

**Antimicrobial Stewardship and Hospital Epidemiology Concentration
Clinical Scholars Track
UCLA Multi-Campus Infectious Diseases Fellowship Program**

Introduction: The antimicrobial stewardship and hospital epidemiology concentration is designed for fellows who desire a clinical career with a focus on antimicrobial stewardship and/or hospital epidemiology. Upon entry into the program, individuals in this concentration will be assigned a mentor from within the Division of Infectious Diseases and will work with this individual to design one or more longitudinal scholarly activities designed to provide training experiences in these areas.

Faculty Director(s): Christopher Graber, MD MPH; Daniel Uslan, MD MBA; Jonathan Grein, MD; Jennifer Curello, PharmD

Objectives: This concentration aims to promote excellence in the following areas:

- 1) Inpatient antimicrobial stewardship at the hospital level
- 2) Antimicrobial stewardship at a multihospital and/or national level
- 3) Infection control and hospital epidemiology
- 4) Outpatient antimicrobial stewardship (including outpatient parenteral antimicrobial therapy management and initiatives to reduce unnecessary antimicrobial use in the outpatient arena)

Trainees will choose a specific area of interest and develop a project in consultation with the concentration directors. Fellows electing this concentration are also strongly encouraged to pursue work with antimicrobial stewardship and/or hospital epidemiology teams at one of the affiliated hospitals. Skills obtained through this concentration will include:

- How to identify targets for, design and implement, and measure the impact of antimicrobial stewardship interventions
- How to recognize and develop metrics that allow for interfacility comparisons of antimicrobial usage
- How to identify targets for, design and implement, and measure the impact of infection control interventions
- Practical skills in developing and maintaining an outpatient parenteral antimicrobial therapy program
- Recognition of principles of human behavior that can be utilized in promoting desired action in antimicrobial use and/or concordance with infection control guidelines
- Develop an understanding of central hospital epidemiology topics such as transmission-based precautions, hand hygiene, hospital acquired infection surveillance strategies, environmental infection control, etc.
- Develop an understanding of outbreak investigations.
- Learn to design and implement clinical process improvement interventions.
- Develop an understanding of the regulatory environment surrounding hospital infection prevention and public reporting requirements for certain infections.

Resources and Opportunities:

- Faculty at affiliated institutions:

- UCLA-Ronald Reagan Medical Center and Santa Monica Hospital
 - Daniel Uslan, MD
 - Jennifer Curello, PharmD
- VA Greater Los Angeles Healthcare System
 - Christopher Graber, MD MPH
 - Matthew Goetz, MD
- UCLA-Olive View Medical Center
 - Arthur Jeng, MD
 - Suzanne Donovan, MD
- Cedars-Sinai Medical Center
 - Michael Ben-Aderet, MD
 - Jonathan Grein, MD
 - Rekha Murthy, MD
- Service on Antimicrobial Stewardship Committee and/or Infection Control Committee at individual hospital sites
- Hospital epidemiology rotation during first year of fellowship
- Elective time in both first and second years of fellowship devoted to antimicrobial stewardship/hospital epidemiology (schedule permitting)
- Opportunities to participate in quality improvement activities
- Collaboration with antimicrobial pharmacists at each institution in piloting stewardship initiatives
- Opportunities to participate in meetings on national VA antimicrobial research initiatives
- Opportunities for multidisciplinary collaboration with UCLA academic departments, including the Anderson School of Management
- Online course curriculum, including SHEA Primer on Healthcare Epidemiology, and case-based online courses in antimicrobial stewardship

Project Examples:

- Treatment for Positive Urine Cultures in Hospitalized Adults: A Survey of Prevalence and Risk Factors in 3 Medical Centers (Seong Choi, MD, research article published in *Infection Control & Hospital Epidemiology*, 2015)
- Bacteremia associated with *Clostridium difficile* colitis: Incidence, risk factors, and outcomes (Andrea Censullo, MD, IDWeek abstract, 2015)
- Sustainability of a Self-Stewardship Time-Out Program (SSTOP) for Vancomycin (VAN) and Piperacillin-Tazobactam (P-T) at a Veterans Affairs Medical Center (Hayden Lowenstein, MD, IDWeek abstract, 2015)
- Antimicrobial stewardship programs: comparison of a program with infectious diseases pharmacist support to a program with a geographic pharmacist staffing model (Andrew Ma, MD, IDWeek abstract, 2014, and research article published in *Hospital Pharmacy*, 2014).
- Outpatient parenteral antimicrobial therapy at a large Veterans Administration medical center (Andrew Lai, MD, research article published in *The American Journal of Managed Care*, 2013)

Contact Information: For questions or more information, please contact Dr. Christopher Graber: christopher.graber@va.gov