Supporting International Collaborations for U.S. Researchers at the National Science Foundation
“International cooperation in science is not a luxury; it is a necessity – and the foundation for the future.”

Arden L. Bement, Jr.
NSF Director
May 2006

Investing in America’s Future
Strategic Plan FY 2006-2011
NSF 06-48

Strengthen the nation’s collaborative advantage by developing unique networks and innovative partnerships...both nationally and internationally, to leverage intellectual capabilities.
Advance the FRONTIERS of Science and Engineering

- ACCESS to unique expertise, facilities, and phenomena
- LEVERAGE limited resources

Prepare a GLOBALLY-ENGAGED U.S. S&E workforce

- DEVELOP understanding of science abroad
- NURTURE capable young researchers with strong networks overseas
- RETAIN young researchers in S&E
International Collaboration

Integrated throughout NSF

- Integral part of new proposals to NSF research or education programs
- Supplements to active grants
- New proposals to the Office of International Science and Engineering
Examples of NSF support for international activities are numerous.

To name just a few...
- Materials World Network
- International Collaborations in Chemistry
- New international component of I/UCRC program
- International Supplements to IGERT, other awards
Office of International Science & Engineering

- Serves all NSF
- Funds research and education in all areas of NSF-funded S&E
- Regional Organization
  - Program Managers have country portfolios
- 3 NSF Overseas Offices
  - Tokyo, Paris, Beijing
- Relatively small budget
  - OISE programs
  - Cofunding with directorates
International science and engineering research and education activities are funded by all NSF directorates and offices.

Investigators seeking funding for international collaborative research may include an international component in new proposals submitted to their relevant NSF research program, or request supplemental funding to add international collaboration to projects supported by current NSF grants.

OISE works closely with other NSF directorates and offices to co-fund innovative, catalytic new awards and supplements that promote research excellence through international collaboration and develop the next generation of globally engaged U.S. scientists and engineers. OISE criteria for co-funding include:

- **True intellectual collaboration with a foreign partner** (The foreign partner’s 2-page biographical sketch, communication outlining their role in the project, and a letter of endorsement from the foreign institution should be included.)
- **New** international collaborations, as opposed to well-established ones;
- Benefits to be realized from the expertise and specialized skills, facilities, and/or resources of the foreign collaborator; and
- Active research engagement of U.S. students and junior researchers at the foreign site.

Investigators should consult early in the application process with both the relevant disciplinary program manager and OISE country program manager.
Key elements for OISE funding

- Collaborative
- Catalytic
- Synergistic
- Engages U.S. students, junior researchers in international research
Planning Visits

- NSF 04-035
- Supports short-term travel by small teams of U.S. researchers to plan new collaborations
  - Assess expertise, sites, facilities, data, experimental protocols, etc.
  - Plan next steps
- Intended outcome: proposal to NSF research directorate
  - Research directorate input critical
- $20,000 maximum
- No deadline; proposals accepted anytime
Workshops

- NSF 04-035
- Small-scale, focused meetings
  - Identify areas of joint research interest
  - Develop new collaborations
- NSF supports U.S. faculty and students
- Intended outcome: proposal to NSF research directorate
  - Research directorate input critical
- $60,000 maximum
- Target dates: 9/20, 2/20, 5/20
Unsolicited Proposals
Modeled on NATO Advanced Studies Institutes
Short (2-4 wks) courses for advanced graduate students, postdocs, junior researchers
Funding available for both U.S. and foreign participants
$100,000 max
International Research Fellowship Program (IRFP)

- NSF 06-582
- Introduce young scientists to international research opportunities
- Supports 9-24 months overseas research
  - Stipend, travel, subsistence, some dependent support
- U.S. citizens & permanent residents
- Applications from women and minorities, and for work in developing countries are especially encouraged.
- Deadline: second Tuesday in September
International Research Experiences for Students (IRES)

- NSF 04-036
- Supports small groups of students for focused research experiences overseas
- Open to graduate and/or undergraduate students
- $150,000 max ($50,000 per year for up to 3 years)
- Target dates: 9/15 and 2/15
Doctoral Dissertation Enhancement Program (DDEP)

- NSF 04-036
- Provides travel support for doctoral research overseas
- U.S. faculty mentor is PI on proposal
- $15,000 max.
- No deadlines: Proposals accepted anytime
East Asia and Pacific Summer Institutes (EAPSI)

- NSF 07-584
- Overseas research experiences for U.S. graduate students
- ~ 8 weeks
- Australia, China, Japan, Korea, New Zealand, Singapore and Taiwan
- $5000 stipend plus travel and living allowances
- Deadline: second Tuesday in December
Program solicitation: NSF 09-505

Objectives

• Research excellence via international partnership
• Development of diverse, globally engaged U.S. S&E workforce
• Strengthened international engagement by U.S. institutions

Five year awards, no budget ceiling

• Request the amount needed to achieve project goals
• OISE’s PIRE budget for FY10-14 is $40,000,000 in total

Two-stage process

• Preliminary proposals deadline Feb 26, 2009
• Invited full proposals (83) received October, 20
Who May Apply?

- U.S. academic institutions that granted at least one Ph.D. in a science or engineering field since 2006
  - 3 preliminary proposals per institution
- Researcher may be PI, co-PI or senior personnel on no more than 1 preproposal

Other Relevant Information

- 32 active PIRE awards (see PIRE webpage for details)
- Lead institutions strongly encouraged to partner with two- and four-year colleges, industry, museums, others
- PIRE webcast held Dec 5 (full webcast and transcript available soon on NSF PIRE webpage)
Cautions...

**OISE Does Not Typically Fund**

- Study abroad programs
- Sabbaticals
- Costs of the foreign counterpart
  - In rare cases, exceptions may be possible
    - Consult OISE program manager before submitting proposal
Keys to success with OISE

- Top-notch science question
- True intellectual collaboration with foreign partner
  - Include biosketch and letter(s) of support from key collaborator(s)
  - Show how collaboration enhances research
- Involvement of U.S. students, junior researchers
  - Prepare, mentor, and assess
  - Support travel, living costs, stipends
- Attention to diversity
- Working with others in your institution
- Consultation with OISE program officer early in process
Thank You!

http://www.nsf.gov/oise