

## *News from the IAEH*

### News from the IAEH

*News from the Student Section: Swatting mosquito scientists and the development of more effective North–South collaboration in ecohealth research*

Collaboration may create an environment for collective knowledge, resources, and skills sharing. Therefore, as part of the next generation of international scientists, collaboration is vital in designing and achieving creative research activities. But collaboration must be built upon mutual respect and trust, which requires regular communication, flexibility, patience, and the luxury of learning from one another. Historically, researchers from the global North working in the global South were easily regarded as “mosquito scientists,” foreigners who swooped into low- and middle-income countries, buzzed around collecting blood samples, and flew away, certainly not to be heard from again as they often did not value collaboration enough to invest the time. Such must have seemed a cheaper, easier, and quicker way to do science.

However, new innovative strategies for win–win collaborations can be devised. As graduate students, we have had the opportunity to work with the Kibale Ecohealth Project (KEP) in western Uganda. Through our engagement with KEP, we identified two key features of study design that effectively supported international collaboration: (1) research objectives were sufficiently broad to allow flexibility in priority setting and (2) skill sharing and training were always emphasized. These features have been crucial in avoiding the “mosquito syndrome” that plagued our predecessors.

KEP works to understand how anthropogenic activities influence disease transmission between humans, livestock, and wildlife around Kibale National Park. KEP funding comes from the North, while field research is conducted in Uganda. This situation creates two obstacles to effective North–South partnerships. First, Southern collaborators

are excluded from the creative process of priority setting, since the Northern collaborators developed the research proposal. Second, funding may not be malleable to include southern partners. Unless the funding structure allows for participation of Southern collaborators, we risk reinforcing negative research stereotypes. If researchers from the South are not expected to contribute equally on projects from proposal development through publication, these researchers can be perceived as lazy, less capable, and less trustworthy. This partnership can quickly devolve into paternalistic relationships where researchers from the South depend upon those from the North for funding, analysis, and publication.

As a long-term project, KEP strives to develop projects that are sufficiently specific to warrant support from granting agencies, while remaining flexible to accommodate contributions from local collaborators. New members of KEP often arrive to work on defined projects, yet are always encouraged to help frame new questions. Rather than developing and then executing a project, we KEP students execute a project, then develop a new project, and finally train new students to execute the research they developed. This process ensures that all have shared interest in promoting excellence in research and training. We also strive to balance North–South contributions. While Northern partners bring expertise and opportunities for advanced training that are otherwise not available in Uganda, local partners share a nuanced understanding of local context essential for permitting, budgeting, human resources, and guiding the intellectual trajectory of the project

Despite our best efforts to promote effective North–South partnerships through information and skill sharing, challenges still exist. Chief among these are equal opportunities in funding. While KEP students and collaborators

participate jointly in funded research activities with specific objectives, there is need to create an enabling environment for funding Southern collaborators to ensure that they take advantage of opportunities presented by KEP.

Although graduate students may find difficulty in prioritizing collaboration within the time scale of masters or doctoral programs, North–South collaborations are vital in advancing careers for both parties, as collaboration nurtures novel ideas from different perspectives. Thus, scientific publications should not be the only benchmark for measuring success of North–South collaboration. The sustainability of studied interventions and efforts to promote local capacity should also be recognized as key indicators of success. For projects to be truly collaborative, partners from the North and South must be actively involved at all stages of research including research proposal writing, priority setting, data collection, data analysis, publishing, and long-term strategic planning. Financial decisions must be transparent and both parties should be held to the same standards of accountability. Can we design new funding structures to reward these indicators of project success?

Alex Tumukunde

Makerere University, Kampala, Uganda

Inguilli Aleia McCord

Nelson Institute of Environment, University of Wisconsin-Madison, Madison, WI, USA

A goal of every principal investigator should be to become superfluous. The most positive and satisfying way for this to happen is for one's students to move in new and unexpected directions. This is definitely the case with Alex Tumukunde and Aleia McCord, whose current collaborative

ventures emerged out of their interactions as graduate students with KEP, which I direct. As much as I would like to take credit for their thoughtful insights about international partnerships, I really cannot (a difficult thing for an advisor to admit). There is a North–South partnership born spontaneously of common purpose.

Indeed, I find it ironic (and delightful) that the solutions to the many issues of inequity and imbalance that Alex and Aleia raise are epitomized by their self-motivated decision to write a joint essay on the topic. Moreover, their current activities promise to shift perceptions about the very challenges to North–South partnerships they describe. As an offshoot of their graduate research on primate microbiomes (Aleia) and the ecology of wild suids (Alex), they have discovered a new passion in sustainable energy—Alex and Aleia are leading entrepreneurial efforts to generate biogas in Uganda. While conceived during their time with KEP, these efforts have moved beyond the project's core focus on infectious disease in anthropogenic landscapes.

Aleia and Alex are right on target, I believe, in identifying the practical and ethical shortcomings of North–South partnerships past, including “colonial science,” inequities in skills and training, and funding structures that re-enforce imbalances. The solution I hit upon early in my career was to foster positive relationships between students from the North and students from the South, in the hopes that the next generation of scientists would engineer creative and lasting solutions—looks like it is working.

Tony L. Goldberg

Department of Pathobiological Sciences, University of Wisconsin-Madison, Madison, WI, USA