

UCSF East Africa Interest Group

Workshop: Training in Research for East African Scientists June 3, 2013

The second quarterly workshop of the newly organized UCSF East Africa Interest Group (EAIG) was introduced by EAIG Chair Craig Cohen, MD, MPH, who shared some relevant background and rationale behind the meeting's focus. Dr. Cohen noted that, among leading academic institutions, UCSF is noticeably underrepresented in its portfolio of (NIH-funded) training grants. At the same time, there is a significant unmet need in the area of research training – from laboratory to epidemiological/clinical to operational research – both for U.S. scholars and fellows as well as junior investigators of our international institutional partners. These facts are coupled with a real opportunity to build on the broad wealth of experience and expertise across campus and beyond (UCB, UCD, etc.), particularly related to collaborations focusing on East Africa, to create strong collaborative teams and develop competitive applications in the future. Dr. Cohen described this meeting's aims as three-fold:

- To inform about UCSF research capacity building efforts in East Africa
- To identify elements of intersection and opportunities for cross-linkages and resource-sharing among UCSF investigators
- To develop new, interdisciplinary trans-UC collaborations

Dr. Cohen challenged the group to come up with a new approach to invigorate and strengthen the competitive process, while identifying emerging and junior investigators to lead the development of successful applications in the future.

The workshop program was structured around the nature of training, although it was acknowledged at the start that considerable overlap exists among the various programs represented. A series of brief presentations described the current UCSF faculty efforts – i.e., courses and “apprentice”-type trainings in epidemiological, clinical, and laboratory-based research – followed by open discussion on what could be done jointly to manage ongoing challenges and synergize efforts.

Presentations and speakers are listed below.

- Building Research Capacity in Uganda through the MU-UCSF/Infectious Diseases Research Collaboration – *Phil Rosenthal*
- Building Basic and Translational Laboratory Capacity at Makerere University's Infectious Diseases Institute – *Stefanie Sowinski*
- UCSF Training in Clinical Research (TICR) Program – *Jeffrey Martin, Aggrey Semeere, Miriam Laker*
- UC Global Health Institute GloCal Health Fellowship: a consortium of UCSF, UCSD, UCLA, and UC Davis – *Craig Cohen*

- UC Berkeley Global Health Equity Scholars Fellowship: a consortium of UCB, Florida International University, Stanford, and Yale – *Lee Riley*
- UC Berkeley Research Training Programs: Center for Global Public Health, Center for Emerging and Neglected Diseases, and Center for Effective Global Action – *Elizabeth Ponder*
- Training in Applied Public Health and Prevention Research through UCSF Global Health Sciences Programs – *Sandy Schwarcz*
- UC Berkeley–UCSF Joint MD/MS Program – *Annie Chang*

Although the original focus of the session was on training of East African colleagues, it became clear that training is almost always bidirectional, with U.S.-based fellows receiving training by doing research at the international sites. An “inventory of resources” summarizing the various UCSF and UCB research training programs represented in the agenda is attached for reference. **[SEE ATTACHMENT]**

Key Discussion Issues

- *Which educational programs in East Africa serve as a research training base for both UC trainees and partner institutions? Which partner institutions in East Africa represent a sustained UC presence?*
- *What are the unmet needs and opportunities? How can we synergize efforts?*
- *How can we maximally balance training curricula to strengthen in-country training, mentoring and faculty development, and online education/distance learning?*
- *How can we best leverage existing FIC/NIH-supported GH training programs involving UCSF (and UCB, UCD, etc.) fellows and scholars?*
- *How best to develop a competitive training grant application, considering the new FIC paradigm and current funding limitations?*

The key themes of the open discussion are highlighted below.

Challenges and Opportunities (in East Africa)

- Limited laboratory capacity: It is difficult to identify trainees entering long-term laboratory research due to limited laboratory capacity and opportunities (i.e., there are two labs in Uganda with modern equipment where most training occurs). Creating state-of-the-art laboratories takes significant start-up investment of time and resources. Equipment breakdown and maintenance is a big issue!

- Limited opportunities and infrastructure for (clinical) research training: African colleagues participating in the workshop shared their perspective that many physicians are simply not aware of clinical research as a potential career path and that no system exists to absorb young researchers. They also noted the challenge in pursuing continuous training while covering various clinical and professional responsibilities and the many urgent public health problems faced on a daily basis. Help is needed to build a platform to protect and nurture an environment that would support clinical research. Biostatistical capacity was cited as a significant unmet need at most institutions.
- Cost factor/value: In-country training is more cost-effective and provides the most value (\$600/month stipend vs. \$50,000 to train in the US). The London School of Hygiene and Tropical Medicine has implemented a new agreement with Makerere University, whereby trainees are offered scholarships in addition to reduced tuition equivalent to that for UK residents – a more affordable option for laboratory-based training. Countries need to see the value of investing in their own infrastructure (e.g., Science Without Borders in Brazil).
- Mentorship of local faculty: Developing the concept of “Mentoring the Mentors” at the institutional level is key. UCSF-GIVI CFAR’s Mentoring Program is undertaking international training of mid/senior faculty, in partnership with other FIC-funded training programs (GloCal) and catalyzing new South-South collaborations in East Africa that will be better able to respond to new opportunities (e.g., FIC’s special RFA for LMIC institutions). Universities can help strengthen existing programs by building competency-based curricula, including training in critical thinking. But development of new faculty is not automatic with curriculum development! African colleagues added that a cultural or “generational” gap exists with regard to the perceived attitude towards mentoring (“babysitting”).
- Locally-relevant public health issues and research priorities: Bidirectional exchange is not common, but would be a great advantage to building capacity while addressing these issues through research training. The World Bank is supporting TA and in-country training by global consortia and GHES’s Sandwich Model is one way to encourage training both in-country and in the USA. UCSF’s Pathways to Discovery website utilizes a template to formalize the “matchmaking” or “twinning” process and can help identify UCSF mentors for trainees. It also facilitates the identification of joint research priorities by in-country partners.
- Cumbersome management of training grants application and administration: UCB’s Center for Emerging and Neglected Diseases (CEND)/Berkeley Alliance for Global Health provides administrative support for the preparation and management of large research grants, including compiling data on economic impact analysis, numerous tables quantifying institutional support, and contributions of multiple UC partners. CEND would be pleased to share lessons learned and/or to participate in a trans-UC working group to develop a more formalized UCSF-UCB collaboration for this purpose.
- GHS commitment to international research training? Where does the training of international scientists and strengthened in-country capacity fit within the UCSF-GHS strategic framework? Aside from the CDC-supported technical assistance initiatives, the primary GHS focus has been on Masters-level training for U.S. fellows.

Outcomes and Recommendations

- **Develop a common strategy and the next generation of faculty with the aim to grow the UCSF (and trans-UC) portfolio of training grants.** Recommendation to create a Senior Peer Advisory Group and develop a roster of junior faculty to be well-positioned to respond to upcoming RFAs. [Cohen, Martin]
 - The senior group – composed of faculty, investigators, and educators with a record of international training grants focused on GH – will serve a collective review function within the EAIG. Proposed members to include all PIs with current D43s (initially): Art Reingold/Lee Riley/ Craig Cohen/Jeff Martin/Phil Rosenthal/George Rutherford;
 - Identify and support interdisciplinary teams comprised of emerging investigators and junior faculty to lead the development of new applications in response to upcoming RFAs;
 - Request administrative support from UCSF Office of Research Administration;
 - Scope out potential funding opportunities in the pipeline (NIH and other funders) and match with the appropriate individuals/teams; and
 - Communication and outreach to the UC research community will be key: (a) to raise awareness of the peer review group’s advisory and review role and (b) be aware of RFAs being considered and applications being developed by PIs.
- **Create a joint administrative core.** Suggestion to create a UCSF-UCB working group to continue dialogue and to put in place a formal, joint framework better equipped to respond to and administer RFAs related to research training in the future. It was suggested that this initiative would lead to shared learning and improved competitiveness. [Cohen]
- **Need to be responsive to new FIC paradigm, more limited in resources and scope, and based on institution-to-institution relationships,** e.g., UCSF-IDI, UCSF-KEMRI, UCSF-MUST and others. Examples of single-focus research areas where UCSF has a competitive advantage may be implementation science or translational research.
- **Foster the creation of national and regional professional organizations.** Creation of a greater critical mass to boost capacity and advocate for greater support is key – e.g., National Society of Immunology or equivalent. [Sowinski]

Co-Chairs:

- Jeffrey Martin, MD, MPH – Professor and Director, Training in Clinical Research Program (TICR), Departments of Epidemiology & Biostatistics, Medicine
- Philip Rosenthal, MD – Professor, Department of Infectious Diseases/Medicine, SFGH

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