Executive Summary

Best Practices in International Research Experiences for Graduate Students





Image: iStock by <u>license</u>. This workshop was supported by NSF award # <u>1840364</u>.

Executive Summary

In order to provide information to the higher education community on the effective development of global research competencies in the STEM research workforce, an NSF-funded workshop (OISE1840364) was held in Alexandria, VA on January 10-11, 2019 entitled "Best Practices in International Research Experiences for Graduate Students." Workshop activities were structured to gather information on three fundamental questions related to international research experiences for students enrolled in U.S. graduate schools:

- What are the appropriate timing and duration for introductory, follow-on, and subsequent international research experiences during a STEM PhD student's training? What about a STEM master's student?
- What is the appropriate role of the student's faculty research advisor (aka PI, research mentor) in identifying, defining, permitting, and evaluating the advisee's international research activity?
- What are the appropriate entities for assessing the international research activity experiences, defining the appropriate assessment tools, collecting and archiving data, and conducting longitudinal studies on international research experiences?

The workshop was attended by over forty experts in the area of international academic activities and included presentations, discussion sessions, and a report-out of a pre-workshop survey. These inputs were used to generate the following set of best practices that serve as the report recommendations:

- In considering the timing and duration of a graduate student's research visit, an **evaluation of their interpersonal and cognitive skills development** should be undertaken in order to determine their readiness for the experience.
- The intended outcomes, skills development, and competencies of an international research experience should be enumerated and a corresponding **evaluation plan** with both formative and summative components developed prior to the research visit.
- A **decision-tree approach** should be used to assist students in determining the optimal timing and duration in order to account for the numerous factors that contribute to these important structural components of an international research visit.
- As with all facets of a positive advisor-advisee relationship, a graduate student's research advisor should serve as an advocate for their advisee's international research experience. This includes assessing their readiness, articulating expected outcomes, and facilitating an appropriate international activity to the best of their ability.
- Institutions should provide training for research mentors on how best to facilitate international
 research experiences for their graduate students that leverages institutional expertise on such logistical
 issues as health and safety abroad, deemed export control, immigration status of participants, and the
 responsible conduct of research in an international setting. Funding agencies could provide grants
 directly to the institutions, consortia, or regional/national hubs for this research mentor training.
- Programs that sponsor international research activities for graduate students should collect, update, and make freely and easily accessible to current and prospective graduate students information about outcomes of the activity that is collected in a standard format, is fully transparent, and can be easily accessible and transferable across multiple computer and statistical analysis platforms.