The Los Angeles Medical Center (LAMC) serves as the tertiary referral center for 4 million Kaiser Permanente members throughout Southern California. It is the major referral center for services including cardiac catheterization, cardiac surgery, electrophysiology, bone marrow transplantation, apheresis, radiation oncology, neurosurgery, and specialized urologic surgery. The Medical Center also maintains active teaching programs in all major medical and surgical subspecialty services.

LAMC is one of the major affiliated teaching hospitals of the David Geffen School of Medicine of the University of California in Los Angeles (UCLA). Students and residents from UCLA, as well as many other national medical schools and some international medical schools rotate through the internal medicine and subspecialty services. Many members of our medical faculty hold faculty appointments from UCLA.

Kaiser Permanente is among the nation’s largest and most highly regarded managed care organizations. As a member of our Fellowship program, you will learn to practice cost effective yet caring medicine — an approach indispensable to providing quality health care in all medical settings in which you will practice in the future.

The Program
The clinical curriculum is designed to meet COCATS 4 recommendations by the American College of Cardiology for both procedural volume and training time for competency in cardiovascular disease.

The fellowship program provides Fellows with broad exposure to all aspects of clinical cardiology, with the goal of developing well-rounded clinicians capable of independent clinical practice to provide state-of-the-art, evidence-based care. Complete cardiac catheterization
and cardiac surgical services as well as all modalities in cardiac imaging and patient management are available at LAMC. A brief description of the major cardiac services present in our program is provided below.

Our 32-bed Coronary Care Unit (CCU) is the largest in the city of Los Angeles and admits ~2,500 patients yearly. The CCU is divided into 2 modules staffed by two physician teams equipped to provide intensive critical care, invasive monitoring, and step-down care. The CCU supports the training requirements of the Departments of Internal Medicine in addition to Cardiology.

The Cardiac Surgical Department performs ~2,000 surgeries yearly, including a full spectrum of patients with ischemic, valvular, and congenital heart diseases. It is one of the three largest cardiac surgical programs in the State of California. The Regional Cardiac Catheterization Laboratory is located at LAMC and consists of five fluoroscopy suites. The Cath Lab performs >6,000 diagnostic, and >2,000 interventional procedures every year. Each Fellow rotates for 6-8 months in the Cath Lab over the course of 3 years. Our 12-month ACGME-approved Interventional Cardiology Fellowship trains three PGY7 fellows each year.

The Regional Clinical Cardiac Electrophysiology (CCEP) Service, also located at LAMC, performs >500 diagnostic studies and >250 ablations per year, including state-of-the-art ablation procedures to treat ventricular arrhythmias, atrial fibrillation, atypical flutter, etc. Each Fellow spends 2-4 months on this rotation. Our 12-month ACGME-approved CCEP Fellowship trains two PGY7 fellows each year.

All CVD fellowship rotations take place at LAMC except for a 4-week block of Cardiac Computerized Tomography (CCT) training at the Harbor UCLA Medical Center under Dr. Matthew Budoff; and a 4-week block of Heart Transplant training at the Cedars Sinai Medical Center under Dr. Jon Kobashigawa.

Conferences and Seminars

• Fellows Core Curriculum: This conference is held daily at noon over lunch. Invited faculty from general cardiology, interventional cardiology, electrophysiology as well as other departments present didactic lectures on topics related to the diagnosis and treatment of cardiovascular diseases.

• Cath lab conference: This conference is led by the interventional cardiologists and is held every Friday. The most interesting cases of the week are presented. Angiographic findings, interventional procedures, and outcomes are reviewed.

• ECG conference: This conference is part of the core curriculum and is organized by the Electrophysiology faculty. This is a case-based teaching conference where ECGs and intracardiac electrograms are reviewed.

• CCU conference: This is a weekly case-based conference where clinical fellows present cases from the CCU and lead a focused discussion of topics centered around clinical cases.

• Journal Club: These meetings are held monthly. Recent journal articles are discussed by faculty and fellows.

• Electrophysiology conference: The electrophysiology staff meet daily to review cases of the day. This is a working conference with a focus on patient management.

• Heart team conference: Fellows participate in daily heart team multidisciplinary conferences with interventional cardiology and cardiac surgery. Cases are discussed with regards to different approaches and combined decisions are made.
The three-year program includes the following principal rotations:

**Coronary Care Unit (CCU)**
Fellows spend eight months in the CCU, which provide training in a broad spectrum of acute and tertiary-care level cardiac illnesses. The CCU is staffed by two faculty, two cardiac Fellows, and a number of residents, interns, and medical students. Teaching rounds are conducted daily with faculty members. The program is structured to allow for a balance between faculty supervision and fellow autonomy.

**Catheterization Laboratory**
Each trainee will have performed 500-600 catheterizations as principal operator by graduation. The fellow will be competent in performing right and left heart cath, shunt runs, grafts, and valve disease. Congenital heart disease cases are also performed. A supervising faculty member is present during all studies.

**Echocardiography**
The echocardiography laboratory provides comprehensive training in echocardiography, including transthoracic, transesophageal and stress echocardiography. While on the rotation, fellows perform 2-6 TEEs daily and perform / interpret > 20 TTEs daily. All of our graduates meet the requirements for echo board certification upon graduation.

**Noninvasive Rotation**
Training in ECG interpretation, exercise testing, Holter monitoring, pacemaker follow-up, and nuclear cardiology is provided during four months of Noninvasive Cardiology rotations. In addition, each fellow spends four weeks at the Los Angeles Biomedical Research Institute (LA Biomed) and Harbor-UCLA Medical Center under the renowned Dr. Matthew Budoff.

**Research**
Clinical research is an integral part of the Fellowship program. Fellows have access to a large comprehensive population-based database maintained by Kaiser Permanente. This provides an exceptional opportunity to enable research studies related to epidemiology, prevention, diagnosis and treatment of cardiovascular diseases. The Department of Research and Evaluation provides support with study design, programming, and statistics. Fellows present their research findings at national conferences and publish in peer-reviewed journals. The impact of research at Kaiser goes beyond conference presentation and scholarly publications. Findings from our research are translated into clinical practice to improve the quality of clinical care delivered.

**Outpatient clinic**
Each cardiology fellow maintains an outpatient continuity clinic one afternoon a week throughout the entire training period. The patients, once assigned, remain under the trainee’s care. This provides longitudinal experience in ambulatory management.

**Electrophysiology**
Emphasis is directed to understanding the fundamentals of intracardiac recording, diagnosis of dysrhythmias, the performance of in-patient EP consults, and selection of antiarrhythmic strategies. Opportunities to participate in device implantation and ablations are available depending on interest.

**Other Rotations**
Exposure to cardiac transplantation, post-cardiac surgery care, ambulatory cardiac rehabilitation and in-patient cardiology consultation occurs throughout the training period.

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to learn more about salary & benefits, how to apply, our faculty & fellows, and past & current projects