



# For Applicants to the NSF Graduate Research Fellowship Program

nsf.gov/grfp

www.nsfgrfp.org

# GRFP Goals

- To select, recognize, and financially support individuals who have demonstrated the potential to be high achieving scientists and engineers, early in their careers.

- To broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities and veterans.

# GRFP Eligibility

- U.S. citizens and permanent residents
- Early-career: undergrad & grad students
- Pursuing research-based MS and PhD
- Science and Engineering
- Enrolled in accredited institution in US by Fall

<u>Academic Levels</u>

1: Seniors/baccalaureates; no graduate study

2: Graduate Students

- First-year graduate students OR
- Second-year grad students with ≤ 12 months of graduate study by August
- *Note: graduate students can apply only once, so you have to decide when to apply.*

3: Previous graduate student

- >12 months graduate study - Interruption in graduate study of 2+ years (can have MS degree)

# GRFP Key Elements

**Five Year Award – $138,000**

- Three years of support
  - $34,000 Stipend per year
  - $12,000 Educational allowance to institution
- Professional Development Opportunities:
  GROW: International Research
  GRIP: Internships
- Supercomputer access: XSEDE
- Career-Life Balance Initiative (family leave)

# GRFP Unique Features

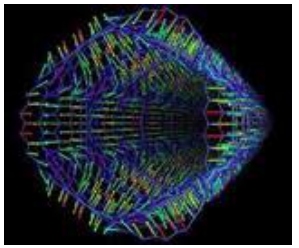
- Awarded to individual
- **Flexible:** choice of project, advisor & program
- **Unrestrictive:** No service requirement
- **Portable:** Any accredited U.S. institution
  - MS, MS and PhD, PhD

- **2010 - 2017:** 2,000 Fellowships each year
  - 2018: over 12,000 Applications - ~16.7% success rate

# GRFP Fields of Study

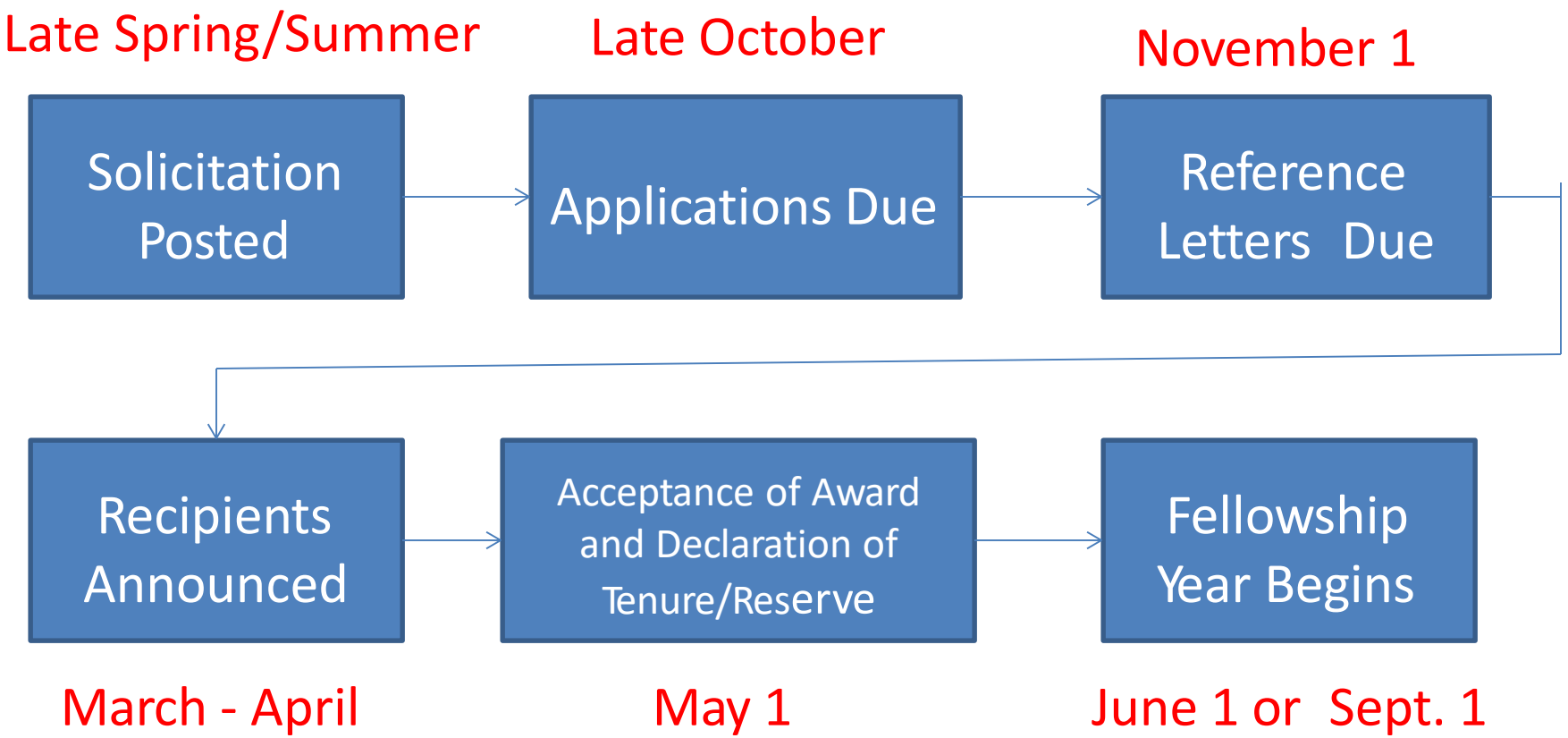
- Chemistry
- Computer & Information Science/Engineering
- Engineering
- Geosciences
- Life Sciences
- Materials Research
- Mathematical Sciences
- Physics and Astronomy
- Psychology
- Social Sciences
- STEM Education







# GRFP Application Timeline



# GRFP Solicitation (NSF 16-588)

- Contains the following information:
  - **Program description**
  - **Award information**
  - **Eligibility requirements**
  - **Application preparation**
  - **Submission instructions**
  - **Application review criteria**

# GRFP Complete Application

**NSF FastLane**

- Personal, Relevant Background and Future Goals Statement (3 pages)
- Graduate Research Statement (2 pages)
- Transcripts (uploaded electronically)
- Three letters of reference

# Two Statements

**Statement 1:**

**Personal, relevant Background and Future Goals Statement**
**3 pages**

Describe your personal, educational and/or professional experiences that motivate your decision to pursue advanced study. Include examples of research and/or professional activities in which you have participated. Describe the contributions to advancing knowledge in STEM fields and the potential for broader societal impacts. Include future plans to contribute to broader impact.

# Two Statements

**Statement 2:**

**Graduate Research Plan Statement**
**2 pages**

Present an original research topic that you would like to pursue in graduate school. Describe the research idea, your general approach. Address the potential of the research to advance knowledge and understanding within science as well as the potential for broader impacts on society.

# NSF Review Criteria

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

# Intellectual Merit Assessment

- Academic performance; grades, curricula, awards, etc.
- Graduate Research plan
- Research/professional experience
- Reference letters

# Broader Impacts Assessment

- Prior accomplishments and future plans
- Individual experiences
- Potential benefit(s) to society
- Community outreach
- Reference letters

# Intellectual Merit

- 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

***Tips:***

- **Consider the past:** What is the evidence you have already demonstrated intellectual merit? [If your GPA isn't the greatest, then use other things to show your merit]
- **Consider the future:** Show that you will continue to demonstrate intellectual merit. (through a good and reasonable research plan)

# Broader Impacts

***Tips:***

- **Consider the past:** What broader impacts have you already made? [Doesn't have to always be in research; include community outreach, etc.]

- **Consider the future:** How are you going to leverage the NSF resources that you receive to generate broader impacts in the future? [technological/scientific and non-technological/scientific. How will you help the NSF meet its goals? What will you do at your school? And beyond?]

# Broader Impacts

Societal benefits include, but not limited to,

- Impact of project or individual student on society
- Increased participation of underrepresented groups, women/minority, students with disabilities, veterans
- Improved STEM education in schools and teacher development
- Impact on society: Increased public scientific literacy; increased public engagement with science and technology
- Community outreach: science clubs, radio, TV, newspaper,
- Potential to impact diverse audiences: museums, aquarium
- Development of a diverse, globally competitive workforce
- Increased partnerships between academia, industry and others
- Leadership potential
- Plans to share your science with the broader community

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to:
   a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
   b. Benefit society or advance desired societal outcomes (Broader Impacts)?

2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?

3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?

4. How well qualified is the individual, team, or organization to conduct the proposed activities?

5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

# Reference writers

- Select your reference writers carefully, as they will provide important information about your potential as a leader, researcher, and educator – **familiarity with you as a person is important**
- Your selected reference writers will submit their own references; provide them all necessary information well in advance of deadline
- You may request up to 5 references. It is your responsibility to ensure three letters of references are submitted by the published deadline in order for your application to be complete and reviewed. (Will be reviewed with two letters)
- Letter writer deadline: November 1, 2018, 5:00 p.m. (ET)

# Application Review Process

- Applications are reviewed by panels of disciplinary and interdisciplinary scientists and engineers
- Applications **assigned** to panels based on the applicant's chosen Primary Field(s) of Study and the discipline(s) represented
- *Applicants are advised to select the Primary Field of Study that is most closely **aligned** with the proposed graduate program of study*
- **Holistic evaluation**: a flexible, individualized way of assessing an applicant's interests and competencies by which balanced consideration is given to experiences, attributes, and academic achievements and, when considered in combination, how the applicant has demonstrated potential for significant achievements in science and engineering.

# GRFP Advice for Applicants

- Start early
- Read Solicitation, and read it again
- Read NSF GRFP websites

- Select and confirm reference letter writers
- Pay attention to Merit Review criteria
- Identify several colleagues and have them comment on multiple statement drafts
- Share your application materials and the merit review criteria with reference writers
- Monitor receipt of reference letters (2 required for review)

University of Missouri [http://grfpessayinsights.missouri.edu/](http://grfpessayinsights.missouri.edu/)

# GRFP Essay Insights

Application Resources for the NSF Graduate Research Fellowship Program

**On this site**

- GRFP Overview
- How to Apply
- Review Criteria: IM & BI
- Defining Broader Impacts *Planning BI Activities*
- Defining "Desired Societal Outcomes"
- The Review Process
- Personal, Relevant Background and Future Goals Statement *A Sample Outline*
- Graduate Research Statement *From Outline to First Draft*
- Critiquing Your Drafts & Self-Assessment Rubric
- Selecting References
- Reference Writers: FYI
- For Future Applicants *The Year You Apply*
- Advice from Reviewers
- Writing Resources

**Key links**

- GRFP Announcement
- Fastlane GRFP (*apply here*)
- NSF: GRFP Purpose and FAQs

## GRFP Overview

### The basics

The GRFP is a prestigious, nationally competitive fellowship offered by the **National Science Foundation**. It provides three years of financial support for beginning graduate study leading to a research-based degree in the STEM disciplines.

### Financial support

The fellowship includes a $32,000-per-year stipend for three years. Additionally, each Fellow receives a tuition waiver via a cost-of-education allowance that is awarded to the graduate institution. After one year of graduate study, Fellows become eligible to apply for international research funding support through Graduate Research Opportunities Worldwide (GROW).

### Eligibility requirements*

***Always refer to the current NSF-GRFP Solicitation for official eligibility information.**

1. **Citizenship**: Must be a United States citizen, US national, or a permanent US resident by the application deadline. Refer to the GRFP solicitation.
2. **Degree requirement:** Individuals are *typically* eligible to apply
   - during the senior year of college; or after earning a baccalaureate, but no graduate study;
   - first year graduate students;

**Social network discussions**

**LinkedIn** group: NSF Graduate Research Fellowship

**Twitter:** @NSFGRFP

**Facebook:** NSFGRFP

**thegradcafe:** NSF GRFP 2014-15 not yet available

**Advice from Fellows**

*NSF GRFP funds translate to increased creative potential and hence potential for success and happiness.*

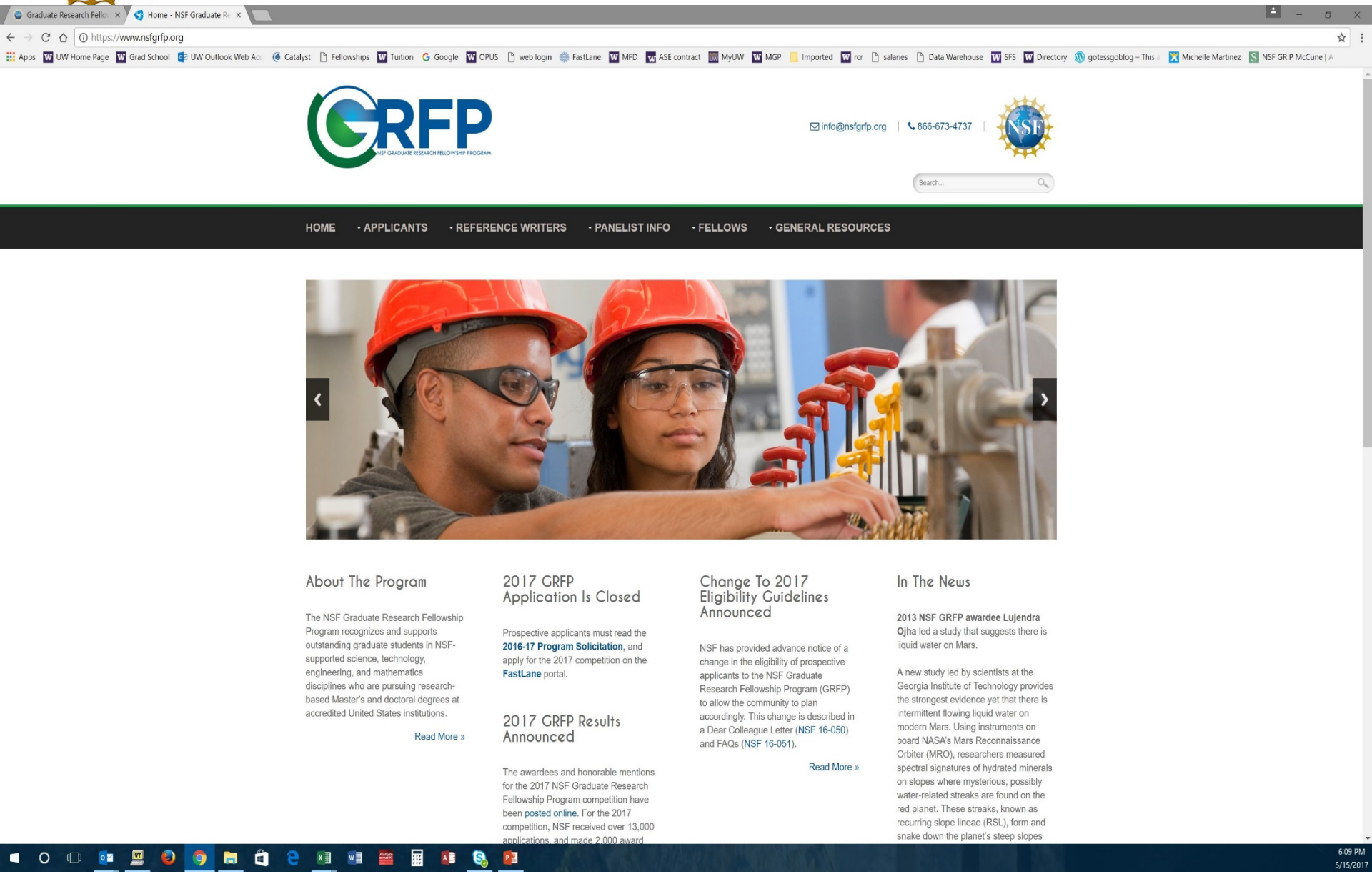
Roberto Miguez
'09 Fellow, Engineering
University of Michigan

More...

**About this site**

Permissions, Background & References

# nsfgrfp.org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Home - NSF Graduate R
https://www.nsfgrfp.org
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UW Outlook Web Acc
Catalyst
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Google
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MFD
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MGP
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salaries
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SFS
Directory
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REFERENCE WRITERS
PANELIST INFO
FELLOWS
GENERAL RESOURCES
About The Program
The NSF Graduate Research Fellowship 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 United States institutions.
Read More »
2017 GRFP Application Is Closed
Prospective applicants must read the 2016-17 Program Solicitation, and apply for the 2017 competition on the FastLane portal.
2017 GRFP Results Announced
The awardees and honorable mentions for the 2017 NSF Graduate Research Fellowship Program competition have been posted online. For the 2017 competition, NSF received over 13,000 applications, and made 2,000 award
Change To 2017 Eligibility Guidelines Announced
NSF has provided advance notice of a change in the eligibility of prospective applicants to the NSF Graduate Research Fellowship Program (GRFP) to allow the community to plan accordingly. This change is described in a Dear Colleague Letter (NSF 16-050) and FAQs (NSF 16-051).
Read More »
In The News
2013 NSF GRFP awardee Lujendra Ojha led a study that suggests there is liquid water on Mars.
A new study led by scientists at the Georgia Institute of Technology provides the strongest evidence yet that there is intermittent flowing liquid water on modern Mars. Using instruments on board NASA's Mars Reconnaissance Orbiter (MRO), researchers measured spectral signatures of hydrated minerals on slopes where mysterious, possibly water-related streaks are found on the red planet. These streaks, known as recurring slope lineae (RSL), form and snake down the planet's steep slopes
6:09 PM
5/15/2017

# University of Washington contacts:

Current graduate students:

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Office of Fellowships and Awards
gradappt@uw.edu

Current undergraduate students & alumni:

Emily Smith & Robin Chang
Office of Merit Scholarships, Fellowships & Awards
emilys42@uw.edu; robinc@uw.edu

# GRFP Resources

- NSF GRFP Website (nsf.gov/grfp)
  - Solicitation and links
- NSF GRFP FastLane Website (fastlane.nsf.gov/grfp)
  - Application, guides, announcements
- GRFP Website (nsfgrfp.org)
- Current & former Fellows
- Phone & e-mail
  - 866-NSF-GRFP (673-4737)
  - info@nsfgrfp.org