Organizational Structure

BEFORE

Department of Medicine
  - Cardiology
    - General
    - Interventional
    - Electrophysiology
    - Cardiac Rehab

Department of Surgery
  - Cardiothoracic Surgery
    - CABG
    - Valvular
    - Transplant
    - Thoracic Aortic

AFTER

Cardiology
  - General
  - Interventional
  - Electrophysiology
  - Advanced Heart Disease
  - Women's Heart
  - Hypertension
  - Critical Care
  - Cardiac Rehab
  - Congenital Heart

Cardiothoracic Surgery
  - CABG
  - Valvular
  - Thoracic
  - Transplant
  - MCS
  - Thoracic Aortic
  - Congenital Heart
  - Critical Care/CSICU

Vascular Surgery
  - Echo
  - SPECT*
  - PET*
  - CT*
  - MR*

Cardiac Imaging
  - Basic Science
  - Translational
  - Clinical

Cardiovascular Research

Cardiovascular Education
  - Residency Programs
  - Fellowship Programs
  - CME
  - Community Outreach
  - Online Education

Other Affiliated Programs:
  - Cardiac Anesthesia*
  - Cardiac Pathology*
  - Emergency Medicine*
  - Perfusion Ped/Endo

* Services provided by contract departments
Heart Institute Leadership

**Director**
Eduardo Marbán, MD, PhD

**Administration**
Executive Director
John Oldenquist

**Physician Leadership**

**Division Directors**
- Tim Henry, MD
- Michael Nurok, MD
- Alfredo Trento, MD
- Evan Zahn, MD

**Associate Directors**
- Ali Azizzadeh, MD
- Sumeet Chugh, MD
- Jon Kobashigawa, MD
- Raj Makkar, MD
- Ron Victor, MD

**Program Directors**
- Francisco Arabia, MD
- Noel Bairey Merz, MD
- Dan Berman, MD
Ten-year trends

• *Smaller, better, faster*: invasive → percutaneous

• *More options*: cutting-edge therapies
Ten-year trends

• *Smaller, better, faster:* invasive → percutaneous

• *More options:* cutting-edge therapies

• *Discovery engine:* innovation from within
## Intellectual Property & Publications

### Intellectual Property

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### Publications by Heart Institute Faculty

![Publication Graph](image-url)

**Total Publications:** 467

**FY07:** 92

**FY08:** 150

**FY09:** 250

**FY10:** 300

**FY11:** 350

**FY12:** 400

**FY13:** 450

**FY14:** 500
Heart Institute Clinical Trials

Ongoing Clinical Trials

- Artificial intelligence for cardiac imaging analysis
- Atherosclerosis vaccine
- Atrial appendage clot-prevention device
- Cardiac stem cell therapy for cardiac ventricular dysfunction/regeneration
- Cardiomyopathy related to obesity and diabetes
- Congenital pulmonic valve dysfunction
- Critical limb ischemia cellular therapies
- Estrogen and heart disease
- Extracellular matrix therapy for left ventricular dysfunction
- Genomics to identify sudden cardiac arrest risk
- Hypertension
- Long-term outcomes after surgical intervention
- Mechanical circulatory support
- Microvascular heart disease
- Noninvasive methods to detect heart transplant rejection
- Nonsurgical intervention of atrial fibrillation
- Novel biologic agents for hyperlipidemia
- Optimal imaging modalities for diagnosis
- Patent foramen ovale closure devices
- Percutaneous aortic and pulmonic valve replacement
- Percutaneous mitral valve repair
- Peripheral vascular disease percutaneous devices
- Plaque phenotyping using carotid MRI imaging
- Renal denervation for hypertension & pathophysiology
- Sex-specific determinants of angina phenotype
- Transplant anti-rejection medications
- Ventricular assist devices
Ten-year trends

• *Smaller, better, faster:* invasive → percutaneous

• *More options:* cutting-edge therapies

• *Discovery engine:* innovation from within

• *Optimizing resource utilization:* clinical data mastery
### UHC Service Line LOS Index Cardiac Surgery and Cardiology (Lower is Better)

#### Cardiac Surgery UHC Service Line LOS Index

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#### Cardiology UHC Service Line LOS Index

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Ten-year trends

• *Smaller, better, faster:* invasive → percutaneous

• *More options:* cutting-edge therapies

• *Discovery engine:* innovation from within

• *Optimizing resource utilization:* clinical data mastery

• *Training tomorrow’s leaders*
## Education: Residencies & Fellowships

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Matched Residences and Training Grant

2013-2017 Cardiology Fellowship Education

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NIH T32 for Advanced Cardiovascular Research Training

- Renewal scored a perfect 10 – funding ➔ 2023
- 12 trainees in 4 Years: 5 PhDs, 4 MDs, 2 MD/PhD, 1 DVM
- 6 trainees have completed two-year appointment
  - 50% have secured NIH career development awards (KL2, K01, K23)
  - 5 of 6 are continuing as postdocs or in ladder faculty tracks
  - 1 of 6 in industry leadership position

T32 Fellowship Grant
Total Direct and Indirect Costs

- $1,795,868
- $2,273,382

8/1/2013 – 7/31/2018
8/1/2018 – 7/31/2023
Ten-year trends

• *Smaller, better, faster:* invasive $\rightarrow$ percutaneous

• *More options:* cutting-edge therapies

• *Discovery engine:* innovation from within

• *Optimizing resource utilization:* clinical data mastery

• *Training tomorrow’s leaders*

• *Reputation:* local $\rightarrow$ national
US News and World Report Cardiology and Heart Surgery Rankings

Western USA


1

2

3

Cedars-Sinai Medical Center, Los Angeles, California
Stanford Hospital and Clinics, Stanford, California
Ronald Reagan UCLA Medical Center, Los Angeles, California

Cedars-Sinai Heart Institute


1 2

4

6

10

14

Cedars-Sinai Medical Center, Los Angeles, California
Stanford Hospital and Clinics, Stanford, California
Ronald Reagan UCLA Medical Center, Los Angeles, California
Ten-year trends

- Smaller, better, faster: invasive → percutaneous
- More options: cutting-edge therapies
- Discovery engine: innovation from within
- Optimizing resource utilization: clinical data mastery
- Training tomorrow’s leaders
- Reputation: local → national
- Financial growth
Acknowledgments

- All Cedars-Sinai Heart Institute faculty and staff