Joint Chemistry and EHR Office Hour

Today's Topic: HBCU EiR

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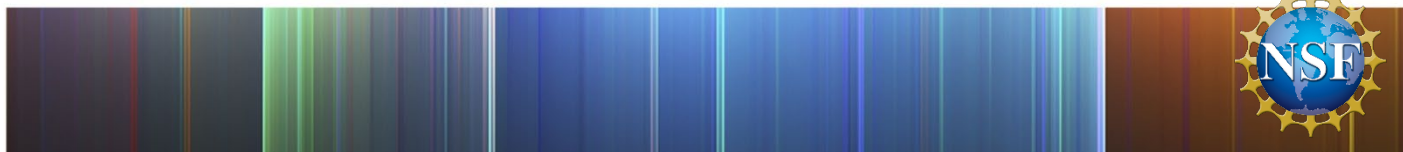
July 10, 2020



Members of the HBCU EiR Working Group

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- Jodie Jawor

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- **Claudia Rankins**
- **Michelle Claville**

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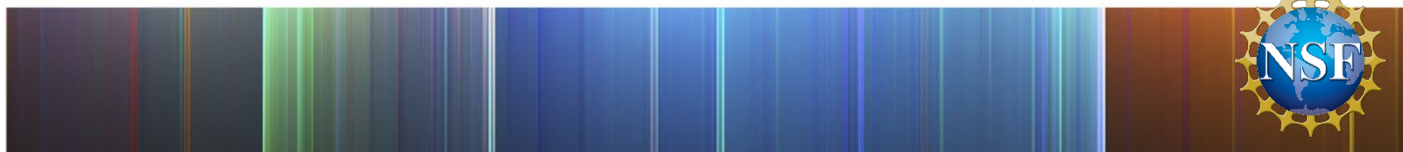


HBCU Excellence in Research (EiR)

- The **HBCU Excellence in Research (HBCU EiR)** program was developed in FY 2018 in response to a Congressional mandate to increase support for research at HBCUs.

- The HBCU EiR solicitation NSF 20-542 and other information can be found at https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505765. **Much has changed in this solicitation from when HBCU-EiR was part of the HBCU-UP program.**

- HBCU EiR supports projects that enable STEM and STEM education faculty at HBCUs **to conduct research** and to further develop research capacity.

HBCU Excellence in Research (EiR)

- HBCU EiR aims to accelerate support of research at HBCUs across NSF's full portfolio.

- The key to success is to identify the program as the secondary one to which your proposal will be sent for review and where it will be housed, and to connect with a PO of that program before submitting a proposal.

- The next deadline is **October 6, 2020** with **Letter of Intent due July 23, 2020.**

Submission and Review Processes

- Letter of Intent: **July 23, 2020**

- Full proposal: Primary unit of consideration, “OIA Office of Integrative Activities" as the primary division and "Excellence in Research" as the primary program.

- Then select, as a secondary unit of consideration, the most appropriate division and program to which the proposal will be initially routed for review.

Return without Review

- Note that this list is NOT comprehensive.
- A proposal that is not research focused, such as curriculum development, student/faculty centered activities, or student access. While some of these activities could be part of an education or outreach effort, they cannot be the focus of the proposal.
- NSF will return without review proposals that do not follow stated guidelines in the PAPPG and solicitation (e.g., page lengths, margins, etc.). A letter from the chair, dean or chief academic officer is required.
- The proposal is in an area of research that is not within the purview of NSF.

Areas of Research Suitable for Chemistry

Chemical Synthesis (6878)
Chemical Catalysis (6884)
Chemical Theory, Models, and Computational Methods (6881)
Chemical Structure, Dynamics, and Mechanisms A (9101)
Chemical Structure, Dynamics, and Mechanisms B (9102)
Chemical Measurement and Imaging (6880)
Environmental Chemical Sciences (6882)
Chemistry of Life Processes (6883)
Macromolecular, Supramolecular, and Nanochemistry (6885)

Areas of Research not Suitable for Chemistry

- Clinical research and drug development
- Research more suitable for other NSF divisions: Materials research, Chemical Engineering, Earth Sciences, etc
- NSF Chemistry website: Each program lists areas of research that they do not support

Finding the right CHE program

NSF award search:
https://www.nsf.gov/awardsearch/advancedSearch.jsp,
program element code: 9102 for CSDMB

Contact a Program Officer (s):

Suitability for the program

Budget Guideline

Likely review mechanism

Merit Review: Mail Review

Send proposals to 6-8+ mail (ad hoc) reviewers; aiming for three or more reviews

Identifying reviewers:
Program Director's knowledge (who's doing what in the given research area)
Reviewer data base
Chemical literature
References listed in proposal
Recent programs of scientific meetings
Web searches of authors, scientist web pages (ISI & Scirus search engines)
Investigator's suggestions

Merit Review: Panel Review

Panel members composed of researchers active in related fields

Usually 2-3 panelists provide written reviews

May also have mail reviews

Panel ranks proposal (e.g., High Priority, Medium Priority, Low Priority)

Panel summary

Common Proposal Flaws

- Poor writing, presentation, organization or use of graphic images. Proposal written for the wrong audience. Core ideas not described early and clearly.
- A core idea that appears incremental.
- Missing key references, which is a failure to demonstrate deep knowledge of the field.
- A plan that is too narrow in scope.
- Obvious mistakes in the science. All it takes is one sharp-eyed reviewer to sink a proposal.
- Lack of preliminary “proof of concept” results or publications.
- Failure to convince reviewers that you will succeed and become a major player in this field of science.
- Missing or poorly developed broader impacts.

Tips to improve your proposals

- Pay attention to broader impacts
- Suggest reviewers
- Explain EiR in project description
- Follow a “Standard” proposal format
- Volunteer to review for NSF

DoS

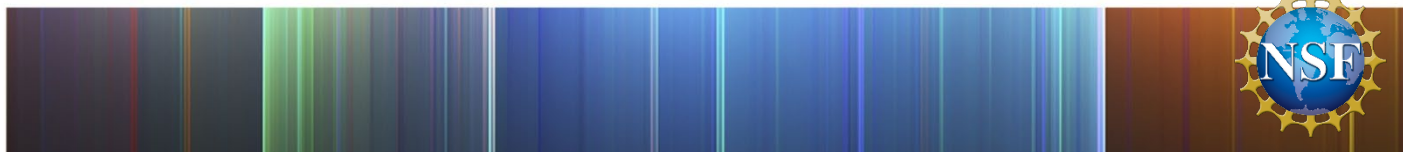
- Make sure you are applying to the right program.
- Make your proposal easy to read and understand.
- Use figures and schemes appropriately and strategically (They should make a point.)
- Make your proposal look professional and attractive.
- Seek examples of proposals from other NSF awardees.
- Ask more experienced colleagues to critique your proposal.
- Make sure your chair letter is ready to go.

Don'Ts

- Wait until last minute and rush to get the proposal submitted
- Make the proposed work too broad
- Make the proposed work too narrow
- Leave out essential details
- Make it overly technical
- Have an unrealistically large or small budget: proper budget
- Ignore rules and formatting parameters
- Make figures too small or have them placed at random

The Project Summary

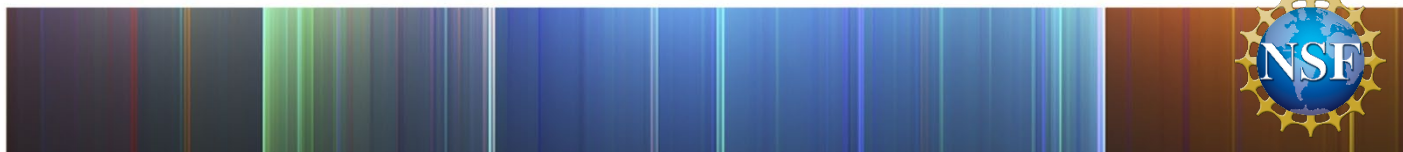
- Summary overview: what you want to do, objectives
- intellectual merit of the proposed activity: why this is important
- broader impacts of the proposed activity: scientific and educational



Project Description

- Introduction: Background, Significance, Objectives
- Results from Prior NSF Support (if applicable) / preliminary results
- Research Plan
- Broader Impacts
- Expected Outcomes, challenges, alternative plans, timelines

The proposal should be self-contained and give the reviewers enough information to review it.



Broader Impacts

NSF values the advancement of scientific knowledge and activities that contribute to the achievement of outcomes that have a positive impact on the society.

Broader impacts may be accomplished:

- through the research itself,
- through the activities that are directly related to specific research projects,
- or through activities that are supported by, but are complementary to the project.

Examples of outcomes:

- full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM);
- improved STEM education and educator development at any level;
- increased public scientific literacy and public engagement with science and technology;
- development of a diverse, globally competitive STEM workforce;
- increased partnerships between academia, industry, and others;
- improved national security;
- increased economic competitiveness of the US
- enhanced infrastructure for research and education.
- Include an assessment plan.