferences & Courses

Residents are encouraged to attend educational conferences and courses throughout the PGY-1 through PGY-5 years. During this time, residents are frequently able to attend AO Basic and advanced courses as well as more specialized courses related to their desired field of interest. Also, all fifth year residents are provided time off to attend both the annual American Academy of Orthopaedic Surgery conference as well as the annual Miller's Board Review conference.



Research Opportunities

Research is encouraged at all points during the residency program. Residents must complete at least one publication-worthy project during their residency. Projects may be clinically based or basic science. Residents are guided throughout the research process by regular meetings with the Resident Research Committee, consisting of clinical and basic science faculty members who are themselves active researchers. All projects are supervised by full-time faculty members and may be completed at any affiliated research centers. Additionally, projects may be completed at the Gait Laboratory at CHLA or Rancho Los Amigos Medical Center, or at the Orthopaedic Biomechanics Laboratory at the Long Beach Veterans Affairs Hospital. **One resident each year will have the opportunity to take a year off from clinical duties to do basic science research for a year. The research year will be supervised by Dr. Lieberman.**

Didactics & Educational Activities

Core Curriculum is the cornerstone of resident education and is held every Friday from 6:45 am until 8:30am. Residents are excused from all clinical responsibilities during this time. All lectures are given by faculty members. As part of the Core Curriculum there are special review sessions to prepare the residents for the annual Orthopaedic In-Training Exam (OITE). The Core Curriculum covers all aspects of Orthopaedic Surgery and runs on a 2-year cycle. Once a month, **Morbidity and Mortality** conferences are held during part of this time in order to further educate residents.

Department of Orthopaedic Surgery **Journal Club** is held once a month at Keck Hospital of USC, and each service also holds a conference or journal club each week in which residents are expected to prepare and present topics related to their respective services.



Monthly **Grand Rounds** are given by renowned visiting faculty. These lectures include the Joseph H. Boyes, MD Memorial Lecture focusing on Hand and Upper Extremity topics, and the Robert K. Kerlan, MD Memorial Lecture focusing on Sports Medicine related topics.

Subspecialty Conferences – Each subspecialty service also has at least one weekly faculty-conducted educational conference for the residents on that particular service

Evidence-Based Research Conference – This conference meets monthly. The purpose is to review evidence-based literature or an interesting article related to health policy or economics.

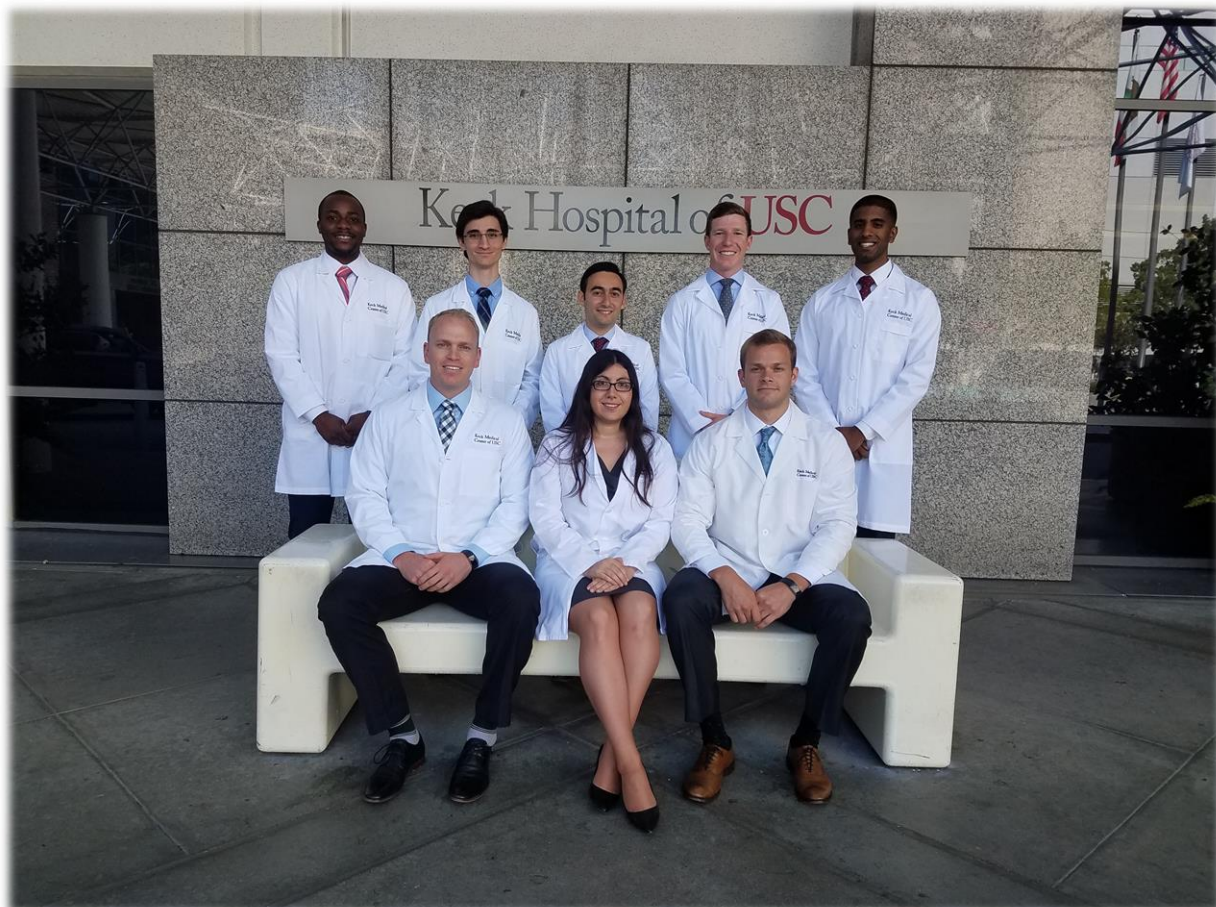
Other educational opportunities include cadaver dissection, arthroscopy tutorials, and sawbone labs.

One unique aspect of the education here includes the use of an arthroscopy simulation tower at LAC+USC Medical Center. Our program is one of only a handful of institutions to have this equipment available. This tower allows life-like simulation of multiple shoulder and knee arthroscopic procedures as well as step-by-step instruction for performing these procedures. There are also multiple research projects underway evaluating the use of this equipment in training residents and attending surgeons.





USC Department of Orthopaedic Surgery ~ Class of 2023 & Department Chairman (center) Jay R. Lieberman, M.D.





Salaries and Benefits



Salaries are negotiated annually and subject to change. Residents are paid on a bi-monthly schedule with the option to receive direct deposit. ***Residents who elect NOT to receive direct deposit will be paid monthly and will be responsible for retrieving their check from payroll in the City of Commerce.*** The annual breakdown of pre-tax salary effective 09/18/18 is:

YEAR LEVEL	MONTHLY SALARY	YEARLY SALARY
GY-1	\$4,419.31	\$53,031.72
GY-2	\$4,800.16	\$57,601.92
GY-3	\$5,201.04	\$62,412.48
GY-4	\$5,604.70	\$67,256.40
GY-5	\$5,997.49	\$71,969.88

Additionally, residents are provided with a \$2,000 (pre-tax) stipend at the beginning of their PGY-2 to pay for Step 3, California Medical License, and/or any other expenses related to training.

Health, Dental, Life Insurance: All residents may elect basic group health, dental, and life insurance benefits and coverage offered by Los Angeles County+USC, which pays the monthly insurance premiums for the resident. Dependent coverage is available, however, the resident is responsible for paying a percentage of the premium. Upon beginning their internship, residents are provided with a sum of money with which to use towards the health plan of their choice. Additional costs may come out of pocket and remaining money may be returned to the resident. Insurance plans may be modified on an annual basis. ***There is a 60-day+ waiting period for all medical benefits.***

Professional Liability: During the time a resident is approved for service in any affiliated institution, he or she is covered by the affiliated institution's liability policy.

Meals:

- ***LAC+USC Medical Center:*** Residents provided with \$28 per day with a maximum of \$8 for breakfast, \$10 for each lunch and dinner. This may be used at the staff cafeteria or the patient cafeteria which has extended hours.
- ***Keck Medical Center:*** Residents provided with \$28.00 per 24-hr period.
- ***CHLA:*** \$150 per month as a stipend for meals while on call.
- ***Rancho Los Amigos Medical Center:*** All meals are free
- ***Kaiser Permanente Baldwin Park:*** Residents are provided with \$7.50 for breakfast and \$10 for each lunch and dinner.

Parking: Residents are provided with parking at all facilities without charge.

Uniforms: Residents are provided with two white coats from the LAC+USC Medical Center. One white coat from Keck Medical Center of USC is provided during the resident's first Keck rotation. Complimentary laundry service is provided at both facilities.



Current Residents



Post Graduate Year 1

- Sofia Bougioukli – University of Thessalia, Faculty of Medicine
- Kevin Collon – University of Miami, Miller School of Medicine
- Olumuyiwa Idowu – University of Chicago
- Ramin Lalezari – Washington University School of Medicine
- Luke Lovro – University of New Mexico School of Medicine
- Kurt Mohty – University of Arizona College of Medicine-Tucson
- Akhil Reddy – Weill Cornell Medical College
- Kyle Schoell - Keck School of Medicine of **USC**

Post Graduate Year 2

- Neilen Benvegnu – Rutgers Robert Wood Johnson University
- Harsh Chawla – Icahn/Mount Sinai
- Hansel Ihn - University of California, Irvine, College of Medicine
- Candace Mason – University of Texas Medical Branch
- Braden McKnight - Keck School of Medicine of **USC**
- Brandon Ortega - Keck School of Medicine of **USC**
- Mathew Schur - Keck School of Medicine of **USC**
- Thomas Steck – University of Washington School of Medicine

Post Graduate Year 3

- Eric Basler – University of Washington School of Medicine
- Meghan Brown – Keck School of Medicine of **USC**
- Lisa Cao - David Geffen School of Medicine at UCLA
- Jihoon (Tony) Choi – Creighton University School of Medicine
- Mary Kate Erdman – University of South Florida College of Medicine
- Mark Howard – University of Pennsylvania School of Medicine
- Tristan Juhan – Tulane University School of Medicine
- Harrison Kay – Vanderbilt University School of Medicine
- Alexander Peterson – University of California, Irvine, College of Medicine
- Venus Vakhshori - Perelman School of Medicine at the University of Pennsylvania

Post Graduate Year 4

- Ram Alluri – David Geffen School of Medicine at UCLA
- Joseph Antonios - Stanford University School of Medicine
- Jacob Bobman - Columbia University College of Physicians and Surgeons
- Robert Burgmeier – Northwestern University The Feinberg School of Medicine
- Marie Dusch – University of California, San Francisco, School of Medicine
- Pouriya Ghayoumi – University of California, San Francisco, School of Medicine
- Aaron Gipsman – Chicago Medical School at Rosalind Franklin University
- Ryan Jahn – Keck School of Medicine of **USC**
- Adam Lindsay – Drexel University College of Medicine
- Nicholas Trasolini – Stony Brook University School of Medicine

Post Graduate Year 5

- Ali Azad - University of Cincinnati College of Medicine
- Joseph Cooper – University of Illinois at Chicago College of Medicine
- Steven Donohoe – David Geffen School of Medicine at UCLA
- Anthony Essilfie – Columbia University College of Physicians and Surgeons
- Stephen Gibbs – Keck School of Medicine of **USC**
- Kevork Hindoyan – Keck School of Medicine of **USC**
- Justin Hudson – Howard University College of Medicine
- Nima Kabirian - Tehran University of Medical Sciences
- James O'Dowd – Loyola University Chicago Stritch School of Medicine
- William Pannell – David Geffen School of Medicine at UCLA
- Frank Russo - University of California, San Diego, School of Medicine

FELLOWSHIP PLACEMENT

Fellowship Placement Class of 2018

- Tracey Didinger – Sports Medicine and Shoulder Surgery Fellowship at University of Colorado Health Science Center
- Brock Foster – Trauma Fellowship at Vanderbilt University Medical Center
- Nathanael Heckmann – Adult Reconstruction Fellowship at Rush University Medical Center
- Jessica Intravia – Hand and Upper Extremity Fellowship at Philadelphia Hand to Shoulder Center
- Jesse Kaplan – Hand and Upper Extremity Fellowship at the University of Pittsburgh
- Luke Nicholson – Hand Surgery, Upper Extremity, and Microvascular Surgery Fellowship at Duke University
- Michael Stefl – Adult Reconstruction Fellowship at the University of Indiana
- Michael Stone – Shoulder and Elbow Reconstruction Fellowship at the Rothman Institute
- Daniel Tran – Virchel E. Wood Hand and Upper Extremity Surgery Fellowship at Loma Linda University

Fellowship Placement Class of 2017

- Jessica Bear – Trauma Fellowship at Hospital for Special Surgery
- Michael Charles – Shoulder/Elbow Fellowship at Rush University
- William Croom – Sports Medicine Fellowship at Congress Medical Associates
- Taylor Dunphy – Sports Medicine Fellowship at Keck School of Medicine of USC
- Patrick Hill – Spine Surgery Fellowship at Hospital for Special Surgery
- Bradley Johnson – Spine Surgery Fellowship at New York University
- Pavel Moldavskiy – Hand Surgery Fellowship at Thomas Jefferson University
- Paramjit Singh – Spine Surgery Fellowship at University of California, San Francisco
- Justin Tilan – Trauma Fellowship at Washington University in St. Louis
- Siamak Yasmeh – Spine Surgery Fellowship at University of Wisconsin

Fellowship Placement Class of 2016

- Matthew Griffin – Foot & Ankle Fellowship at St. Alphonsus Hospital of Boise
- William Lundergan – Adult Reconstruction Fellowship Stanford University
- Christopher McCrum – Sports Medicine Fellowship at University of Pittsburgh
- Erin Meisel – Hand, Upper Extremity & Microvascular Surgery Fellowship at Duke and Pediatric Fellowship at Children's Hospital Los Angeles
- Kim Ruby – Traumatology Fellowship San Diego
- Christopher Sakowski – Foot & Ankle Fellowship at Mercy Medical Center of Baltimore
- Tajdip Sandhu – Harvard Combined Fellowship at Massachusetts General
- Lindsey Spragg – Sports Medicine Fellowship at Kaiser Permanente Orange County
- Michelle Sugi – Pediatric Fellowship at Stanford Children's Hospital and Sports Medicine Fellowship at UCLA
- Berkay Unal – Sports Medicine Fellowship at University of Kentucky

Fellowship Placement Class of 2015

- Matthew Cavallero – Trauma Fellowship at Indiana University Methodist Hospital
- Alexis Dixon – Foot and Ankle Fellowship at Baylor University Medical Center
- Christian Kikuchi – Foot and Ankle Fellowship at Mercy Medical Center of Baltimore
- Lydia Lee – Foot and Ankle Fellowship at the Foot and Ankle Institute at Desert Orthopaedic Center
- Sarah Lewis – Hand and Upper Extremity Fellowship at The Philadelphia Hand Center
- Steven Narvy – Sports Medicine Fellowship at Keck Medical Center of USC
- Timothy Rearick – Foot and Ankle Fellowship at Mercy Medical Center of Baltimore
- Maksim Vaynrub – Orthopaedic Oncology Fellowship at Memorial Sloan-Kettering Cancer Center
- Diego Villacis – Shoulder, Elbow, and Sports Medicine Fellowship at Columbia University Medical Center
- Kevin Vogeli – Hand Fellowship at the University of Washington

Orthopaedic Surgery Residency Graduation



Class of 2018

(Front) Michael Stefl, M.D., Jessica Intravia, M.D., Tracey Didinger, M.D., Daniel Tran, M.D.

(Rear) Daniel A. Oakes, M.D., Nathanael Heckmann, M.D., Brock Foster, M.D., Michael Stone, M.D., Jesse Kaplan, M.D., Luke Nicholson, M.D., Jay R. Lieberman, M.D.









Class of 2023



(L to R) Akhil Reddy, M.D., Olumuyiwa Idowu, M.D., Kyle Schoell, M.D., Kevin Collon, M.D., Luke Lovro, M.D., Kurt Mohty, M.D., Sofia Bougioukli, M.D., & Ramin Lalezari, M.D.

Class of 2023 Welcome Party







Work Life Balance









Alumni Connections





Living in Los Angeles



Los Angeles is a diverse community with a wide variety of activities, attractions, and entertainment for all types of people. The vast culture and variety of population in the Los Angeles area provides a wide area of experiences in entertainment, dining, and other activities. Popular attractions include L.A. Live entertainment complex, Hollywood Walk of Fame and Grauman's Chinese Theatre, the Griffith Observatory, Santa Monica Pier, Universal Studios, Disneyland, and much more.



L.A. Live

Considered as one of the entertainment capitals of the world, Los Angeles is home to much of the music and film industry. It is home to over 30 film and television studios including MGM, Sony Pictures, Paramount, Warner Brothers, Universal, Disney, 20th Century Fox, and Dreamworks. In addition to numerous recording studios to visit, residents can experience concerts or shows at one of the many venues located within Los Angeles, such as at the Hollywood Bowl, Pantages Theatre, Kodak Theatre, Nokia Theatre, Staples Center, Greek Theatre, or the Walt Disney Concert Hall.



Hollywood Bowl

Los Angeles has more museums per capita than any other city in the world, and with over 800 museums in the greater Los Angeles Area, residents have plenty to see and do. Popular museums among the residents include the Los Angeles County Museum of Art, The Getty Center, the Museum of Contemporary Art, as well as the downtown art walk in gallery row, hosted on a monthly basis.

For the sports enthusiasts, Los Angeles and nearby Anaheim are home to a wide variety of professional teams including the Los Angeles Lakers (NBA), Los Angeles Clippers (NBA), Los Angeles Kings (NHL), Anaheim Ducks (NHL), Los Angeles Dodgers (MLB), Anaheim Angels (MLB), Los Angeles Sparks (WNBA), Los Angeles Galaxy (MLS), Chivas USA (MLS), as well as a possible NFL team within the next few years. Additionally, Los Angeles is home to multiple collegiate teams including the USC Trojans and the UCLA

Bruins. Residents get further experience within the USC program assisting team physicians in physical exams and mentoring in the USC training room.

Los Angeles offers outdoor activities for everyone, no matter what type of 'outdoor enthusiast'. This includes multiple areas for hiking, such as Runyon Canyon, Fryman Canyon, Topanga Canyon, Griffith Park, Santa Monica Mountains, and much more. Additionally, Los Angeles' coastline stretches over 75 miles from Malibu to Long Beach, with over fifty beaches designed for rest & relaxation, beach sports and activities, as well as multiple surfing hot spots in Venice, Zuma, Malibu, Topanga, Hermosa, and Manhattan Beach.

A wide variety of neighborhoods throughout the greater Los Angeles area provides an extensive choice of housing for USC residents depending on personality type, hobbies, and family dynamic. The central location of the affiliated institutions as well as easy access to major highways gives significant flexibility when choosing housing location. Common locations for resident housing include downtown metro lofts, Pasadena, Santa Monica and adjacent beachfront areas, Hollywood, and the Silverlake / Los Feliz areas.

With an estimated 325 sunny days out of the year and an average temperature of 74° F, Southern California's climate is considered by many to be "perfect." Most days are sunny and warm, with gentle ocean breezes in the summer. The humidity is low with little rain.

Although Los Angeles offers everything anyone could ask for without ever having to leave, should you need to leave Los Angeles, there are five major airports including Los Angeles International Airport (LAX), Bob Hope Airport in Burbank, John Wayne Airport in Orange County, Long Beach Municipal Airport, and Ontario International Airport as well as an additional small aircraft airport located in Santa Monica.

If looking for a quick getaway, it is important to note that Los Angeles is within driving distance to many major destinations including:

- Catalina Island: 27 miles (by boat)
- Malibu 37.5 miles
- Santa Barbara: 95 miles
- Big Bear Lake/Mountain: 97 miles
- San Diego: 120 miles
- Joshua Tree: 128 miles
- Las Vegas: 265 miles
- Mammoth Mountain: 313 miles
- San Francisco / Bay Area: 382 miles
- Napa Valley: 400 miles





Department Events

At the University of Southern California, the faculty, staff, and residents are considered a family. This mentality allows the residents to experience excellence and compassion both within and outside of the workplace. Throughout the year, the department hosts special events to show appreciation for the hard work and efforts of the residents and faculty. These events include:

- New Residents and Fellows Welcome Party: With the start of each academic year, there is a welcome event to welcome new residents and into the orthopaedic family.
- Holiday Party: This event has traditionally been one of the social highlights of the year. This festive night includes great food, drinks, and entertainment.
- Southern California Orthopaedic Society Resident Graduation Dinner: This event represents the culmination of the orthopaedic surgery residency. The chief residents and their families are the guests of honor at this reception, and faculty, residents, and staff are present in order to congratulate and thank the residents for years of hard work.



Daniel A. Oakes, M.D. (Program Director)
Jay R. Lieberman, M.D. (Chair)

Fight On!