



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 19-029

Dear Colleague Letter: Seeking Community Input for International Research Experiences for Graduate Students

December 11, 2018

Dear Colleagues:

In an era of globalization of research excellence, global competence is an increasingly important component of professional development for the U.S. science, technology, engineering and mathematics (STEM) workforce. International research collaborations with investigators around the world help U.S. graduate students acquire new knowledge and skills and build networks that can enhance and expand future career pathways.

The National Science Foundation (NSF) has offered international research opportunities to U.S. graduate students in several programs, including institutional awards such as International Research Experiences for Students (IRES) and Partnerships for International Research and Education (PIRE) in which the Principal Investigators (PIs) of the awards select the student participants. The Foundation also offers fellowship programs such as Graduate Research Opportunities Worldwide (GROW) and the East Asia and Pacific Summer Institutes (EAPSI) for U.S. graduate students, in which the students applied directly to NSF and NSF selects the recipients.

All these programs have had meaningful positive impact in strengthening key 21st century skills in their student participants. At the same time, the programs face challenges. For example, some of the programs were undersubscribed, such as GROW. In the case of those programs that provide support to individual students, the impact of the research opportunities is difficult to extend beyond a specific beneficiary. NSF's desire is to make sure that these opportunities are available to as many students as possible and that the programs are structured for maximum benefit. Our future planning is focused on enhancing international research opportunities for graduate students beyond the small numbers supported in the existing programs.

NSF has taken several steps in this direction:

1. February 2016: NSF's Division of Graduate Education (DGE) and Office of International Science and Engineering (OISE) held a joint workshop with the Council of Graduate Schools (CGS) and the North American Office of the German Research Foundation (DFG) to discuss evaluation of international research experiences. The goals of this workshop were to better justify the investments and to understand the impact these international experiences have on individual career and STEM workforce development.
2. October 2017: OISE revised its long-standing International Research Experiences for Students (IRES) program to expand opportunities for graduate students. In addition to the traditional faculty-led research cohort model, IRES now invites proposals for Advanced Studies Institutes and New Concepts in International Graduate Education. The new approaches enable universities and professional societies to work together to develop proposals tailored to the needs of their graduate communities for international research-related professional development opportunities
3. January 2019: NSF is funding a workshop on "Best Practices in International Research Experiences for Graduate Students."

These planning and programmatic activities will all contribute to the development of a new approach on international experiences for graduate students. NSF's new approach has three goals for graduate education:

1. To Advance Science

International research experiences should occur in settings and locations that are appropriate to the nature of the science; these experiences should build graduate students' research capacity and global perspectives.

2. To Enhance the Educational Experience

These experiences should introduce graduate students in science and engineering to international research opportunities early in their careers so that they are able to forge long-term collaboration with international science and engineering researchers for mutually beneficial outcomes.

3. To Improve Professional Development

The experiences should contribute to the professional development and future career opportunities of young scientists and engineers.

To ensure that all stakeholders' perspectives are considered, NSF will target our outreach across these communities:

- Researchers working with graduate students;
- All graduate students, regardless of prior international experience; and

- Representatives of organizations that fund international graduate student experiences.

NSF would also like to invite input from the scientific community on this new approach. Comments from the interested community should be submitted by January 31, 2019. Please focus your comments on mechanisms by which NSF can meet its three goals, as listed above.

Participation is voluntary and comments received are intended for NSF internal use only. Comments received will not be posted publicly and the names of commenters will be protected from public disclosure to the extent permitted by law. Succinct responses are most useful, but there are no formal restrictions on the form or length of comments.

Please send comments to:

International Graduate Research Experiences Review Input

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Sincerely,

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