

The background features a detailed illustration of a cell. At the top, a chain of molecular models is shown, consisting of spheres connected by rods. Below this, a yellow DNA double helix is depicted. The cell's internal structure is shown in various colors, including blue, purple, and green, with a prominent blue nucleus. A pink ribbon diagram of a protein structure is visible on the right side. The overall scene is set against a light blue gradient background.

# **Division of Molecular and Cellular Biosciences (MCB)**

## **Virtual Office Hours**

### **Welcome!**

### **We will begin at 2pm ET**



# Questions and Answers

Submit your questions via the Q&A box on your screen

- You may elect to submit your question anonymously.
- For specific questions about your project, please contact a Program Director.

**Next MCB Virtual Office Hour**

September 13<sup>th</sup>, 2023: Postdoctoral Research Fellowships in Biology (PRFB)



# MCB Virtual Office Hour

**Today's Topic:**

## Graduate Research Fellowship Program

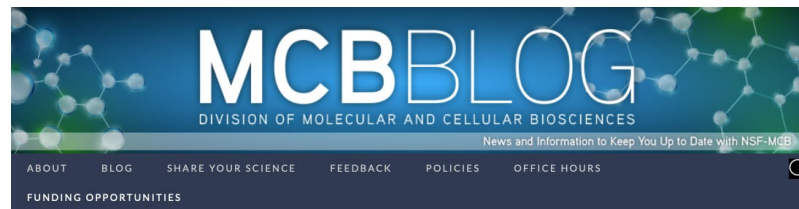
**NSF 23-605**

**Jong-on Hahm & Joel Schildbach (GRFP/DGE/EDU)**

**Slides and recordings of past presentations at**

**<https://mcbblog.nsfbio.com/office-hours/2/>**

**(Example: April 12, 2023 – How to Write a Great NSF Proposal)**



# Division of Graduate Education (DGE)

Graduate Research  
Fellowship Program (GRFP)  
[NSFGRFP.org](http://NSFGRFP.org)





## Graduate Research Fellowship Program (GRFP)

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Directorate of STEM Education (EDU)  
Division of Graduate Education (DGE)

[www.nsf.gov/grfp](http://www.nsf.gov/grfp)  
[info@nsfgrfp.org](mailto:info@nsfgrfp.org)  
[www.nsfgrfp.org](http://www.nsfgrfp.org)

# Talk Contents

## About GRFP

General Information

Description

Eligibility

Ineligible Degree  
Programs

Ineligible Fields of  
Study

Application Package

Review Criteria



# ABOUT NSF GRFP



SINCE 1952

**70,000+**  
GRFPs AWARDED

**40+ FELLOWS**

HAVE GONE ON TO BECOME  
NOBEL LAUREATES

FELLOW FROM/IN EVERY STATE

**450+ FELLOWS**

HAVE BECOME MEMBERS OF THE  
NATIONAL ACADEMY OF SCIENCES

**\$37,000**  
ANNUAL STIPEND

**\$16,000**  
COST OF EDUCATION ALLOWANCE

**5-YEAR**  
FELLOWSHIP  
PERIOD

**3 YEARS**  
FINANCIAL  
SUPPORT

NO POST-GRADUATE  
STUDY SERVICE  
REQUIREMENT

~Per Competition

**12,000+** APPLICANTS  
**2,000+** OFFERS

ACADEMIC INSTITUTIONS REPRESENTED

**500+**

~Per Competition

## Submit Early

### OPEN TO:

Individuals Pursuing  
RESEARCH-BASED  
MASTER'S &  
DOCTORAL  
DEGREES In Eligible  
Fields of Study

[nsfgrfp.org](http://nsfgrfp.org)

DECISION  
TREE

FORMAT  
COMPLIANCE  
CHECK

## ELIGIBLE MAJOR FIELDS OF STUDY



CHEMISTRY



COMPUTER AND  
INFORMATION  
SCIENCES &  
ENGINEERING



ENGINEERING



GEOSCIENCES



LIFE  
SCIENCES



MATERIALS  
RESEARCH



MATHEMATICAL  
SCIENCES



PHYSICS &  
ASTRONOMY



PSYCHOLOGY



SOCIAL  
SCIENCES



STEM EDUCATION & LEARNING RESEARCH

MAJOR FIELDS HAVE SUB-FIELDS

# Graduate Research Fellowship Program (GRFP)

## DESCRIPTION





Five Year Awards – \$159,000\*

**Three years of financial support**

- \$37,000 stipend each year to the graduate institution
- \$16,000 educational allowance directly to graduate institution
- In lieu of tuition (paid by institution) and fees

**Other NSF Opportunities**

- INTERN – non-academic internship program
- FASED Individuals with Disabilities support
- Career-Life Balance Initiative (family leave)



- **Fellowship**: Awarded to individual, paid through the attended graduate institution
- **Flexible**: Choice of project, advisor, and graduate program
- **Unrestricted**: No service requirement after completion
- **Portable**: Can be used at any accredited, non-profit, US institution of higher education, with campus in US research-based master's and doctoral degrees

2010 - 2021: ~2,000 Fellowships yearly

2021: ~12,600 Applications - ~17% success rate

2020: ~12,800 Applications - ~16% success rate

2019: ~12,200 Applications - ~16% success rate

2018: ~12,400 Applications - ~16% success rate



The overall goal of the Graduate Research Fellowship Program is to recruit individuals into Science, Technology, Engineering, and Mathematics (STEM) fields

- 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



**DGE** | DIVISION OF  
GRADUATE EDUCATION

# Graduate Research Fellowship Program (GRFP)

## ELIGIBILITY



National Science Foundation  
Directorate for STEM Education (EDU)

- U.S. citizens, nationals, and permanent residents
- Early-career: undergrad & graduate students
- Pursuing research-based master's and/or doctoral degrees (no professional degrees)
- Science, Technology, Engineering, Mathematics (STEM) or STEM Education
- Full-time enrollment in graduate degree program at accredited, non-profit US institution of higher education
- NO foreign institutions

Level 1: Seniors/bachelor's degree: no graduate study

Level 2: 1st-year graduate students

- Joint bachelor's-master's (completed 3 years)

Level 3: Second-year graduate students

- No more than 1 academic year completed in 1st graduate degree program
- For joint BS/MS holders ONLY, can apply as 1st year doctoral students if went directly into PhD program, after completing joint bachelor's-master's degree)

**Only  
apply  
once**

Level 4: Returning graduate students

- > 2-year interruption in graduate study
- No doctorates or >1 academic year in graduate program
- NOT ENROLLED in graduate program at application deadline



## *Ineligible Degree Programs*

- Professional degree programs
  - E.g., MBA, MD, JD, DVM, DDS
- Joint science-professional degree programs
  - E.g., MD/PhD, JD/PhD
- Community, Global, or Public Health (MPH)
- Counseling, Social Work (MSW)
- Education (except STEM education)
- History (except history of science)

See Detailed Eligibility  
Requirements in the GRFP  
Solicitation



## *Ineligible Fields of Study*

### Research with directly health-related goals

- Etiology, diagnosis, or treatment of disease or disorder
- Animal models of disease for drug development/testing
- Epidemiology
- Disease prevention
- Public, community, global health
- Clinical research
- Patient-oriented research
- Epidemiological and behavioral studies

### Outcomes research

- Health services, standard of care, health policy
- Research directly leading to clinical trials

### Applied research on plant pathology

- Maximizing agricultural production

### Impacts on food safety



# Graduate Research Fellowship Program (GRFP)

## Application Package







# *GRFP Application*

## Complete Application Package:

- 1) Personal Information, Education, Work/Research Experience, Proposed Major Field of Study, Honors, Awards, Publications
- 2) Personal, Relevant Background and Future Goals Statement (3-page PDF)
- 3) Graduate Research Statement (2-page PDF)
- 4) Transcripts (PDFs; mandatory)
- 5) Letters of reference (may provide up to five names of reference letter writers)
  - 3 reference letter writer names are mandatory and 2 reference letters are mandatory for application review



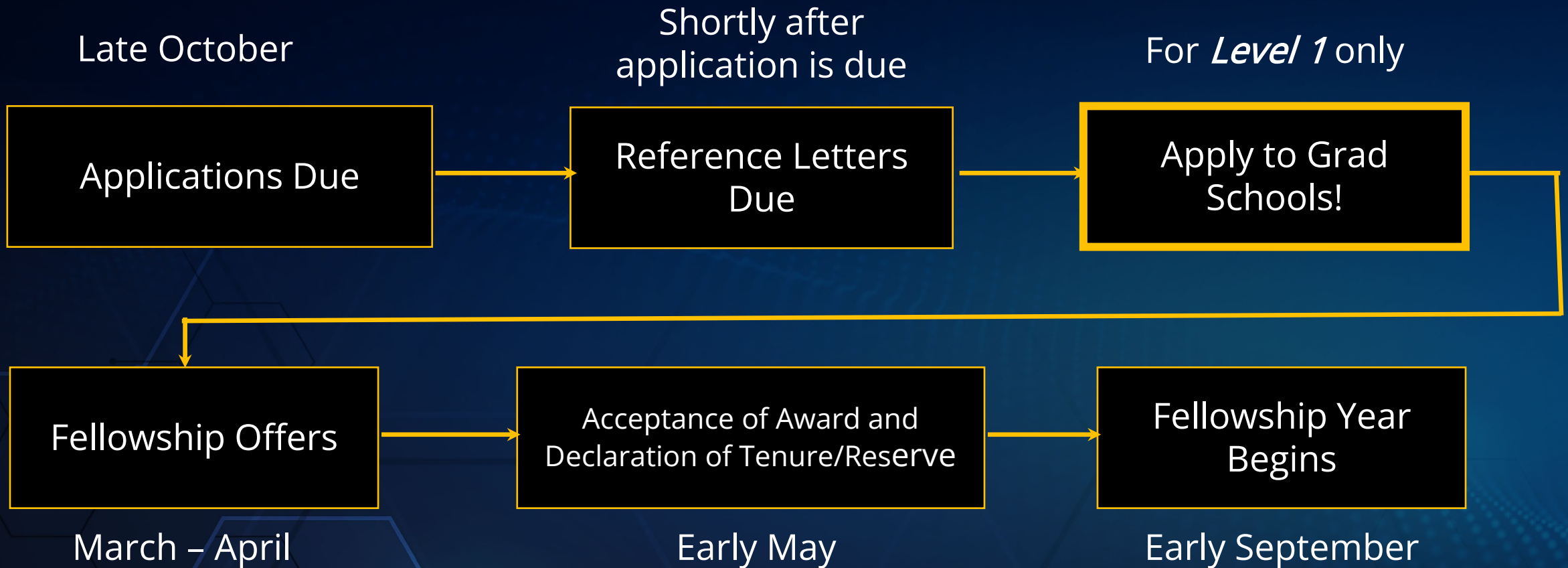
## DEADLINES (5 p.m. local applicant mailing address):

- Oct. 16, 2023: Life Sciences
- Oct. 17, 2023: CISE, Materials Research, Psychology, Social Sciences, STEM Education and Learning
- Oct. 19, 2023: Engineering
- Oct. 20, 2023: Chemistry, Geosciences, Mathematical Sciences, Physics & Astronomy

Read the GRFP Solicitation for detailed application instructions and requirements

**If accessibility accommodations are required, please contact [info@nsfgrfp.org](mailto:info@nsfgrfp.org) at least four weeks before the application deadline**

# *Example GRFP Application Timeline*



# Graduate Research Fellowship Program (GRFP)

## Two Statements

- 1) Personal, Relevant Background & Goals
- 2) Research Statement



# *Personal, Relevant Background & Goals*

- Tell your story; demonstrate your potential for STEM research
- Experiences (professional and personal) that contributed to your motivation and preparation for pursuing a STEM career

## **Career aspirations and future goals**

How have your experiences shaped your goals?

## **Research, industrial, professional experience**

- What was the project, what was your role?
- How did you become involved? Where was it done?
- Why was this project worth doing? What have you learned? Any advanced course work?
- What was your contribution to the project and how did it fit into the whole?



# Research Statement

## Describe your proposed research plan:

- Communicate your research idea and approach
- Explain your research plan and methods
- What do you expect to learn? How will you know if the project is successful?
- What would you do next?

## Keep in mind:

- Avoid jargon
- Communicate clearly for non-specialists
- Make your contributions clear

**Clearly address NSF's Merit Review Criteria – Intellectual Merit and Broader Impacts – under separate headings**

## Reference Letters – Before the Deadline

### MANDATORY for Application Review

- 3 names must be listed as part of the application
- 2 reference letters must be received by NSF

### STRONGLY RECOMMENDED

- Up to 5 names of potential references can be listed
- 3 reference letters received by NSF

Applicants list and rank up to 5 reference letter writers  
- Top 3 will be seen by reviewers

## Transcripts – Required

- All applicants must submit bachelor's degree transcript
- Transcripts are required for all degree-programs
- Transcripts required for all graduate degree enrollment
- Official or unofficial transcripts accepted



# Graduate Research Fellowship Program (GRFP)

## Review Criteria





## Intellectual Merit

- How important is the proposed activity to advancing knowledge within its own field or across different fields?

## Broader Impacts

- How well does the proposed activity benefit society or advance desired societal outcomes?



Applicants are reviewed based on:

- Their demonstrated potential for significant achievement in STEM
- Using a comprehensive, holistic approach
- A balanced consideration to all components of the application
  - Including the educational and research record, leadership, outreach, service activities, plans for the future, individual competencies, experiences, and other attributes



# *Intellectual Merit*

Potential to advance knowledge

Evidence of potential, such as ability to:

- Demonstrate intellectual ability (grades, curricula, awards, publications, presentations, etc.)
- Plan and conduct research
- Work as a member of a team as well as independently
- Interpret and communicate research
- Take initiative, solve problems, persist
- Display the potential of your approach to your major field of study and your Research Plan to advance knowledge

Evidence of Intellectual Merit can be found in all parts of the application: Personal Statement, Research Plan, letters, experiences, awards, achievements, and transcripts



# Broader Impacts

Potential impact of the individual and/or the research on society; why it's important

Societal benefits may include, but are not limited to:

- Broadening participation of the full spectrum of diverse talents in STEM
- Engaging in mentoring; improving STEM education in schools
- Increasing public scientific literacy; increased public engagement with STEM
- Conducting community outreach: science clubs, radio, TV, newspapers, blogs
- Increasing collaboration between academia, industry, others

Evidence of Broader Impacts can be in all parts of the application:  
Personal Statement, Research Plan, letters, experiences, awards,  
achievements





Thank you

[nsfgrfp.org/reviewers](https://nsfgrfp.org/reviewers)

## Graduate Research Fellowship Program (GRFP)

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### Program Contacts

GRFP Reference Writers: [nsfgrfp.org/reference\\_writers](https://nsfgrfp.org/reference_writers)

GRFP Reviewers: [nsfgrfp.org/reviewers/](https://nsfgrfp.org/reviewers/)

[info@nsfgrfp.org](mailto:info@nsfgrfp.org)

[www.nsf.gov/grfp](https://www.nsf.gov/grfp) & [www.nsfgrfp.org](https://www.nsfgrfp.org)

866-NSF-GRFP, 866-673-4737 (toll-free from the US & Canada)

202-331-3542 (international)

# Next MCB Virtual Office Hour

- Wednesday September 13<sup>th</sup>, 2023, 2-3 pm ET  
**Postdoctoral Research Fellowships in Biology (PRFB)**

## All BIO Divisions host monthly VOH

Biological Infrastructure: 3<sup>rd</sup> Tuesday (3-4 pm)

Environmental Biology: 2<sup>nd</sup> Monday (1-2 pm)

Integrative Organismal Systems: 3<sup>rd</sup> Thursday (1-2 pm)

Molecular and Cellular Biosciences: 2<sup>nd</sup> Wednesday (2-3 pm)



