

### The NSF Graduate Research Fellowship Program

nsf.gov/grfp www.nsfgrfp.org





- Initiated 1952
- 46,500 Fellows to date



- > 30 Nobel Laureates & 440 National Academy of Sciences members
- 4,600 Active Fellows in 200 institutions
- Higher Ph.D. completion rates
- Enhanced diversity









- To increase the Nation's human capacity in science and engineering by providing fellowships for early-career graduate students who pursue research-based master's and doctoral degrees in NSF-supported disciplines
- To support the development of a diverse and globally engaged US science and engineering workforce



### **GRFP Eligibility: self-certified**

- U.S. citizens and permanent residents
- Early-career graduate students
- Pursuing research-based MS and PhD
- NSF supported fields
- Enrolled in accredited institution in US

#### Academic Levels of Eligible Applicants

- 1: Seniors/baccalaureates; no graduate study
- > 2: First-year graduate students
- 3: Second-year grad students
  - $\circ \leq 12$  months of graduate study by August
- 4: >12 months graduate study
  - Interruption in graduate study of 2+ years

Academic levels evaluated together







### Five Year Award - \$121,500

- Three years of support
  - \$30,000 Stipend per year
  - \$10,500 Educational allowance to institution
- International research opportunities expanded
- Supercomputer access
  - Winners
  - Honorable Mentions







- Flexible: choice of project, advisor & program
- Unrestrictive: No service requirement
- Portable: Any accredited institution
  - MS → PhD

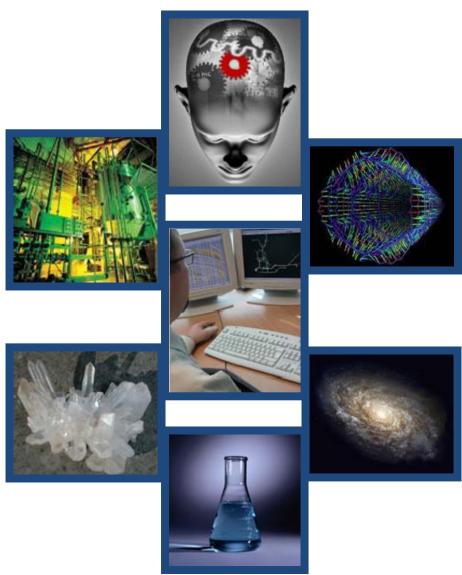


2010 and 2011: 2,000 Fellowships
 12,000 Applications - ~17% success rate
 2012: 2,000 Fellowships



### **NSF-Supported Disciplines**

- Chemistry
- Computer & Information
  Science/Engineering
- Engineering
- Geosciences
- Life Sciences
- Mathematical Sciences
- Physics and Astronomy
- Psychology
- Social Sciences



Field Group	Awards	Honorable Mention
Chemistry	169	141
Computer	120	113
Sciences		
Geo Sciences	78	85
Life Sciences	615	575
Math Sciences	86	71
Physics & Astro	104	91
Psychology	136	135
Social Sciences	192	198
Learning Res in		
STEM Fields	23	8



# Some recent changes in field designations

MATERIALS RESEARCH (reorganized from other fields)

Biomaterials, Chemistry of materials Materials theory Photonic materials Polymers Ceramics Electronic materials Metallic materials Physics of materials Other (Specify)

MATHEMATICAL SCIENCES

Mathematical Bio (added)

Genomics

STEM EDUCATION AND LEARNING RESEARCH (new)Engineering EducationMathematics EducationScience EducationTechnology EducationOther (specify)State of the second s



### NSF FastLane

- Personal statement (2 pages)
- Previous research experience (2 pages)
- Proposed plan of research (2 pages)
- Three letters of reference
- Transcripts (uploaded electronically)





### MICHIGAN Outcomes Data 2011

	1		
BA / BS Insti-	Awarded	Honorable	
tution		Mention	
Albion	3	0	
Alma	0	2	
Calvin	2	4	
Hillsdale	1	0	
Норе	5	0	
Michigan State	9	8	
U of Michigan	25	26	
Wayne State	0	2	

### Popular Institutional Destinations (2011) # out of 2,078 awards picking

Cal Berkeley		166	8.0%
MIT	164	7.9%	
Stanford		156	7.5%
Harvard		103	5.0%
U of Washingto	81	3.9%	
Michigan		60	2.9%
Cornell		59	2.8%
Cal San Diego		49	2.4%
Wisconsin		43	2.1%
Cal Davis	42	2.0%	
Columbia		41	2.0%

### Destinations, continued ...

NWU	41	2.0%	MSU	13	0.6%
UCLA		41	2.0%		
Illinois		35	1.7%		
Yale		35	1.7%		
Duke		33	1.6%		
Cal Tech		32	1.5%		
Carnegie M	U	32	1.5%		
GA Tech		32	1.5%		
Colorado		32	1.5%		
Princeton		31	1.5%		
Texas		30	1.4%	Rest	727 35.0%
Subtotal	1,	338	64.4%	(abo	ut 175 others)





### National Science Board

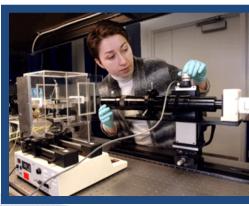
GOVERNING BOARD OF THE NATIONAL SCIENCE FOUNDATION & POLICY ADVISORS TO THE PRESIDENT AND CONGRESS

- Two National Science Board-approved criteria
  - Intellectual Merit
  - Broader Impacts
- Provide an overall rating
- Panels of disciplinary experts





- Demonstrated intellectual ability and other accepted requisites for scholarly scientific study, such as the ability to:
  - Plan and conduct research
  - Work as a member of a team as well as independently
  - Interpret and communicate research







### Intellectual Merit Assessment

- Academic performance
  - Grades, curricula, etc.
- Awards/honors
- Communication skills
- International experience
- Independence/creativity
- Publication/presentations
- Research plan
- Choice of institution
- References
- Research experience











- Integrate research and education at all levels, infuse learning with discovery, and assure that the findings are communicated in a broad context and to a large audience
- Encourage diversity, broaden opportunities, and enable the participation of all citizens, underrepresented minorities, and persons with disabilities -- in science and research
- Enhance scientific and technical understanding
- Benefit society





### **Broader Impacts Assessment**

- Prior accomplishments
- Future plans
- Individual experiences



- Integration of research and education
- Potential to reach diverse audiences
- Impact on society and connectivity
- Community outreach
- Leadership potential





### www.nsfgrfp.org

National Science Foundation Graduate Research Fellowship Program

#### Welcome to www.nsfgrfp.org

The National Science Foundation's Graduate Research Fellowship Program (GRFP) helps ensure the vitality of the human resource base of science and engineering in the United States and reinforces its diversity. The program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions. The NSF welcomes applications from all qualified students and strongly encourages under-represented populations, including women, underrepresented racial and ethnic minorities, and persons with disabilities, to apply for this fellowship.

#### The results of the 2011 GRFP are now available.

The 2011 awardees and honorable mentions list is posted on the <u>FastLane GRFP page</u>. Notification emails have been sent to all reviewed applicants.

#### Rating sheets have been posted on FastLane.

If you did not receive a notification, please check your spam/junk mail folder. Please e-mail info@nsfgrfp.org for further instructions if the notification is not in your junk mail folder.

#### **GRFP Fellows Receive the Following:**



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Register to Receive NSF GRFP Announcements





### GRFP Website: www.nsfgrfp.org

NSF GRF Solicitation and links: <a href="http://www.nsf.gov/grfp/">http://www.nsf.gov/grfp/</a>

#### Online Application, User Guides, Official Announcements: http://www.fastlane.nsf.gov/grfp/

866-NSF-GRFP (673-4737) info@nsfgrfp.org



### Next slides are for faculty



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#### National Science Foundation Graduate Research Fellowship Program

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How to Apply

#### About the Program

Applicant Resources

Why Apply

or Fellows

#### or Educators

Panelist Information

 Volunteer to Help Applicants

 Propose Institution or Conference Visit

#### Contact Us

#### NSF Graduate Research Fellowship Program

As an educator, you play a critical role in the promotion of the GRFP. By reviewing applications as a panelist, giving presentations at your institution, and mentoring those students wishing to apply, the support you provide is invaluable to the applicants' success. Included in this section are all of the resources needed to get involved with the GRFP. You can <u>download promotional materials</u> or <u>register as a potential</u> panelist or <u>register as a quide to help students at your institution</u>.

#### Want to See A Fellow's Research Featured on This Site?

If you are in contact with a current or past fellow, please have them send an email to <u>outreach@nsfqrfp.org</u> that includes the following:

- Their name
- Year awarded fellowship
- Institution attending/attended
- Image depicting their research (may or may not have people)

- Caption describing image, including what the viewer is looking at and the benefits of the research. Please use language that is easily understandable to someone outside the research field.

#### Included in this section:



Fellow Joshua Atwood from the University of Rhode Island assists the O'ahu Early Detection Project in seeking and removing Miconia calvescens on a hillside in Honolulu, HI. M. calvescens is an invasive plant that competes with native vegetation and promotes erosion by forming shallow-rooted monocultures.

## Working at NSF: How to apply for a Rotator position

- Go to <a href="http://www.nsf.gov/about/">http://www.nsf.gov/about/</a>
  - Click on "Career Opportunities"
  - Scroll down to "Current Vacancies" and click on "Scientific and Professional"
  - Select your Directorate of Choice from the dropdown menu and open your desired position.
- Contact the relevant NSF program office
- Contact the Division of Human Resource Management
- Check <u>http://www.usajobs.gov</u>

For more information: <u>http://www.nsf.gov/about/career\_opps/rotators/</u>