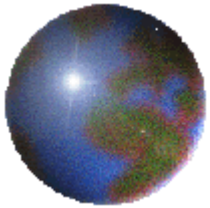


International Research & Education Collaboration: Opportunities & Resources at NSF

Anne Emig
Program Manager for Japan
East Asia & Pacific Regional Cluster
Office of International Science & Engineering (OISE)
aemig@nsf.gov

NSF and International Engagement

NSF support for international collaboration aims to:

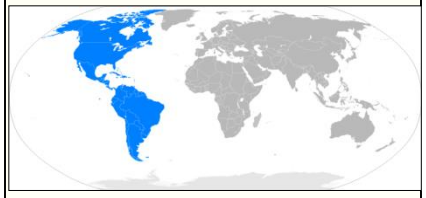
- Advance the FRONTIERS of Science and Engineering
  - ACCESS to unique expertise, facilities, and phenomena
  - LEVERAGE limited resources
  - EXCHANGE insights and techniques
- Prepare a GLOBALLY-ENGAGED U.S. S&E workforce
  - NURTURE capable young researchers with strong networks overseas
  - DEVELOP a global perspective
  - FACILITATE mobility
    - Brain circulation

International Science and Engineering (ISE)

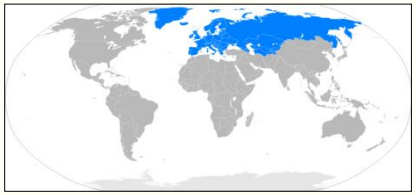
OISE

Overseas Offices
Paris
Tokyo
Beijing

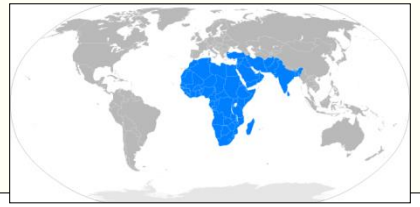
Americas



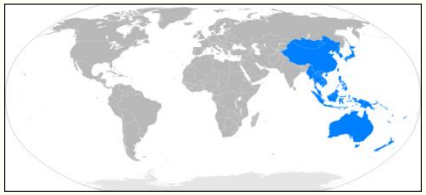
Europe and Eurasia



Africa, Near East, and South Asia



East Asia and Pacific



Global Initiatives

http://www.nsf.gov/div/index.jsp?div=OISE

Office of International Science & Engineering

Internal

- Support NSF Directorates and Offices
- Leverage Resources and Expertise
- Test New Models

External

- Engage the US Research Community
- Strengthen Partnerships with Foreign Counterparts
- Cooperate with other U.S. Government Agencies

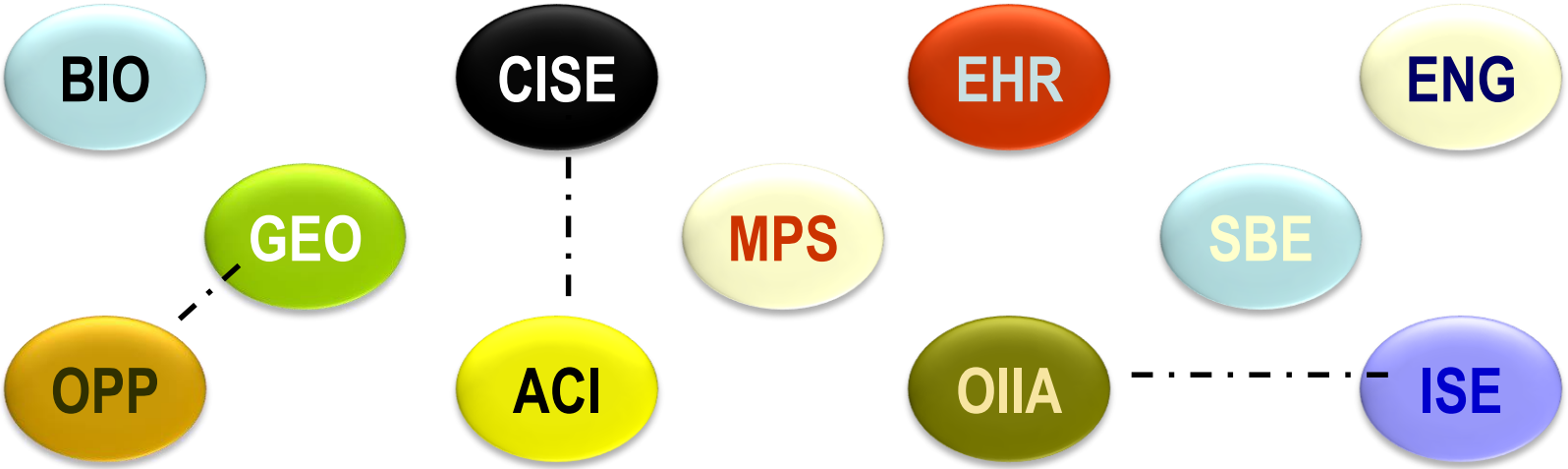
Goal and Core Values for Collaboration

- GOAL: higher impact than would be possible without the partnership
  - Leverage synergistic expertise to enable more innovative outcomes
- VALUES:
  - Intellectual partnership
  - Engagement of students, junior researchers
  - Mutual benefit

NSF Funding for International Activities

Most international research and education activities are **funded by NSF disciplinary programs**:

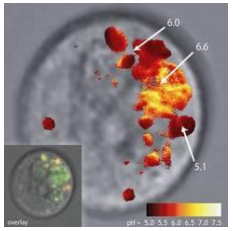
- As part of regular awards
- As supplements to regular awards

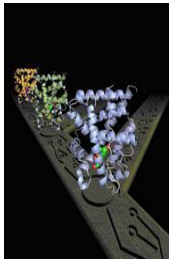
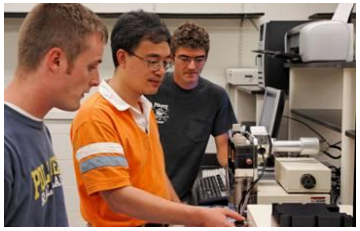
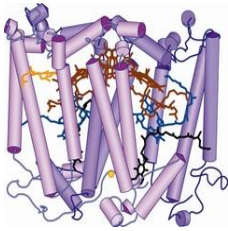


Some NSF-External Partner Coordinated Funding Opportunities

- *Collaborative Research in Computational Neuroscience*
- Partnerships for International Research and Education (PIRE)
- Belmont Forum Collaborative Research Action
- Graduate Research Opportunities Worldwide (GROW)
- Partnerships for Enhanced Engagement through Research (PEER)
- Dimensions of Biodiversity





Developing an Internationally Engaged Workforce

- International Research Experiences for Students (IRES)
- East Asia Pacific Summer Institutes (EAPSI)
- Graduate Research Opportunities Worldwide (GROW)
- (International) Postdoctoral Research Fellowship Program

East Asia & Pacific Summer Institutes

EAPSI:

- Introduce U.S. students to S&E research in East Asia & Pacific
- Foster student-initiated professional relationships to facilitate future international research collaborations
- 8-10 week summer research program in 7 locations
  - Australia (30 positions), China (40), Japan (65), Korea (25), New Zealand (15), Singapore (15), Taiwan (25)
- Open to grad students who are U.S. citizens or permanent residents
- Partnership between NSF and counterpart funding agencies

Graduate Research Opportunities Worldwide

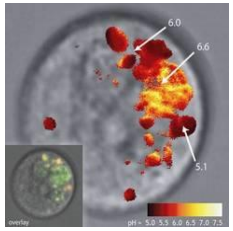
- GROW offers opportunities for 3-12 month international research collaborations to NSF Graduate Research Fellows
- 15 Current Partners
  - Australia, Austria, Brazil, Chile, Denmark, Finland, France, India, Ireland, Japan, Korea, Mexico, Netherlands, Norway, Singapore, Sweden and Switzerland
- Expanding partnerships for future
- Contact: grow@nsf.gov

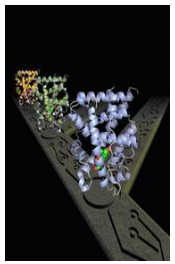
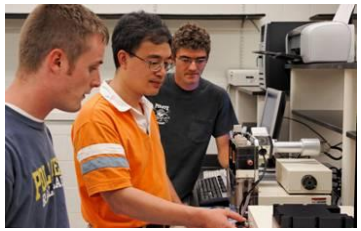
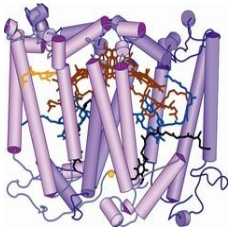
GROW
NSF Graduate Research Opportunities Worldwide

Some Tools for International Research

- **Partnerships for International Research and Education (PIRE)**
- **Science Across Virtual Institutes (SAVI)**
- **Global Venture Fund (GVF)**



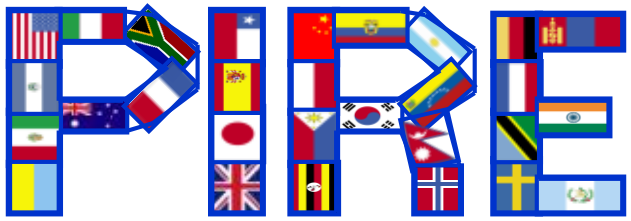


Partnerships for International Research and Education

PIRE

- ISE-managed flagship research program
- Frontier research that leverages complementary expertise of all partners
- Extensive overseas research opportunities for US students/early career researchers
- 5 year awards; average award $4.5M
- ~50 active awards across all NSF disciplines
- Biennial competition next run in FY2016



Science Across Virtual Institutes (SAVI)

Platform for teams of NSF-funded investigators to:

- ***Network*** with partners abroad
- ***Leverage*** *resources* to advance shared research interests
- ***Engage students*** in international collaboration.
- SAVI is a mechanism, not a stand-alone program
  - NSF Directorate and OISE coordinated support

Global Venture Fund (GVF)

- **INTERNAL** NSF Mechanism
- **Co-funding** of well-reviewed proposals with international collaboration
  - New and renewal proposals
  - Supplement requests
  - RAPIDs, EAGERs
  - Workshop, conference proposals
- $10,000-$50,000, in principle
- Contact OISE country program officer

Some Keys to Successful Collaborations

- Top-notch science question that leverages synergistic resources of all partners
- Broader impact through collaboration
  - Student, early career research engagement
    - Prepare and mentor (domestically, internationally)
  - Other opportunities?
- Prepare early for special requirements
  - Funding opportunity
    - Separate parallel proposals? Single joint proposal? Other?
    - Documents: Letters of support, biosketches, etc.
  - Tough questions: don't put off!
    - Logistics: Who does what when? Who pays for what?
    - Data: Whose is it? How is it stored, archived, etc.? Public access requirements?
    - Intellectual property: Who owns what?
- Communicate, communicate, communicate!

International Science and Engineering (ISE)

ISE Home
About ISE
ISE Advisory Committee
View ISE Staff

ISE Resources

Staff by Region, Country & Program
Regional Opportunities
NSF Overseas Offices
- NSF Europe Office
- NSF Tokyo Office
- NSF Beijing Office

NSF-wide International Information
Student & Early Career Information
International Postdoctoral Research Fellowships
Counterpart Science Agencies

International Science and Engineering (ISE) Section

About International Collaboration & Funding at NSF

NSF highly values international collaboration, as it is critical to keeping the United States globally competitive at the frontiers of knowledge, leading to transformational S&E breakthroughs.

ISE serves as the focal point for international collaborative activities across NSF while working across the Foundation to co-fund awards and supplements in cooperation with NSF's disciplinary directorates.

To fulfill this unique role, ISE hosts three overseas NSF offices. Located in Paris, Tokyo, and Beijing, these offices promote collaboration among U.S. and foreign scientists and engineers, serve as liaison between NSF and its overseas counterparts, and report on developments in the international science and engineering community.

Links to the international offices, the ISE staff directory, and other ISE resources, are on the left side of this page.

Investigators based at a U.S. research institution may include international dimensions in new proposals that they intend to submit to NSF's disciplinary directorates or to ISE, or they may request supplemental funding for their existing NSF awards. NSF can support the costs associated with participation of U.S.-based researchers (including students) engaged in international collaboration. U.S. investigators are advised to consult early in the application process with both the disciplinary program manager and an ISE country program manager.

Proposals for international collaboration should fully address the first criterion below, as well as one or more of the subsequent criteria:

- True intellectual collaboration with foreign research partner (Proposals must include foreign partner's biosketch & project role. If a foreign institution will

For Further Information

aemig@nsf.gov

Thank You!