UC Berkeley MHIRT Program

MINORITY HEALTH – GLOBAL HEALTH

Info Session - September 25, 2009
http://globalhealth.berkeley.edu/mhirt
What is MHIRT?

- A Summer Research Program for qualified Cal students

If selected, you will:
- Work at least one semester in a lab at Berkeley
- Spend the summer conducting lab research at an infectious disease lab in the developing world
- Travel in-country, and learn about environmental factors that contribute to infectious disease burden in poor countries
- Receive a summer research stipend and travel support
Partner Sites

Managua, Nicaragua; São Paulo, Rio de Janeiro, Salvador, Brazil; Cape Town, Pretoria, South Africa; Kampala, Uganda; Kharagpur, Sevagram, Mysore, India; Xiamen, China
## Common Goals

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<th>CEND Mission</th>
<th>BSP Mission</th>
<th>NIH’s MHIRT Goals</th>
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<td>Accelerate the innovation of new drugs, vaccines, and diagnostics for diseases that primarily or disproportionately afflict people in developing countries.</td>
<td>Promote the success of students from economic, gender, ethnic and cultural groups historically underrepresented in the biological sciences.</td>
<td>Train the next generation of researchers to reduce health disparities among underserved populations... And offer international training for students from health disparity populations</td>
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[ncmhd.nih.gov/our_programs/mhirt.asp](ncmhd.nih.gov/our_programs/mhirt.asp)  
cend.berkeley.edu/  
bsp.berkeley.edu
The Basics

- **Apply:** October 2009
- **Awards Announced:** December 2009
- **8 Student Slots:** 6 undergraduate, 2 graduate
- **Spring 2010 Activities:**
  - Work in a lab at UC Berkeley
  - Take the MHIRT Seminar on Research in Developing Countries
- **Summer 2010:**
  - Travel abroad for your summer research
- **Fall 2010:**
  - Present your research at the Berkeley Global Health Symposium
Who’s Eligible?

- Berkeley undergrads in their 3rd year or higher, and doctoral students, interested in health-related research careers and from a “health disparity” population.
- U.S. government defines “health disparity” populations as African Americans, Asian Americans, Hispanic Americans, Native Americans, Alaskan Natives, Native Hawaiians and Pacific Islanders, and the medically underserved (i.e., socio-economically disadvantaged individuals in rural and urban areas)
- You must meet minimum course and GPA requirements (to be announced in October 2009)
Where/What Can You Study?

Nicaragua:
- Harris (Public Health-IDV)
  Dengue

Brazil:
- Riley (Public Health-IDV)
- Sjolander (Bioengineering)

Uganda:
- Rosenthal (UCSF)
  Malaria

South Africa:
- Alber (MCB)
  Tuberculosis
- Getz (ESPM)
  HIV/Tuberculosis

India:
- Alber (MCB)
  Tuberculosis
- Riley (Public Health-IDV)
- Reingold (Public Health-Epi)
  HIV, Tuberculosis, Influenza
- Sjolander (Bioengineering)

China:
- Zhou (MCB)
  HIV
**MHIRT Berkeley Investigators**

**Tom Alber, MCB**  
Structural biology, biochemistry.  

**Wayne Getz, ESPM**  
Mathematical modeling, eco-informatics.  
Develops models of HIV and TB transmission through human populations, to understand and test impacts of different treatment regimens.

**Eva Harris, SPH, Infectious Disease & Vaccinology**  
Virology, epidemiology.  
Combines field-based and molecular epidemiology with studies of the dengue virus in mouse models.

**Lee Riley, SPH, Infectious Disease & Vaccinology**  
Epidemiology, molecular biology.  
Molecular epidemiology of STIs and other infections in slums and studies of M. tb mutants in a mouse model of latent TB.

**Kimmen Sjölander, Bioengineering**  
Computer science, computational biology.  
Develops computational tools for prediction of gene function from sequence, with a particular interest in identifying genes that confer virulence to microbes.

**Art Reingold, SPH, Epidemiology**  
Epidemiology, diagnostic evaluation.  
Examines social and environmental factors in infectious disease transmission, molecular epidemiology of flu and STIs, and cost-effectiveness of point-of-use diagnostics.

**Phil Rosenthal, UCSF**  
Molecular biology, clinical trials.  
Studies comparative effectiveness of treatments for Malaria and HIV, malaria drug target discovery and screening.

**Qiang Zhou, MCB**  
Molecular biology, biochemistry  
Studies protein-protein interactions in HIV, particularly the role of host transcriptional regulation in HIV replication.
Program Timeline

- Oct. 12: Application available online
- Nov. 13: Applications due by midnight
- Dec. 1 – 11: Interviews with faculty
- Dec. 19: Decisions announced
- Jan. 18-22: Weekly workshop starts
- Feb. 1: Students begin training in their labs (start date will vary by lab)
- May 26: Pre-travel orientation
- Oct: Berkeley Global Health Symposium
Workshop

- One night a week, beginning the week of Jan. 18

- Topics:
  - Burden of neglected diseases in endemic countries
  - Neglected disease R&D: financing and policy
  - History of international health research
  - Research ethics and “global health experiences”
  - Social determinants of health
  - Overview of the UCB global health research community
  - Developing a research plan and skill-sharing project
  - Multi-cultural leadership and networking

- Outputs: Research plan, skill-sharing project
Support

• Stipend
  The MHIRT stipend covers your costs of living during the summer (plus any visa, vaccination fees you need to pay).
  NO stipend is provided in the Spring semester; you must arrange this yourself
• Funds for your travel to/from foreign site
• Summer housing allowance at foreign site
• Course enrollment fees (at foreign universities)
• Supply budget for your hosting lab (abroad)
Before You Apply

- Research the labs you’re interested in
  - Read the papers, visit the lab websites
  - Check out the foreign collaborators’ websites
  - You are STRONGLY DISCOURAGED from contacting the MHIRT investigators with questions about the program! Applications will be reviewed by an outside committee.

- Ask for letters of recommendation in advance

- If you have questions about the grant or application, email cend@berkeley.edu
Application Process

- **Online application form**: available October 12th
  http://globalhealth.berkeley.edu/mhirt/apply.html

- **Letter of Intent**

- **Transcript**: Unofficial Bearfacts transcript accepted. Transfer and graduate students, include transcripts from previous institutions.

- **FinAid**: Unofficial Bearfacts statement of financial aid/need accepted (optional).

- **Letters of Recommendation**: 1 – 2. Letters should come from academic or professional sources when possible.

- **Resume**
Letter of Intent

1 Page limit, addressing:

- Why you want to conduct research abroad
- The MHIRT research project(s) of interest to you
- Your specific career objectives relating to health disparities, international health, and health science research
- How you will apply your study abroad experiences to your career upon returning to the U.S.
- Why you feel particularly suited or qualified to contribute to this area of research
Letter of Recommendation

- **Start looking now!**
- **How to ask for a letter:**
  - Ask at least 4 weeks before you need the letter.
  - **Note:** Letters will not be accepted after November 13.
  - Provide as much information as possible (e.g., your resume, transcript, description of MHIRT, why you’re applying)
- **Ask someone who can attest to your professionalism and communication skills**
  - Professor whose lab you worked in/UGSId for > Professor whose class you did well in > GSI whose class you did well in > Former employer > Personal contact
Selection Process

- October 1st: MHIRT investigators advertise open positions in their labs.
- November 13: Each applicant submits a single proposal package. You may choose no more than 2 labs/positions to apply to.
- Nov 14-30: Outside review panel selects top 3 applicants for each open lab position.
- Dec 1-11: Top 3 applicants are forwarded to the MHIRT investigators, who conduct interviews with their preferred candidate(s).
- MHIRT investigators make final decisions.
- Dec 19: Approximate date for announcement of winners.
What if I’m Already in a Lab?

- All the collaborations for 2010 are set, BUT you can...
- Talk to your professor
  - Your professor can contact the Berkeley MHIRT professor and collaborating lab, to propose a project that you do in collaboration with all the three labs.
  - The MHIRT Advisory Committee must approve the project
  - You would list this project in your MHIRT application
- Or, work in two labs for the Spring semester (big commitment)
- Or, finish your current lab commitments in the Fall, and begin in the MHIRT lab in the Spring
- **You will be asked on your application if you currently plan to be part of a non-MHIRT lab in Spring 2010!**