NSF’s Mechanisms for Collaboration

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International Science and Engineering (ISE)

China- US Collaboration meeting
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Maryland
Outline

- Importance of International Collaborations
- NSF organization and ISE organization
- Mechanisms for supporting international engagement
- International Programs
  - ISE programs
  - EHR Programs
  - Other Programs
Join Resources
- Access to unique facilities and equipment
- Share costs and risks
- Exchange techniques and insights

Build Capacity
- Strengthen/Expand knowledge base
- Attract talent
- Boost S&T-led economic performance

Achieve Objectives
- Address national and global problems
- Develop synergy among parties
- Enhance research and education
- Advance personal/professional goals

*Keep the United States globally competitive at the frontiers of knowledge by increasing international partnerships and collaborations.*

*NSF Strategic Plan, Performance Goal #3*
Core Values for International Engagement

- Intellectual Partnerships
- Mutual Benefit from expertise, facilities, or resources
- New international collaborations
- U.S. Students & Researchers gain international experience
- Networking to link expertise and resources
International Science and Engineering (ISE) is organized by global regions.
Mechanisms for supporting International Engagements

- Leverage NSF funds with domestic and international partners
  - Science Across Virtual Institutions (SAVI)
  - Early career scientist engagement (NSF/ERC MOU)
  - Partnerships for Enhanced Engagement in Research (PEER)

- Leverage NSF funds among NSF directorates
  - Catalyzing New International Collaborations (CNIC)
  - Global Research Opportunities Worldwide (GROW)
  - Miscellaneous co-funding and supplements

- ISE-managed programs for international activities
  - East Asia and Pacific Summer Institutes (EAPSI)
  - International Research Experiences for Students (IRES)
  - Partnerships for International Research and Education (PIRE)
Mechanisms for supporting International Engagements

- Dear Colleague Letter (DCL)
- Grant Solicitation
- Fellowships
- Supplements to existing grants
- RAPIDs
ISE Programs

- For students
  - EAPSI
  - IRES

- New international collaborations
  - CNIC

- International engagement
  - PEER
  - PIRE
International Research Experiences for Students (IRES)

- Faculty organize an international research experience for U.S. undergraduate/graduate students
- Scale of Funding: $50,000 per year for 3 years

East Asia Pacific Summer Institutes (EAPSI)

- Supports Graduate students (Ph.D. or M.S.) to conduct research overseas (8-10 weeks)
- Students can work with hosts in Australia, China, Japan, South Korea, New Zealand, Singapore, or Taiwan
- Scale of Funding: $5,000 stipend, travel expenses
Supports initial phases of **NEW international collaboration**

- Initial data gathering activities
- Proof-of-concept
- Planning visits
- Research visits
- Scale of funding: $10k-$75k

Successful result is follow-up full Directorate proposal

- Must contact cognizant NSF Directorate **before** CNIC submission
- Ideally identify another program to continue the collaboration
Partnerships for Enhanced Engagement in Research (PEER)

- Support scientists in developing countries who work with NSF-funded scientists
- Build scientific capacity and empower researchers in developing countries to use science and technology to address local and global development challenges
- Link to NSF-funded research
- USAID PEER-Science:
  - Train students and faculty
  - Equip laboratories and field stations
  - Fund research
  - Build scientific networks
- Administered by The National Academies
Senior researchers (and team)

- Bold, forward-looking research
- Facilitate student participation in international research collaborations
- Strengthen the capacity for mutually beneficial international collaborations
- 50+ PIRE awards have engaged collaborators in more than 70 countries
- Typically, five-year duration and average total budget of ~$3.0 million
- 1 Award per institution
Graduate Research Opportunities Worldwide (GROW) program

- Support for GRFP students to conduct research overseas
- USAID partnership
- In country support by partner agency
- Scale of Funding: $5,000
Additional programs that supports interdisciplinary research

- CAREER
- EAGER
- RAPID
- INSPIRE
- SAVI
- EFRI
- ERC
Keys to successful funding of international collaborations

• **Scientific Merit -- Good Idea**
  • Address how the collaboration will enhance the research
    - Value added
    - Mutual benefits

• **Obtain commitment from foreign collaborators**

• **Involve U.S. students, junior researchers**
  - Meaningful attention to diversity
  - Prepare, mentor, and assess
  - Pay them - travel, living costs, stipends

• **Know and observe special rules**
  - Visa regulations
  - Import and export rules

• **Work with others in your institution**

• **Consult NSF staff**
  - Disciplinary Program Officer
  - International Program Officer
Thanks!

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