General Surgery Residency Leadership

- Bruce Gewertz, MD
  - Chairman, Department of Surgery
- Ali Salim, MD
  - Program Director
- Farin Amersi, MD
  - Associate Program Director
- Rebecca Bernstein
  - Academic Program Coordinator
The Basics

- 4 Chief Residents/year
- 6 Preliminary (Designated) Intern/year
- 6 Preliminary (Anesthesia) Interns/year
- Training length – 5-7 years
- Research Year (s)
- RRC Approved 2015
Our Program
Cedars Sinai Health System

- 960 Beds (120 ICU)
- > 49,000 Admissions
- > 80,000 ED Visits
- Teaching Faculty (n = 250)
- Private Attending Staff (n = 1,795)
Our Campus
Our Campus
Our Campus
Our Campus
Our Campus
Institutional GME

- 306 Residents Total (18 programs)
  - Medicine
  - Pathology
  - Radiology
  - Urology
  - Neurology
  - Ob/Gyn
  - Surgery
  - Neurosurgery
  - Orthopedics
  - Anesthesiology

- 154 Fellows in 65 Programs
Surgical Fellowships at CSMC

- Surgical Critical Care
- Minimally Invasive Surgery/Bariatrics
- Surgical Oncology
- Liver Transplant/Hepatobiliary
- Colon & Rectal Surgery
- Breast Surgery
- Minimally Invasive Thoracic
- Cardiac Surgery
Curriculum - Internship

- General Surgery
- MIS
- Pediatric Surgery
- SICU
- ACS
- Night Float
- Plastics
- Surgical Oncology
- Neurosurgery
- Thoracic
- Transplant
- Colorectal
- Urology
- Orthopedics
- Vascular
Curriculum – 2nd Year

- Surgical Oncology
- SICU
- ACS
Curriculum – 3rd Year

- ACS (On-call)
- Vascular Surgery
- General Surgery
- Pediatric Surgery
- Thoracic Surgery/EGD
Curriculum – 4th Year

- ACS
- Minimally Invasive Surgery/Bariatrics
- Transplant/Hepatobiliary
- Colorectal Surgery
- General Surgery
Curriculum – Chief Year

- Vascular Surgery
- General Surgery
- Surgical Oncology
Operative Volumes
2005 - 2010
All cases performed at CSMC

- Tertiary/quartenary surgery
- Pediatric surgery
- “Community” surgery
- “County” experience
Outpatient Clinics

- Tuesday Morning
- Rotation dependent
American Board of Surgery

- 2007-2011
  - 83% Pass Rate QE (1st attempt)
  - 100% Pass Rate CE
Research at Cedars-Sinai

- 1-2 years
- Optional
- Funded by DOS
- Meeting Support
- Modest clinical responsibilities
Research Opportunities

- Cardiothoracic Surgery Lab
- Stem Cell Lab
- Pediatric Surgery Lab
- Ophthalmology Research Lab
- Transplant Immunology
- Islet Cell Transplantation
- Minimally Invasive Surgical Tech Institute
- Surgical Oncology Lab
- Trauma Research
- Clinical Trials
Cedars-Sinai Clinical Scholars Program

This innovative program will provide funding, career guidance, education and skill acquisition for aspiring clinical scientists working at the Medical Center.

Essential Elements of the Program

- The program is directed towards residents (in the later years of their training), fellows, and young faculty with aspirations to become clinical scientists.
- All training programs and clinical departments are eligible to nominate candidates for competitive admission.
- Program duration of 2 years: Year 1: part-time curriculum in translational medicine and clinical research; Year 2: full-time research under the supervision of an experienced mentor. In special cases, admission for a one year program, which combines fulltime research with participation in the curriculum, may be considered.
- Potential funding for up to one year of full-time research for those judged to be most competitive for future funding.
- Required plan for a K award or other grant from NIH to be tabled during the first year with application for funding to be awarded during research year.

Outcome Criteria

1. The principal criterion for a successful outcome is the production of a successful clinical scientist who will have an impact on a field of clinical science upon graduating from the program.
2. The essential requirement for defining a successful outcome will be a successful application for peer-reviewed research support, particularly a K-series grant from NIH.
3. Competitiveness in the job market would also be a goal of the program. This would be assessed by the following:
   i. Research publications
   ii. Grant support
   iii. Likelihood of future grant support based upon current work
   iv. Presentation and communication skills
   v. Breadth of scientific understanding
   vi. Entrepreneurial approach
4. Specific personal qualities and skills will be developed while in the program:
   i. Dedication to solving a scientific problem
   ii. Ability to formulate a hypothesis or relevant research question
   iii. Ability to present information to others
   iv. Ability to review basic and clinical research critically
   v. Appreciation of the relevance of a broad range of scientific disciplines

Ongoing Career Development at Cedars-Sinai Medical Center

Clinical scholars who excel will be viewed as potential faculty recruits. Appropriate discussions will be initiated with such individuals to ascertain whether their career goals can be served by a faculty appointment at Cedars-Sinai, including considerations of start-up support for an independent research career.


<table>
<thead>
<tr>
<th>ISSUES IN CLINICAL AND TRANSLATIONAL RESEARCH</th>
<th>BIOSTATISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design of epidemiologic studies</td>
<td>Biostatistics - Confounding, bias, study design</td>
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<tr>
<td>Testing a hypothesis, asking a good question</td>
<td>Biostatistics (finish study design) - Descriptive statistics for continuous data</td>
</tr>
<tr>
<td>Design of clinical trials</td>
<td>Biostatistics - Descriptive statistics for binary and survival data</td>
</tr>
<tr>
<td>Measures and how they influence data analysis: Categorical measures</td>
<td>Biostatistics - Elementary probability theory &amp; distributions: Normal distribution</td>
</tr>
<tr>
<td>Measures and how they influence data analysis: Continuous measures</td>
<td>Biostatistics - Central limit theorem &amp; confidence intervals</td>
</tr>
<tr>
<td>Randomization, sample size and power</td>
<td>Biostatistics - Hypothesis testing &amp; equivalence testing</td>
</tr>
<tr>
<td>Data collection, recording, storage and management</td>
<td>Biostatistics - Power, sample size, incomplete (missing) data</td>
</tr>
<tr>
<td>Questionnaire design and psychometrics</td>
<td>Biostatistics - Correlation, bivariate and multiple regression – an introduction</td>
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<tr>
<td>Data and Safety Monitoring</td>
<td>Biostatistics - Comparing means – t tests and analysis of variance</td>
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<tr>
<td>Bioinformatics and information systems for clinical research</td>
<td>Biostatistics - Binary outcomes – comparing proportions – chi square tests</td>
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<tr>
<td>Bioinformatics and information systems for clinical research</td>
<td>Biostatistics - Binary outcomes – introduction to logistic regression and quantal responses</td>
</tr>
<tr>
<td>Good Clinical Practice (GCP)</td>
<td>Biostatistics - Statistical reporting in scientific papers - wrap up &amp; review</td>
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<tr>
<td>Clinical Trial Management</td>
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<tr>
<td>FDA and ICH Regulations for Drugs and Devices</td>
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CLINICAL SCHOLARS PROGRAM

The program is directed towards residents, fellows, and young faculty with aspirations to become clinician-scientists.

Year 1: Curriculum in translational medicine and clinical research
Year 2: Research under the supervision of an experienced mentor.
Education Curriculum

- Chief Rounds (Tuesday)
- Grand Rounds (Wednesday)
- M&M Conference (Thursday)
- Core Curriculum/Basic Science (Thursday)
  - Intense ABSITE preparation
- Skills Lab
Other Conferences

- Thoracic Conference
- Trauma Conference
- SICU Journal Club
- SICU Core Curriculum
- Tumor Board
- Surgical Oncology Conference
- Bariatric Conference
- Colorectal Conference
- Breast Conference
- Vascular Conference
- Core Competency
Simulation Lab

- Testing ground for new technology from Storz
- Laparoscopic/Endoscopic Skills Training
  - Simulator Lab
  - Inanimate lab
  - Animal lab
Intern’s Boot Camp

- Intern’s Skills Education
  - Suturing and knot tying
  - Central line placement
  - Basic laparoscopic skills
  - Hernia anatomy
  - Instruments
  - Pig lab – open surgery
Program Components

- 2 Simulated Operating Rooms With Control Rooms
- 1 Simulated Trauma Room
- 1 Simulated ICU Room
- 1 Simulated NICU Room
- 1 Simulated LDR Room
- 1 Heart Sounds Lab
- 3 Airway Skills Lab
- 1 “Romper Room” Computer Skills Lab
- 4 De-Brief Rooms
- 2 Teaming Rooms
- 2 Staff Offices
- Reception/Work Room
Mentoring Program

- All Residents
- Assigned Faculty Mentor on Day 1
- Quarterly meetings
- Available anytime
- Leadership Mini-Retreat
Evaluation of Residents

- Periodic Evaluations (with Program Director)
- ABSITE
- Mock Oral Exams Annually
- Conference Attendance
- Teaching (residents and medical students)
- Rotation evaluations (6 competencies)
  - Faculty, residents, nurses
Medical Students

- **MS-III Rotations**
  - Acute Care Surgery
  - Advanced General Surgery
  - Minimally Invasive Surgery
  - Colorectal Surgery
  - Vascular Surgery

- **MS-IV Rotations**
  - Acute Care Surgery
  - Advanced General Surgery
  - Minimally Invasive Surgery
  - Colorectal Surgery
  - Plastic Surgery
  - Pediatric Surgery
  - Surgical Oncology
  - SICU
  - Thoracic Surgery
  - Vascular Surgery
Medical Students

- **MS-III Rotations**
  - Acute Care Surgery
  - Advanced General Surgery
  - Minimally Invasive Surgery
  - Colorectal Surgery
  - Vascular Surgery

- **MS-IV Rotations**
  - Acute Care Surgery
  - Advanced General Surgery
  - Minimally Invasive Surgery
  - Colorectal Surgery
  - Plastic Surgery
  - Pediatric Surgery
  - Surgical Oncology
  - SICU
  - Thoracic Surgery
  - Vascular Surgery

> 500 third and fourth year medical students per year
Resident Responsibilities

- Supervise physical exams
- Review and co-sign daily progress notes
- Review and co-sign H&Ps
- Be involved on-call with all consults
- **Involve** them in bedside minor procedures and also in the OR
- **Teach** them during rounds and on wards
- **Positive role model**
Work Environment
Work Environment

- 100% Compliance with Work Hours Restrictions of the ACGME
- Call q4d on average/nightfloat
- Day Off (24hrs/week)
- In House Teams: IV, Blood draw, Transport
- Food Allowance, Free Parking, Laundry
- Information Systems (Electronic Med Record)
Conference and Vacation Time

- **Conferences**
  - Abstract presentation
  - ACS Clinical Congress
  - Board Review

- **Vacation**
  - 4 weeks
Where do our residents go??
Where do our residents go??

- 2012-2013
  - Colorectal – Cedars
  - Transplant – Stanford
Where do our residents go??

- 2011-2012
  - Colorectal – SUNY Stony Brook
  - Vascular – Rush
  - Surgical Oncology – John Wayne Cancer Institute
  - MIS – Cedars
Where do our residents go??

- 2010-2011
  - Hepatobiliary – University of Michigan
  - Plastic Surgery – University of Alabama
  - Colorectal Surgery – Cleveland Clinic
  - Vascular Surgery - USC
Ideal Residency

- Case volume and mix
- Mentorship
- “Academic” productivity
- Leadership
- Environment