

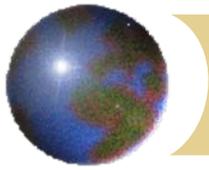
Overview of OISE

NSF Regional Grants Conference

March 2012

Kathryn Sullivan

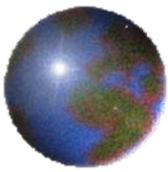
NSF/OD/OIA



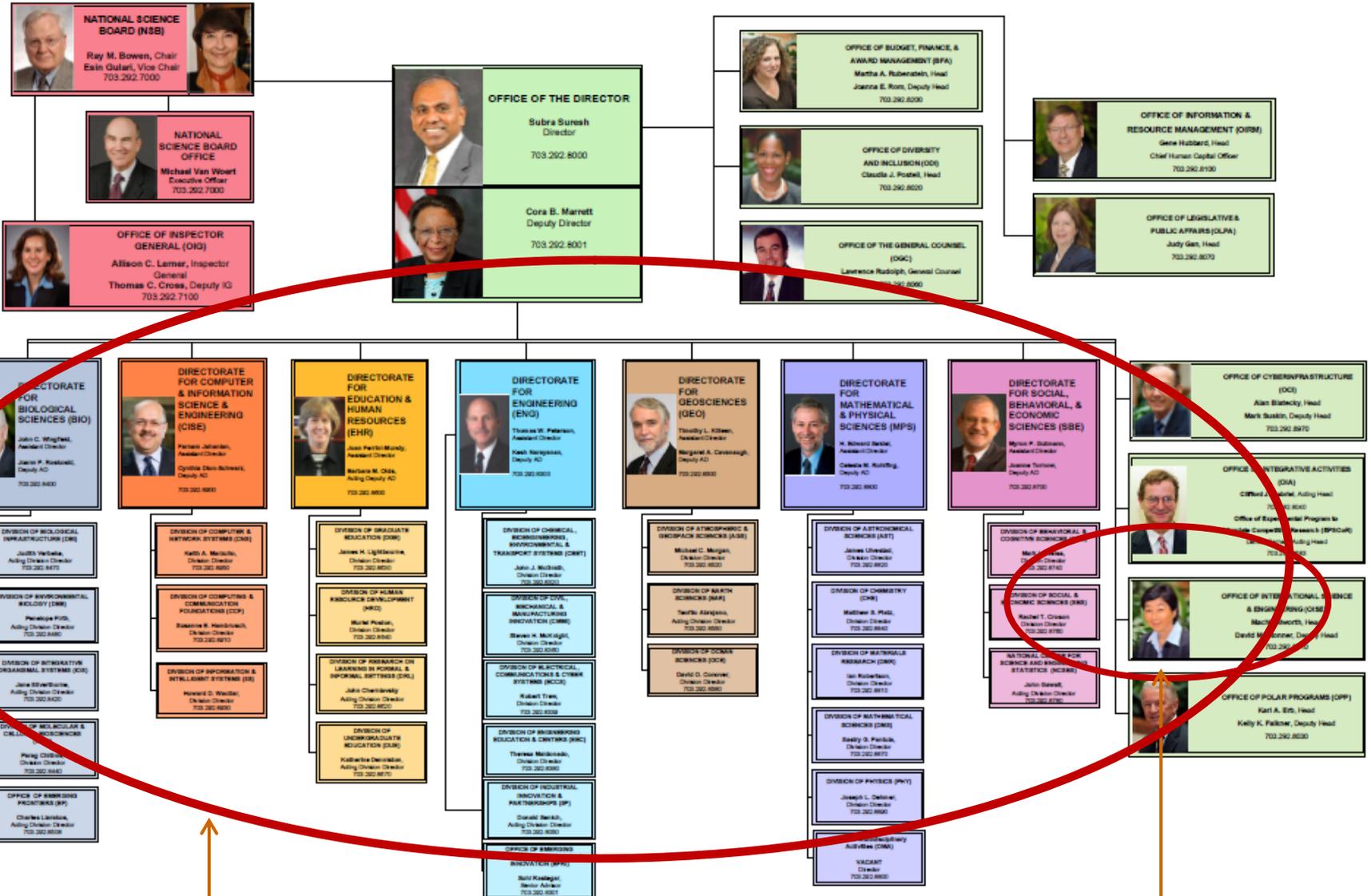
NSF International Objectives

- Advance the frontiers of science and engineering
- Prepare a globally-engaged U.S. S&E workforce
- Access to unique expertise, facilities, phenomena and data
- Build and strengthen effective collaborations, networks and institutional partnerships
- Leverage resources
- Contribute to broader USG foreign policy efforts



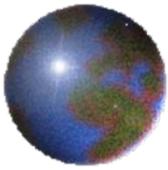


Support for International Research Reflects OneNSF

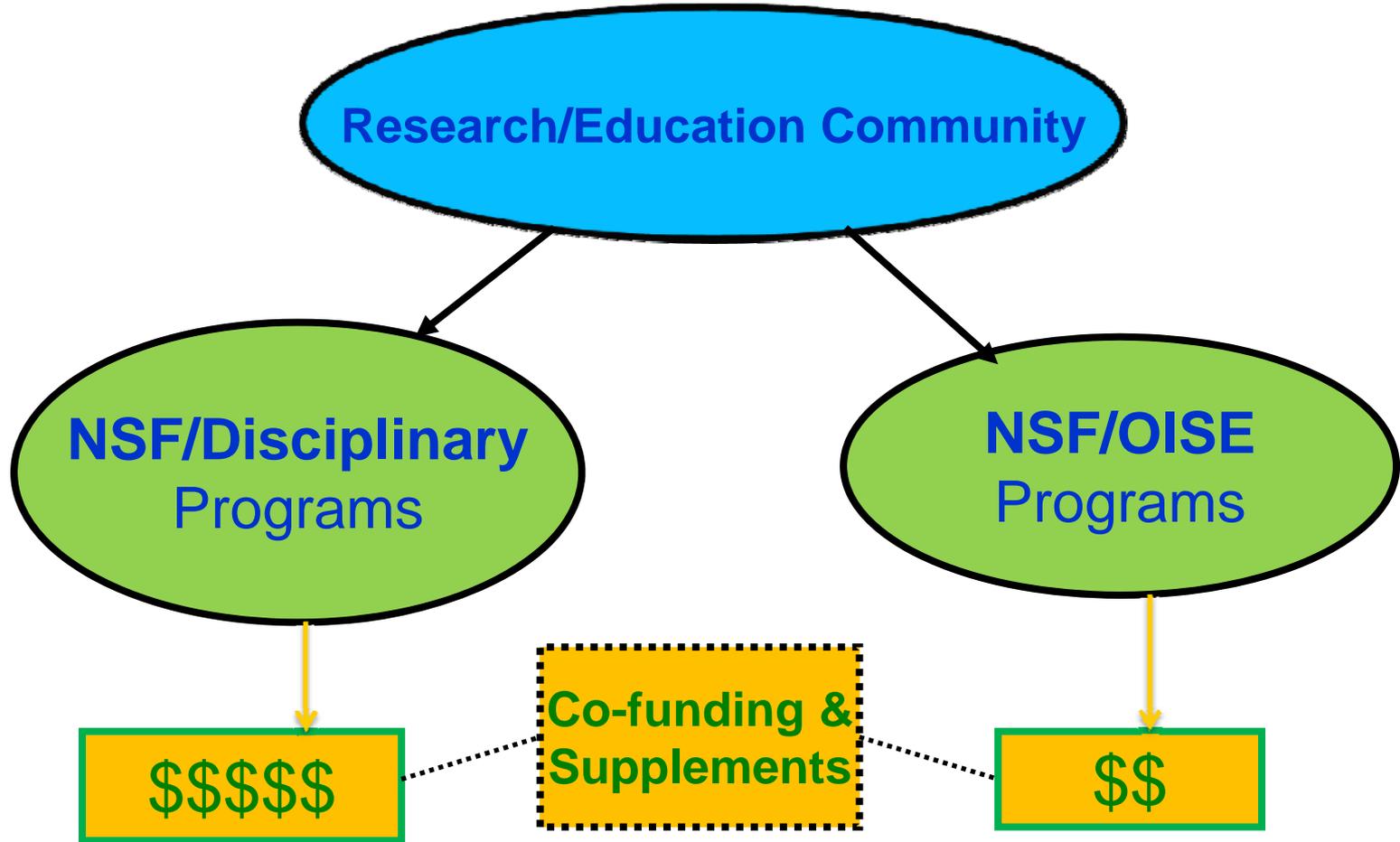


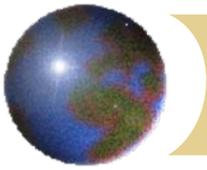
Disciplines

International



Mechanisms Supporting International Activities





Advancing NSF's Interests

Internal

External

Information
Exchange with
NSF Directorates/
Offices

Oversight

Engaging
U.S. Research
Community

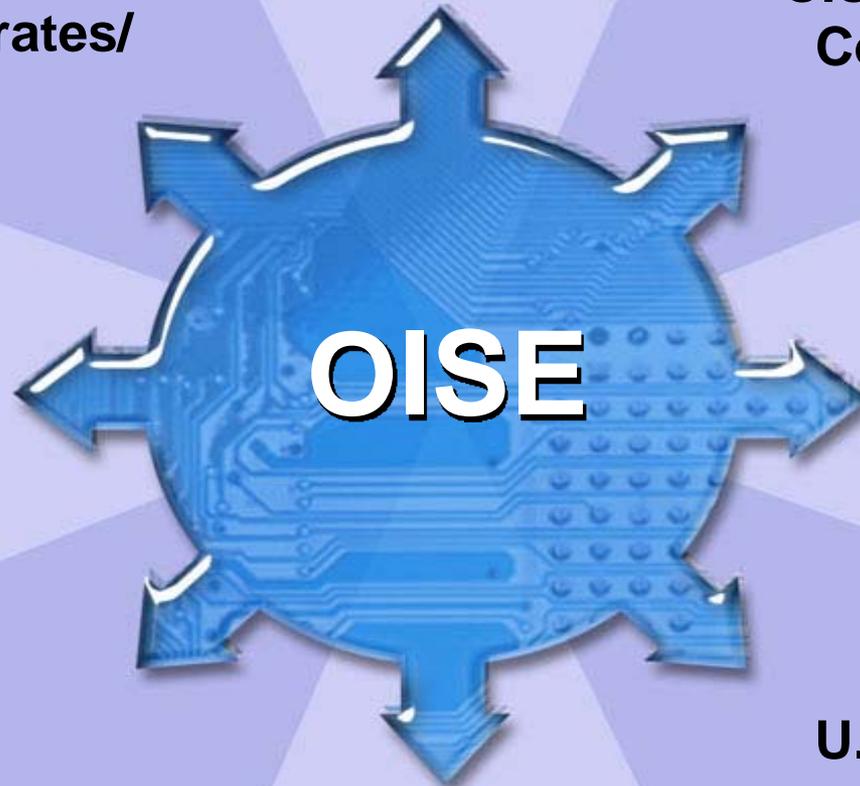
Leveraging
Resources and
Expertise

Strengthening
Partnerships
With Foreign
Counterparts

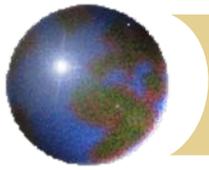
Data

USG Agencies

U.S. Domestic
Agency



OISE

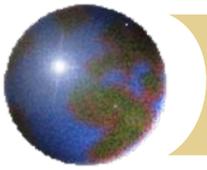


OISE In A Nutshell

- **Office:**
 - **4 Regional Groups + Cross-cutting Teams**
 - **3 NSF Overseas Offices – China, Japan, Europe**

- **Budget:**
 - FY12 - \$49.85 Million**
 - FY13 - \$51.28 Million (requested)**

- **Programmatic Goals:**
 - **Enhance research excellence through international collaboration**
 - **Foster the development of the next generation of globally engaged U.S. scientists and engineers**



OISE

**ADMINISTRATIVE
MANAGEMENT**

**OFFICE OF THE
DIRECTOR**

**OVERSEAS
OFFICES**
Paris
Tokyo
Beijing

AMERICAS

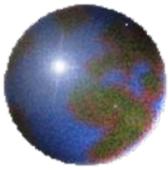
**EUROPE AND
EURASIA**

**AFRICA, NEAR
EAST, AND
SOUTH ASIA**

**EAST ASIA
AND PACIFIC**

**GLOBAL
INITIATIVES**





International Activities: OISE-Managed Programs

*Focus on career stages
From undergraduates to senior researchers*

International Research Experiences for Students – **IRES**

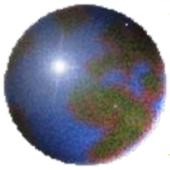
East Asia and Pacific Summer Institutes – **EAPSI**

Pan-American Advanced Studies Institutes – **PASI**

Partnerships for International Research and Education – **PIRE**

Science Across Virtual Institutes - **SAVI**



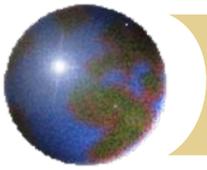


International Research Experiences for Students (IRES)

- **U.S. undergraduate & graduate students**
- Organized by U.S.-based faculty for an international research experience
- Foreign mentorship required
- Focused research experiences overseas (> 4 weeks)
- \$150,000 maximum (\$50,000 per year for up to 3 years)
- Also NSF Research Experiences for Undergraduates (REU)



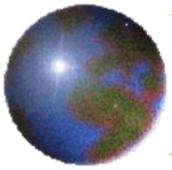
NCSU REU: Integrative Molecular Plant Systems, 2009



East Asia and Pacific Summer Institutes (EAPSI)

- **U.S. graduate students**
- Initiate scientific relationships with foreign counterparts
- Research experiences at host laboratories in Australia, China, Japan, Korea, New Zealand, Singapore, or Taiwan
- \$ 5,000 stipend for 8-10 weeks from June to August
 - ✓ Pre-departure orientation in the Washington, D.C.
 - ✓ International round-trip airfare to the host location
 - ✓ Orientation to science environment and culture(s) of each location
 - ✓ Abroad living expenses by foreign co-sponsoring organizations

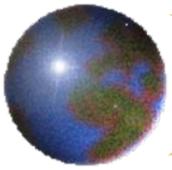




Pan-American Advanced Studies Institutes (PASI)

- **Advanced graduate, post-doctoral, and junior faculty**
- PI organizes short courses on leading-edge research themes
 - ✓ Lectures, demonstrations, research seminars, and discussions
 - ✓ Ten days to one month
 - ✓ 25 to 40 participants from the different countries in the Americas
- Jointly supported initiative between NSF and DOE



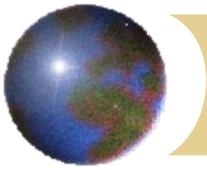


Partnerships for International Research and Education



- **Senior researchers** (and team)
- Bold, forward-looking research
- Facilitate student participation in international research collaborations
- Strengthen the capacity of institutions, multi-institutional consortia, and networks to engage in and benefit from international research and education collaborations
- 47 PIRE awards have engaged collaborators in more than 70 countries
- Awards typically have a five-year duration with an average total budget of \$2.8M

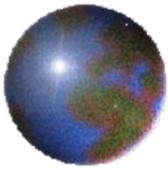




Science Across Virtual Institutes (SAVI)

- **Groups of Researchers**
- Structured framework to stimulate international interaction and collaboration in emerging multidisciplinary areas
- Initiated by NSF-supported teams of researchers
- Collaboration with non-U.S. teams
- Examples:
 - ✓ *Wireless Innovation* – Finland + 9 U.S. institutions
 - ✓ *Mathematical and Statistical Sciences* – India + 2 U.S. institutes
 - ✓ *Physics of Living Systems, Student Research Network* – 6 Countries + 11 U.S. institutes





Partnerships for Enhanced Engagement in Research (PEER)

- **Support scientists in developing countries** who work with NSF-funded scientists at U.S. institutions
- Build scientific capacity and empower researchers in developing countries to use science and technology to address local and global development challenges
- PEER funding may be used to:
 - ✓ Train students and faculty
 - ✓ Equip laboratories and field stations
 - ✓ Fund research,
 - ✓ Build scientific networks
- Administered by The **National Academies for USAID**



...where scientific research meets global development challenges

Award and Administration Guide

[Award Conditions](#)

[Other Types of Proposals](#)

[Merit Review](#)

[NSF Outreach](#)

[Policy Office](#)

Additional OISE Resources

[J-1 Visa Waiver Requests](#)

[US Govt Int'l Ofcs](#)

[State Dept Visa page](#)

Other Site Features

[Special Reports](#)

[Research Overviews](#)

[Multimedia Gallery](#)

[Classroom Resources](#)

[NSF-Wide Investments](#)

Programs and Funding Opportunities

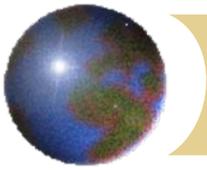
Key:  [Crosscutting](#) |  [NSF-wide](#)

OISE Managed Opportunities

- [Catalyzing New International Collaborations](#) 
- [East Asia and Pacific Summer Institutes for U.S. Graduate Students \(EAPSI\)](#) 
- [International Research Fellowship Program \(IRFP\)](#)  
- [Pan-American Advanced Studies Institutes Program \(PASI\)](#)
- [Partnerships for International Research and Education \(PIRE\)](#) 

Opportunities that Highlight International Collaboration

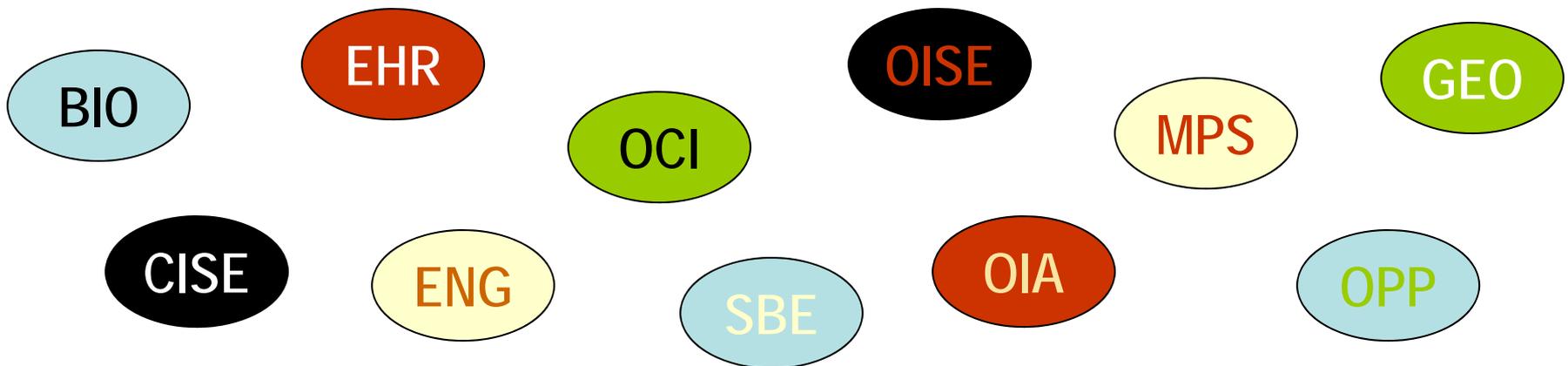
- [Academic Research Infrastructure Program: Recovery and Reinvestment \(ARI-R²\)](#) 
- [ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers](#) 
- [Basic Research to Enable Agricultural Development \(BREAD\)](#)
- [Centers for Chemical Innovation \(CCI\)](#)
- [Collaborative Research in Computational Neuroscience \(CRCNS\)](#) 
- [Community-based Data Interoperability Networks \(INTEROP\)](#) 
- [Cyber-Enabled Discovery and Innovation \(CDI\)](#) 
- [Cyberinfrastructure Training, Education, Advancement, and Mentoring for Our 21st Century Workforce](#) 
- [Dimensions of Biodiversity](#)
- [Domestic Nuclear Detection Office-National Science Foundation Academic Research Initiative \(ARI\)](#) 
- [Ethics Education in Science and Engineering \(EESE\)](#) 
- [Ethics in Science, Mathematics, and Engineering Online Resource Center \(Ethics Resource\)](#)

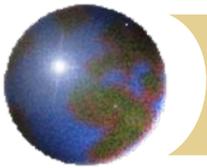


NSF Funding for International Activities

Most international activities are **funded by the disciplinary programs:**

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



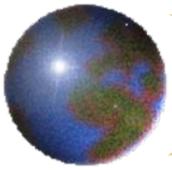


NSF Funding Rates, FY 2010

	<u>Proposals</u>	<u>Awards</u>	<u>Rate</u>	<u>Prior PIs</u>	<u>New PIs</u>
NSF	55,542	12,996	23%	-	-
BIO	8,059	1,556	19%	23%	14%
CISE	6,487	1,586	24%	26%	14%
EHR	5,055	930	18%	22%	13%
ENG	13,226	2,375	18%	22%	13%
GEO	4,816	1,686	35%	38%	25%
MPS	9,411	2,669	28%	35%	18%
SBE	5,618	1,257	22%	29%	17%
OISE	1,042	395	38%	40%	37%

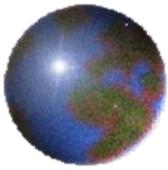
Source: Report to NSB on NSF's Merit Review Process FY 2010, [NSB-11-41](#)

<http://www.nsf.gov/nsb/publications/2011/nsb1141.pdf>



NSF-Supported International Research: A Sampling

- BIO** Long-term Ecological Research; Metabolomics; BREAD
- CISE** Collaborative Research in Computational Neuroscience; Global Environment for Network Innovations
- GEO** Integrated Ocean Drilling Project; Belmont Forum
- EHR** Graduate Research Fellowships Nordic Supplement; Integrated Graduate Education & Research Traineeship
- ENG** Earthquake Research; Synthetic Biology; Nanotechnology
- MPS** International Collaboration in Chemistry; Materials World Network; Astronomical Observatories
- OISE** Human Frontier Science Program; Global Science Forum
- OPP** Antarctica and Arctic research and education
- OCI** International Research Network Connections
- SBE** S&T Statistics; Science of Science and Innovation Policy



Funding international activities: Criteria/Key Elements

NSF-wide Criteria

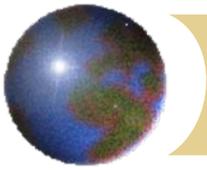
- Intellectual Merit
- Broader Impacts

Other NSF-wide Considerations

- Integration of Research and Education
- Broaden Participation

Additional Key Elements for International Awards

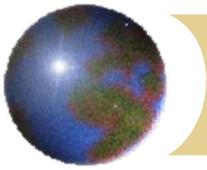
- New International Initiatives
- True Intellectual Collaboration
- Mutual Benefits for U.S. and Foreign Partners
- Involvement of U.S. Junior Researchers & Students
- Support U.S. Side of Partnerships



International Collaboration Funding: Key to Success

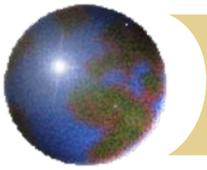
- Address how the collaboration will enhance the research
 - ✓ Value added
 - ✓ Mutual benefits
- Commitment from foreign collaborators
- Involve U.S. students, junior researchers
 - ✓ Meaningful attention to diversity
- Know and observe special rules
 - ✓ Visa regulations
 - ✓ Imports and exports
- Work with others in your institution
- Consult
 - ✓ NSF Program Manager
 - ✓ OISE Country Contact





Additional Requirements for NSF Proposals

- Plan for mentoring postdoctoral researchers
- Plan for data management and sharing of the products of research
- Training in responsible and ethical conduct of research to undergraduate and graduate students, and postdoctoral researchers participating in the proposed research project
 - ✓ Responsible conduct of research on the NSF Policy Web site
<http://www.nsf.gov/bfa/dias/policy/rcr.jsp>



Thank You!

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