

National Science Foundation Funding Opportunities for Early-Career Researchers

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Claudia Rankins, PhD
Senior Research Associate
PRISSEM Academic Services, LLC

Agenda

- Introductions
- NSF programs geared towards early career faculty
- Contacting the NSF program director and the concept outline
- Post award issues to consider when writing the proposal
- Making grants work for you
- Q&A

Who We Are

- PRISSEM Academic Services, LLC, a Black-owned company, was founded by Dr. Falcon Rankins in 2005 with the goal of helping HBCU STEM faculty thrive.
- Dr. F. Rankins brings a host of experience working closely with STEM faculty at HBCUs to develop research plans, obtain funding, and successfully carry out funded projects.
- Dr. Claudia Rankins brings 12 years of experience as program officer for the NSF HBCU-UP, CAREER, and HBCU Excellence in Research programs, having managed a portfolio of \$400m in awards, mostly to HBCUs. She also has over 20 years of experience in STEM faculty and administrative positions at an HBCU.
- Dr. Koren Bedeau brings 18 years of experience as a university administrator in academic affairs. She has a wealth of experience in leadership development for women faculty in STEM, STEM faculty at HBCUs, and grant execution for broadening participation.

What we do

- Individualized and small team grant- and professional development activities**
- Project management and grant development services for individual investigators and teams
- NSF grant development workshops
- Strategic planning meetings with institutional leadership

** Contact Farin Kamangar or Gillian Silver if you are interested in this activity. We have **one** slot available.

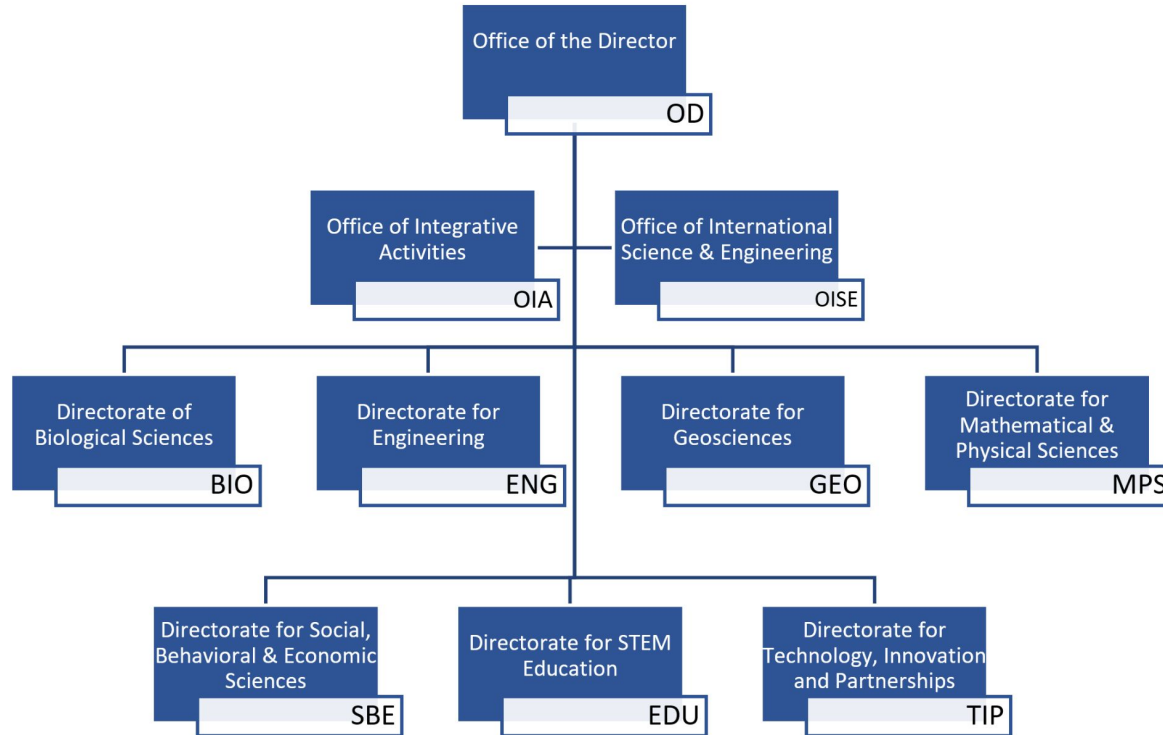
Introduce yourself in the chat

- Your name
- Your academic rank/job title
- Your discipline
- Name one thing you would like to learn about today

National Science Foundation

- NSF supports research across all non-medical fields of science and engineering and S&E education
- In FY 2023, NSF...
 - Had a budget of \$ 9.9 billion, of which it spent 93% to support research projects, facilities, and STEM education
 - Is the funding source for ~24% of federal supported basic research conducted by colleges, universities, and other institutions
 - In 2023, NSF received 38,339 proposals and made 11,058 new awards, primarily through grants.
 - In 2023, HBCUs submitted 622 proposals, and NSF made 217 awards.

NSF Directorates



What NSF is interested in

- Research across all non-medical fields of science and engineering and S&E education that fits well within the established programs in the directorates/offices or that cut across directorates
- Occasionally, Congress names areas of research that are of urgent or current need for the national well-being
- Projects with intellectual merit *and* broader impacts

What NSF does NOT fund

- Research with disease related goals, including animal research in that area
- Clinical, counseling, business administration or management, education (except STEM), history (except STEM) areas
- Pharmacologic and other interventions for disease prevention, diagnosis or therapy.

Submitting a proposal that is deemed by the program director to NOT fit into NSF's portfolio is grounds for Return without Review.

NSF merit review criteria

- **Intellectual Merit** – potential to advance knowledge
- **Broader Impacts** – potential to benefit society and contribute to achievement of specific, desired societal outcomes
- Proposers must fully address both criteria
- Other considerations:
 - Creativity and transformative potential valued
 - Plan must be well-organized and well-reasoned
 - Project team must be qualified
 - PI must have adequate resources available

If following a solicitation, also check for solicitation-specific review criteria.

Funding opportunities to consider

- NSF has about 300 programs to which you can apply, most of them in very specific areas of a STEM discipline.
- Additional opportunities in PAPPG [NSF 24-1](#) (as of May 20, 2024). There are significant changes from NSF 23-1.
- NSF announces topics of interest in Dear Colleague Letters.
- Subscribe to NSF e-mail updates. The link is on the [homepage](#).

CAREER - Faculty Early Career Development Program

- Solicitation [NSF 22-586](#) clearly outlines eligibility requirements and lists the CAREER proposal specific requirements
- One of the few solicitations that lists reasons for “return without review”
- Also consult the PAPPG and adhere to proposal preparation guidance
- For general questions? Email: nsf-ccc@nsf.gov
- For specific questions contact [director representative](#) or the program director of your program
- Attend the NSF CAREER webinars

More on CAREER

- Deadline is 4th Wednesday in July
- This program has a **lower** limit on your budget
- You must still be untenured and an assistant professor by the **submission** deadline
- CAREER has a required education component. Research **and** education must be well integrated in a CAREER proposal.
- The letter from the chair is crucial.
- PECASE - Presidential Early Career Awards for Scientists and Engineers

Where do CAREER awards go?

4,943 CAREER awards were made from 2017-2022

Institution type	No. of CAREER Awards	Sum of Awards
HBCUs	15	\$9,276,918
All other IHEs	4,938	\$2,876,378,063
HBCU percentages	0.3%	0.3%

Note: ~3.3% of 4yr IHEs are HBCUs

Two Programs for HBCU faculty only

- **HBCU-Undergraduate Program [NSF 23-563](#)** - supports faculty researchers through **Research Initiation Awards**.
- 3 year awards for up to \$450k.
- Only 2 submissions per year per institution are allowed.
- Faculty who have been awarded a federal **research** grant during the past 3 years are ineligible.

Two Programs for HBCU faculty only

- **HBCU Excellence in Research** [NSF 23-598](#) - supports HBCU research capacity by funding projects aligned with NSF's research programs.
- All NSF directorates participate in the program.
- Finding the secondary program is crucial.
- There is no limit on submissions per institutions.

Both programs/tracks support projects in **all** NSF funded research areas, including STEM education research and social and behavioral science research.

Select Programs as Entry Pathways into NSF

- **Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences (LEAPS-MPS)** [NSF 22-604](#) - supports pre-tenure faculty in astronomy, chemistry, materials science, mathematics, and physics at MSIs, PUIs, and R2 institutions. 2 year, \$250k awards. Next Deadline: January 23, 2025
- **Computer and Information Science and Engineering Research Initiation Initiative (CRII)** [NSF 23-576](#) - supports early-career academicians who specifically lack access to adequate organizational or other resources. 2 year, \$175K awards. Next deadline: September 18, 2024
- **Engineering Research Initiation (ERI)** [NSF 22-595](#) - supports faculty from non-R1 institutions who have not yet received federal funding. 2 year, \$200K awards. No 2024 deadline is posted yet.

Select Programs as Entry Pathways into NSF

- **Building Research Capacity of New Faculty in Biology** [NSF 22-500](#) - supports new faculty at universities that are not among the top research intensive institutions. 3 year, \$450k awards (plus \$50 for equipment). Submission window: May 1 to July 1, 2024.
- **ECR: Building Capacity in STEM Education Research** [NSF 22-548](#) - supports projects that build investigator's capacity to carry out STEM education research. 3 year, \$350k awards. Next deadlines: Feb 23, 2024; Feb 28, 2025.

Possible Pathways for Single/New Investigators

CAREER	⇒		Research directorate
Research Initiation Award	⇒	Excellence in Research	⇒ Research directorate
Directorate Pathway Program	⇒	Excellence in Research	⇒ Research directorate
Research Initiation Award	⇒	CAREER	⇒ Research directorate
Directorate Pathway Program	⇒	CAREER	⇒ Research directorate

Get your foot in the door at NSF ...

CAREER: Studies in Hadronic Structure and Dynamics

Award Number:9733343; Principal Investigator:Jose Goity; Co-Principal Investigator:; Organization:Hampton University;NSF Organization:PHY Start Date:09/01/1998;
Award Amount:\$249,968.00; Relevance:96.0;

Hadronic Structure and Dynamics

Award Number:0300185; Principal Investigator:Jose Goity; Co-Principal Investigator:; Organization:Hampton University;NSF Organization:PHY Start Date:09/01/2003;
Award Amount:\$170,651.00; Relevance:96.0;

Hadronic Structure and Dynamics

Award Number:0555559; Principal Investigator:Jose Goity; Co-Principal Investigator:; Organization:Hampton University;NSF Organization:PHY Start Date:09/01/2006;
Award Amount:\$196,739.00; Relevance:96.0;

Hadronic and Nuclear Structure and Dynamics

Award Number:0855789; Principal Investigator:Jose Goity; Co-Principal Investigator:; Organization:Hampton University;NSF Organization:PHY Start Date:09/01/2009;
Award Amount:\$225,000.00; Relevance:96.0;

Hadronic and Nuclear Structure and Dynamics

Award Number:1307413; Principal Investigator:Jose Goity; Co-Principal Investigator:; Organization:Hampton University;NSF Organization:PHY Start Date:06/01/2013;
Award Amount:\$214,243.00; Relevance:96.0;

Hadronic and Nuclear Structure and Dynamics

Award Number:1613951; Principal Investigator:Jose Goity; Co-Principal Investigator:; Organization:Hampton University;NSF Organization:PHY Start Date:06/15/2016;
Award Amount:\$289,812.00; Relevance:96.0;

Hadronic and Nuclear Structure and Dynamics

Award Number:1913562; Principal Investigator:Jose Goity; Co-Principal Investigator:; Organization:Hampton University;NSF Organization:PHY Start Date:08/01/2019;
Award Amount:\$239,948.00; Relevance:96.0;

Identifying the program to submit to

- Spend some time looking at options to make sure you have the right home for your proposal
- Read the solicitation or program webpage carefully
- Talk to the program officer
 - Submit a concept outline, ask for a meeting to discuss
- See what was previously funded

When to contact the program director (PD)

- For Excellence in Research, you are strongly advised to contact the PD..
- For RAPID, EAGER, RAISE, planning proposals, you must submit a concept outline to the PD or via ProSPCT (see PAPPG Chapt II F).
- For conference/workshop proposals, equipment proposals, or supplements I suggest that you contact the PD with a concept outline.
- If your idea does not clearly fit into a program or if you are unsure that it is a good fit for NSF, contact one or more PDs.
- If you plan to submit a research proposal, it is a great idea to contact a PD.
- If you are responding to a solicitation like HBCU-UP or S-STEM and the expectations are clearly described, there may not be a need to contact a PD, as long as you adhere to the solicitation and PAPPG guidelines.

Preparing a Concept Outline

A concept outline is a concise summary of a project idea that contains information about:

- the prospective PI(s),
- potentially germane NSF organizational unit(s),
- project title,
- keywords,
- brief narrative descriptions of the idea and fit to any special criteria required for the proposal type or funding opportunity.

Please follow PAPPG guidelines.

The primary purpose of requiring a concept outline is to ensure that the concept being proposed by the prospective PI is appropriate for the proposal type/funding opportunity.

Tips on contacting program directors

- Generally sending an e-mail is better than calling; it is ok to follow-up after a few days if no response is received
- Do not mass email - multiple program directors may work on a program, talking to many creates redundancy
- Be specific in what you are asking for:
 - advice on where to submit an idea
 - feedback on a concept outline to a program
 - procedural advice (be sure to first look for the answer in the PAPPG or solicitation)
- Send your CV if you are interested in serving on a panel or being considered for ad hoc reviews

Reminder:

Program Directors are *your* peers

Post Award issues to consider when writing the grant

- Budget - seek assistance from your SRO
- Timeline
- Scope of work
- Plan B for everything
- Collaborators/co-PIs/advisors

It helps if the program director knows you

“I just want to do my research!”

- Make sure you focus on *your* research
 - Be mindful of what collaborations you join
 - Find the funding opportunity that supports the research you want to do
- Design the grant to answer your research questions...and solve problems for you
- Integrate your research with all other responsibilities, but keep your passion in all you do

Remember: the goal is not to get a grant. The goal is to advance your research.

NSF grants *enable you* to advance knowledge

- What do you need in order to be a successful researcher?
- How can you “buy” more time?
 - Summer salary or maybe course release
 - More efficient hardware or software
 - Stipends for student assistants
 - Outsourcing services
 - Part time administrative support
- How can you increase the scope/breadth/rigor of your research agenda?
 - Professional development opportunities & training
 - Conferences, workshops
 - How can the project you are proposing set up the next project?

Some additional tips

- Ask for help - it's ok to not have it all figured out
- Get feedback on your proposal or anything that you write
- Find your “team”, your go-to-persons
- Meet with your chair regularly
- Get to know your SRO team
- Get to know NSF program directors

Ask yourself this

*Do you understand, cultivate and guard the most impactful and unique aspects of your work as a scholar? Not what an **institution** or **mentor** prioritizes and **tells** you is important through metrics, **rewards**, reprimand and mentoring as **imprinting**, but the unique thing you offer?*

-Dr. Beronda Montgomery

Questions/thoughts

crankins@prisse.com