

# Crosscutting & Interdisciplinary Programs

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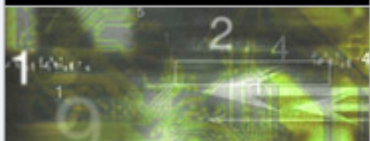
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*University*



National Science Foundation



Funding



Funding

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## Crosscutting and NSF-wide Active Funding Opportunities

This site provides program information for activities sponsored by more than one NSF organization. In addition, all NSF organizations accept proposals that cut across organizational and programmatic boundaries. We suggest that those seeking support for interdisciplinary work not described here consult the NSF program site(s) closest to the science, engineering or education focus of the planned work and contact relevant program officers to discuss submission of a proposal.

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

Status:

Sorted by Title. Click column headings to sort.

<a href="#">Title</a>	<a href="#">Program Guidelines</a>	<a href="#">Due Dates</a>
<a href="#">ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers</a> <b>C</b> <b>N</b>	<a href="#">05-584</a>	Full Proposal: January 27, 2006
<a href="#">Assembling the Tree of Life (ATOL)</a> <b>C</b>	<a href="#">05-523</a>	Full Proposal: March 27, 2006
<a href="#">Collaboration in Mathematical Geosciences (CMG)</a> <b>C</b>	<a href="#">05-535</a>	Full Proposal: February 1, 2006
<a href="#">Collaborative Research in Computational Neuroscience (CRCNS)</a> <b>C</b>	<a href="#">04-514</a>	Letter of Intent: December 1, 2005  Full Proposal: January 5, 2006
<a href="#">Communicating Research to Public Audiences</a> <b>N</b>	<a href="#">03-509</a>	

# Programs for Specific Groups/Purposes

- **Grant Opportunities for Academic Liaison with Industry (GOALI)**
- **Major Research Instrumentation (MRI)**
- **Integrative Graduate Education and Research Traineeship (IGERT)**
- **Faculty Early Career Development (CAREER) Program**
- **Research Experiences for Undergraduates (REU)**
- **Research in Undergraduate Institutions (RUI)**
- **NSF Graduate Teaching Fellows in K-12 Education**
- **ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers**
- **Cyber-enabled Discovery and Innovation**



# Grant Opportunities for Academic Liaison with Industry (GOALI)

- **Goals:**

- Catalyze industry-university partnerships
- Encourage innovative application of academe's intellectual capabilities
- Bring industry's perspective and integrative skills to academe
- Promote high quality research and broaden educational experiences in industrial settings

- **Proposal Requirements:**

- Co-PI from industry (must have an active role in the research)
- Industry-university agreement on Intellectual Property
- Statement describing the industrial R&D contribution
- Specific plan for industry/university interaction



# Grant Opportunities for Academic Liaison with Industry (GOALI)

- **Eligibility Restrictions:**
  - U.S. institutions of higher education that confer degrees in research areas normally supported by NSF may submit proposals on behalf of faculty members with full-time appointments
  - Only U.S. citizens or permanent residents eligible for fellowships
- **Cost Sharing:**
  - Cost Sharing has been removed from this latest version per NSF's Cost Sharing policy



# Grant Opportunities for Academic Liaison with Industry (GOALI)

**Program Solicitation:**

**NSF 07-522**

**Website:**

<http://www.nsf.gov/pubs/2007/nsf07522/nsf07522.htm>

**Deadlines & Contact Information:**

Contact Disciplinary Program Managers



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# Major Research Instrumentation (MRI)

- Goal - to increase access to scientific and engineering equipment in U.S. academic institutions.
- Supports instrument acquisition and development.
- Three proposals per institution (maximum of 2 can be for acquisition of equipment).
- Award size - \$100,000 to **\$4 million** **NEW**
- Proposals for less than \$100,000 will be considered from a PUI or in DMS or SBE fields
- 30% Cost sharing from Ph.D. granting and non-degree granting institutions.



# Major Research Instrumentation (MRI)

**Program Solicitation:**

**NSF 08-503**

**Website:**

<http://www.nsf.gov/pubs/2007/nsf07510/nsf07510.htm>

**Deadlines:**

Letter of Intent: **(Proposals above \$2 M)** December 21, 2007

Full proposal: January 24, 2008 (Every Fourth Thursday in January)

**Contact Information:**

Phone: (703) 292-8040

Joan M. Frye

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# Integrative Graduate Education and Research Traineeship (IGERT)

- **Goals**

- To catalyze a cultural change in graduate education, for students, faculty, and institutions, by establishing innovative new models for graduate education and training in a fertile environment for collaborative research that transcends traditional disciplinary boundaries.
- To facilitate diversity in student participation and preparation, and to contribute to the development of a diverse, globally-engaged, science and engineering workforce.



# Integrative Graduate Education and Research Traineeship (IGERT)

- **Proposals should:**

- Be integrative, research-based, graduate education and training activities in emerging areas of science and engineering
- Be organized around an interdisciplinary theme involving a diverse group of faculty members and other investigators with appropriate expertise in research and teaching
- Provide students with experience relevant to both academic and nonacademic careers

- **Awards:**

- For new projects, the first year award will be up to \$400,000 and in amounts up to \$600,000 for each of the next four years
- For renewals, awards will be made in amounts up to \$600,000 per year for a duration of five years



# IGERT Resource Center

The intent of the IGERT resource center is to provide the IGERT program overall and the IGERT projects with the ability and web-based platform to share and implement best practices across all aspects of IGERT; share curriculum advancements, and build on achievements of all the projects to support information and knowledge that can be shared among projects and with the broader community.

- **Awards: One Award This Competition**
- **Grant: Approximately 3 million over 5 years**



# Integrative Graduate Education and Research Traineeship (IGERT)

**Program Solicitation:**

NSF 08-540

**Website:**

<http://www.nsf.gov/pubs/2007/nsf07540/nsf07540.htm>

**Deadlines:**

Resource Center (Full Proposal)

April 24, 2008

Preliminary Proposal:

April 24, 2008

Full Proposal (Invitation Only):

October 20, 2008

**Contact Information:**

Coordinating Committee members are listed on the IGERT web page:

<http://www.nsf.gov/crssprgm/igert/cc.jsp>



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# Faculty Early Career Development (CAREER) Program

- **CAREER Program Objectives**

- Strongly encourage new faculty, emphasizing planning of an integrated academic career
- Develop faculty who are both highly productive researchers and dedicated, effective educators
- Form partnership with college or university to encourage balanced career development of individual faculty
- Increase participation of women, members of underrepresented minority groups, and persons with disabilities



# Faculty Early Career Development (CAREER) Program

- **CAREER Guidelines**

- Review process varies by Directorate, and may be by mail, panel, or combination
- Normal indirect cost rate applies
- 5 year duration
- Minimum Award: \$400K over 5 years (Proposers to the Biological Sciences Directorate (BIO) must submit budget requests for a minimum of \$500K for the 5-year duration).



# Faculty Early Career Development (CAREER) Program

- **CAREER Development Plan should include:**
  - The objectives and significance of the proposed integrated research and education activities;
  - The relation of the research to the current state of knowledge in the field and of the education activities to the current state of knowledge on effective teaching and learning in one's field of study;
  - An outline of the plan of work, describing the methods and procedures to be used, including evaluation of the education activities;



# Faculty Early Career Development (CAREER) Program

## Program Solicitation:

[NSF 05-579](#) (New Solicitation Forthcoming)

## Website:

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5262](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5262)

## Deadlines:

BIO/CISE/EHR: ~July, 2008

ENG: ~July, 2008

GEO/MPS/SBE/OPP: ~July, 2008

## Contact Information:

Division CAREER contacts listed on the CAREER Web page:

<http://www.nsf.gov/crssprgm/career/contacts.jsp>



# Research Experiences for Undergraduates (REU)

- **REU Sites**

- Goals:

- Initiate and conduct undergraduate research-participation projects
    - Create research environment with strong faculty-student interaction

- Recruitment:

- Significant percentage of students from outside host institution



# Research Experiences for Undergraduates (REU)

- **REU Supplements**

- Goal:

- Attract undergraduates into science by providing an active research experience

- Guidelines:

- Add one or two students to an active ongoing project
    - Must be U.S. citizen or permanent resident
    - No indirect costs (administrative allowance of 25% of student stipend)
    - Awards 6K
    - Ask Program Officer about due dates



# Research Experiences for Undergraduates (REU)

## Program Solicitation:

NSF 07-569

## Website:

[nsf.gov](http://www.nsf.gov) - [Funding - Research Experiences for Undergraduates - US National Science Foundation \(NSF\)](#)

## Deadlines:

REU Sites: August 18, 2008

REU Sites (Antarctic Program): June 6, 2008, June 5, 2009

REU Supplements: Contact Your Program Manager

## Contact Information:

NSF Contacts can be found at:

[http://www.nsf.gov/crssprgm/reu/reu\\_contacts.jsp](http://www.nsf.gov/crssprgm/reu/reu_contacts.jsp)



# Research in Undergraduate Institutions (RUI)

- **Goals**

- Support high quality research with active involvement of undergraduates
- Strengthen the research environment in undergraduate institutions
- Promote integration of research and education in undergraduate institutions



# Research in Undergraduate Institutions (RUI)

- **Eligibility:**
  - 20 or fewer Science and Engineering Ph.D.'s in 2 years
- **Proposal Types:**
  - Regular research
  - Multi-user instrumentation
  - **Research Opportunity Awards (a supplement to existing awards)**
- **5 Extra Pages (RUI Impact Statement in Supplementary Documents)**
- **No Separate Pot of money**
  - Funding comes from Disciplinary Programs
  - Proposals typically reviewed with all other unsolicited proposals



# Research in Undergraduate Institutions (RUI)

**Program Solicitation:**

**NSF 00-144**

**Website:**

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf00144](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf00144)

**Deadlines and Contacts:**

Contact disciplinary Program Managers



# NSF Graduate Teaching Fellows in K-12 Education (GK-12)

- **Focus**
  - STEM fellows serve in K-12 schools as resources
- **Awards**
  - Up to \$600K for 5 years (not renewable)
- **Eligibility**
  - STEM Master's and Doctoral degree granting institutions



# NSF Graduate Teaching Fellows in K-12 Education (GK-12)

- **Expected Outcomes:**

- Improved communication and teaching skills for fellows
- Enriched learning by K-12 students
- Professional development opportunities for K-12 teachers
- Strengthened partnerships between institutions of higher education and local school districts



# NSF Graduate Teaching Fellows in K-12 Education (GK-12)

## Program Solicitation:

NSF 07-555

## Website:

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5472](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5472)

## Tentative Deadlines:

Letter of Intent: ~Early May 2008

Full Proposal: ~Mid June 2008

## Contact Information:

Sonia Ortega (EHR): Phone: (703) 292-5198

E-mail: [sortega@nsf.gov](mailto:sortega@nsf.gov)



# ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers

- **Goal:**

- Increase the representation and advancement of women in academic S&E careers, thereby contributing to the development of a more diverse S&E workforce



# ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers

- **Three Types of Awards**
  - Partnerships for Adaptation, Implementation, and Dissemination
    - Supports the analysis, adaptation, dissemination and use of existing innovative materials and practices that have been demonstrated to be effective in increasing representation and participation of women in academic science and engineering careers.
  - Institutional Transformation
    - Institutional Transformation Awards support academic institutional transformation to promote the increased participation and advancement of women scientists and engineers in academe. These awards support innovative and comprehensive programs for institution-wide change.



# ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers

## — Institutional Transformation Planning Grants (IT-Start)

IT-Start awards support basic data collection and analysis functions necessary to understand the status of women faculty in academic science and engineering at institutions seeking institutional transformation. This category of award is intended to broaden the spectrum of institutions participating in ADVANCE activities. IT-Start awards seek to include institutions with varying institutional scope, sizes, experiences, and perspectives, for example (but not limited to): primarily undergraduate institutions, teaching intensive colleges, community colleges, minority-serving institutions (e.g. tribal colleges, Historically Black Colleges and Universities, Hispanic serving institutions) as well as women's colleges.



# ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers

## Program Solicitation:

NSF 07-582

## Website:

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5383](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5383)

## Deadlines:

PAID January 17, 2008

IT December 6, 2007

IT-Start December 6, 2007

## Contact Information:

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# Cyber-Enabled Discovery and Innovation (CDI)

➤ Multi-disciplinary research seeking contributions to more than one area of science or engineering, by innovation in, or innovative use of **computational thinking**.

➤ Computational thinking refers to computational...

- ...Concepts
- ...Methods
- ...Models
- ...Algorithms
- ...Tools



# Cyber-Enabled Discovery and Innovation (CDI)

CDI seeks transformative research in the following general themes, via innovations in, and/or innovative use of, computational thinking:

- ◆ **From Data to Knowledge:** *enhancing human cognition and generating new knowledge from a wealth of heterogeneous digital data;*
- ◆ **Understanding Complexity in Natural, Built, and Social Systems:** *deriving fundamental insights on systems comprising multiple interacting elements; and*
- ◆ **Building Virtual Organizations:** *enhancing discovery and innovation by bringing people and resources together across institutional, geographical and cultural boundaries.*



# Cyber-Enabled Discovery and Innovation (CDI)

- CDI defines research modalities
- Projects classified by magnitude of effort
- Three types are defined: Types I (~2 PI, 2 GRA), II (~3 PI, 3 GRA, 1 post-doc), and III (center scale).
- Type III, center-scale efforts, will not be supported in the first year of CDI



# Cyber-Enabled Discovery and Innovation (CDI)

## Next Competition:

- ✦ Letters of Intent (required) window: Aug. 30 – Sept. 30, 2008
- ✦ Preliminary Proposals window: Oct. 4 – Nov. 4, 2008

## This Competition:

- ✦ Full proposals window: March 28 - April 29, 2008
  - ✦ Full proposals by invitation only!
  - ✦ First awards: no later than October 2008

## For more information:

- Solicitation: <http://www.nsf.gov/pubs/2007/nsf07603/nsf07603.htm>
- FAQ, examples, resources: <http://www.nsf.gov/crssprgm/cdi> .



# Ask Early, Ask Often!

## NSF Crosscutting Web Page:

[www.nsf.gov/funding/pgm\\_list.jsp?type=xcut](http://www.nsf.gov/funding/pgm_list.jsp?type=xcut)



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