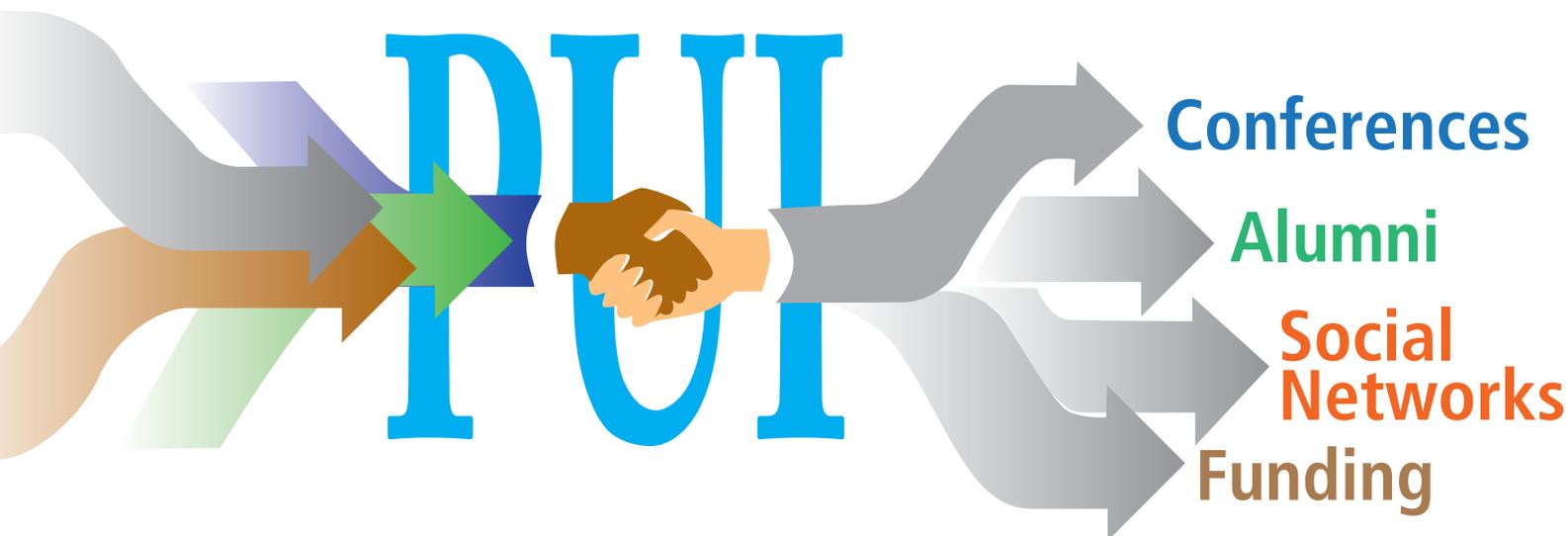


International Research:

How Building Relationships Can Expand Opportunities for PUIs

By Mark Roltsch and Steven M. Gerardi

The perceived need for international research is on the rise, especially in biological and health sciences (Ramirez, 2007; Lombe, Newransky, Crea, & Stout, 2013). In support of this perceived need, funding is available for international research. The National Institutes of Health (NIH), through the Fogarty International Center (n.d.) and various NIH Institutes, provide opportunities to apply for research and training funds for both U.S. and foreign researchers in the developing world. Today, NIH's Fogarty International Center "funds some 400 research and training projects involving more than 100 U.S. universities." Last year NIH funded \$198,587,000 in grants to foreign countries (NIH Research Portfolio Online Reporting Tools, 2013). The National Science Foundation (NSF, n.d.) also has several programs to support collaboration between US and foreign institutions. The Office of International and Integrative Activities (IIA) at the NSF currently has 597 active grants. A review of that list revealed one from a PUI, a grant to CUNY Medgar Evers College for \$13,958 entitled Developing new research collaboration with the University of Malaya. At present, despite the fact that funds are available for international research, few of the studies currently being funded are being done in collaboration with researchers from PUI's. However, it does not have to stay that way. Researchers at PUI's can take practical steps to increase their chances of getting a piece of the international research funding pie. This article offers some useful tips for researchers and research administrators in building relationships with potential international research collaborators in order to identify and to expand upon opportunities for PUI's to engage in international research.



Building Connections

Conducting international research requires collaboration with international partners. For someone at a PUI who is considering the possibilities of conducting international research, this requirement may seem like an insurmountable barrier. To overcome this challenge, researchers must seek out and build connections with potential international collaborators. For example, when the first author worked at the National Heart Lung and Blood Institute (NHLBI)/ NIH, he was involved with the review and training development of a

global network of ten Collaborating Centers of Excellence (CCE; NHLBI, 2013). Each CCE paired an academic institution in a developed country with a partnering institution in the USA. The CCE's were tasked to develop infrastructures for research and training to enhance their capacity to conduct population-based or clinical research to monitor, prevent, or control chronic diseases. Each year the primary investigators and trainees from the CCE's met to discuss the accomplishments of the centers and to collaborate on research. Through these meetings, the first author

developed friendships with a number of investigators, post-doctoral fellows, PhD students, and student mentors. Connections such as these are fertile ground for nurturing future international research projects. The importance of the role of relationship building cannot be overstressed. In a study of intimate partner violence in Canada and Ethiopia, Bender et al (2011) found "that the best international collaborations may be those that are understood within system realities but are approached *first* as social relations between people who respect and trust one another" (p.73).

So how does someone at a PUI develop such relationships? Thinking back to one's undergraduate years, a person may recall having a desire to establish new relationships of the romantic variety. He or she may also recall that the odds of being successful in this endeavor were greatly enhanced by getting out of the dorm room and going places where they were apt to meet people with similar interests. While some time has passed, and motives have changed since the undergraduate years, the ways to establish new relationships are much the same. In order to develop relationships with potential international collaborators, faculty have to go out and meet international researchers with similar interests! One great way to connect with potential collaborators is to meet at conferences in the faculty member's field.

Connecting At Conferences

Conferences are an obvious place to make connections with people with similar research interests. The best place to make connections at conferences is at poster sessions. An aspiring collaborative investigator can review the poster abstracts in advance to ascertain potential international research posters of interest. Poster presenters are typically eager to discuss their research, especially with an informed researcher with similar interests. Even if the poster presenter is a student, it is likely that their research adviser is close by. Additionally, one is likely to meet other scholars with similar interests who are also visiting the same poster presentation. Many researchers have made productive connections this way.

As in any relationship, potential research collab-

orators begin feeling each other out for their suitability to carry on a sustained relationship. Just like in dating, if the two don't "hit it off," the relationship is likely to go no farther than the first meeting. However, if there is a spark of interest, potential collaborators may decide to take their relationship to the next level. This may include an invitation to speak or work together on a small project. For example, after meeting someone at a poster session, the first author was invited to speak at the presenter's school in Thailand. After developing a sense of mutual respect and trust, the relationship that started at the poster presentation has continued to evolve to the point where they are presently collaborating on a proposal for a small international grant from their professional association. It is worth noting that these small beginnings are important for larger scale collaborations in the future. For example, some professional associations offer international grants specifically to nurture these types of relationships. When reviewing NIH proposals, reviewers often ask: How much work have the PI's done together and what have they published together? Given this, working together on a writing project is a good first step for potential research collaborators to establish a working relationship in the eyes of a grant reviewer.

Connecting With International Alumni

A second way to make connections with potential international collaborators is by cultivating relationships with former international students or international alumni from the PUI who have gone on to earn PhD's or MD's and returned to their

home countries. Institutions' alumni associations will be helpful in making such connections. Former students are a great source of potential collaborators because researchers already have an established relationship and work history together and may have already collaborated on poster presentations or publications. Other former undergraduate students and alumni may not have gone on to graduate school but may now be in leadership positions in foreign governments or corporations that may be interested in collaborating on research projects. USAID supports the development of these types of collaborations.

Connecting Through Academic Social Networks

A third way to make connections with potential international collaborators is to use one of the social networks developed specifically for academics and researchers: Academia.edu and ResearchGate.net. These social network sites were developed expressly for scientists and researchers. These sites afford researchers the opportunity to share papers and data sets, and to ask questions or have online conversations about topics of interest. Both sites were launched in 2008 and already have several million users. In a recent online article on the collaborative power of ResearchGate, Leena Rao (2013) highlights the example of how Orazio Romeo, a researcher in Italy, and Emmanuel Nnandi, a PhD student in Nigeria, met through ResearchGate and collaborated to discover a deadly plant yeast that had killed an infant in Nandi's hometown. In another example, Rao points out how "Sohail Malik (Po-

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(International) Research Administration...By the NUMBERS

\$716,301,000... the amount of United States higher education R&D expenditures from foreign sources in 2011, as identified in the latest NSF HERD Report. This is up from **\$649,293,000** in 2010, a rise of **10.3%**.

844,400, the number of researchers in Japan in 2012, up **0.2%** from 2011.
124,700 of those researchers are female.

R&D performed in East/Southeast Asia and South Asia represented only **24%** of the global R&D total in 1999, but accounted for **32%** in 2009, including China (**12%**) and Japan (**11%**).

\$30,043,000,000... the amount of gross domestic spending (Canadian Dollar) on research and development in Canada in 2012, the latest available data from the Canadian GERD Report.

In 2010, R&D intensity (R&D expenditure as a percentage of GDP) in the EU-27 stood at **2.0%**. Among the EU Member States, only Finland (**3.87%**), Sweden (**3.42%**) and Denmark (**3.06%**) exceeded the EU goal of devoting 3% of GDP to R&D.

Sources:

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Want to share numbers? Email Heather Kubinec at heather.kubinec@research.uci.edu

litical Science and Engineering, Pakistan) was looking for help in statistics, when he found Michael Sandholzer (Radiologist, UK) on ResearchGate. Together, they worked on Malik's project to identify risk factors generating terrorism and insurgency in Pakistan. Their article has been accepted by a peer-reviewed journal and will appear in 2014."

Finding Funding for International Research

NSF offers several funding opportunities to foster international relationships and collaboration on its website <http://www.nsf.gov/funding>. One such program is called Catalyzing New International Collaborations (CNIC). This program offers funds for brief international visits or workshops which are expected to lead to research proposals submitted to NSF. Other NSF funding opportunities include the International Collaboration in Chemistry between US Investigators and their Counterparts Abroad (ICC) and the International Research Experiences for Students (IRES) program. Additionally, the NIH Fogarty International Center website www.fic.nih.gov is a great place to direct faculty to look for other funding opportunities. The site lists NIH international opportunities and also lists non-NIH international prospects. Some other places for faculty to look for funding opportunities are the Earthwatch Institute www.earthwatch.org which supports scholarly research worldwide in the biological, physical, social, and cultural sciences through a variety of grants; and the American College of Sports Medicine's Oded Bar-Or International Scholar Award. This award allows professionals to gain technical expertise and/or scientific knowledge through an international exchange program.

Summary

Hopefully, this brief discussion will encourage you to consider the potential opportunities in international research. If international research aligns with your institution's business plan, then consider this quote attributed to Ross Perot (n.d.): "Business is not just doing deals; business is having great products, doing great engineering, and providing tremendous service to customers. Finally, business is a cobweb of human relationships." Although funds are available to support international research, PUI grant success is dependent upon how effective the institution is at building their web of human relationships. So, if research is your business, get out there and start building! ■



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