

CREST HBCU-RISE Informational Webinar

SONAL DEKHANE
PROGRAM DIRECTOR, NSF

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Agenda

- Overview of CREST HBCU-RISE
- Proposal Preparation
- Merit Review
- General Tips

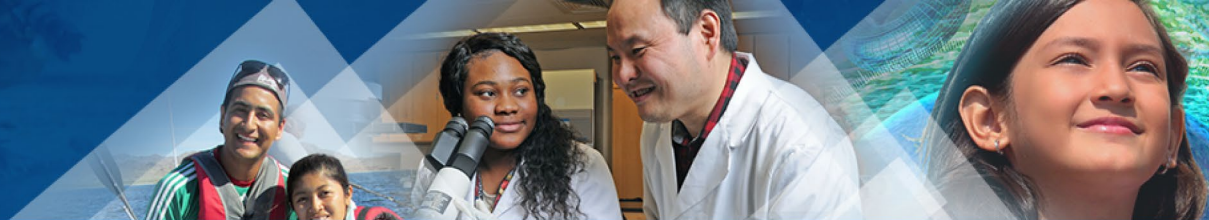




HBCU-RISE

- Solicitation – [23-565](#)
 - Previously under 18-509
- Deadline – December 1, 2023
- Duration: 3 years
- Amount: \$1.2M
- Estimated number of awards: 5
 - Contingent on availability of funds and submission of meritorious proposals

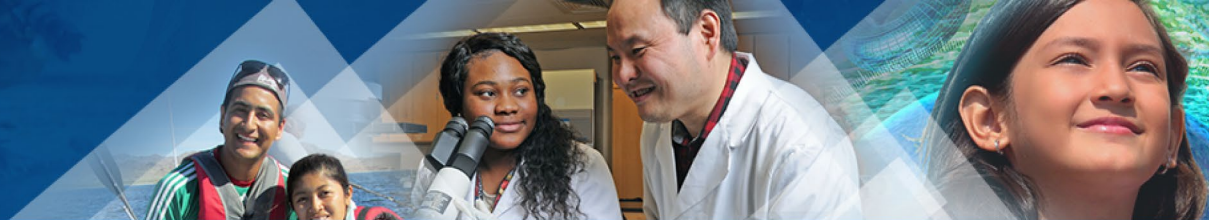




HBCU-RISE Overarching Goals

- Part of the overarching CREST program
- Expansion of institutional research capacity of HBCUs
- Successful training of doctoral students in STEM, especially those from underrepresented groups at HBCUs
- **Capacity building grant**

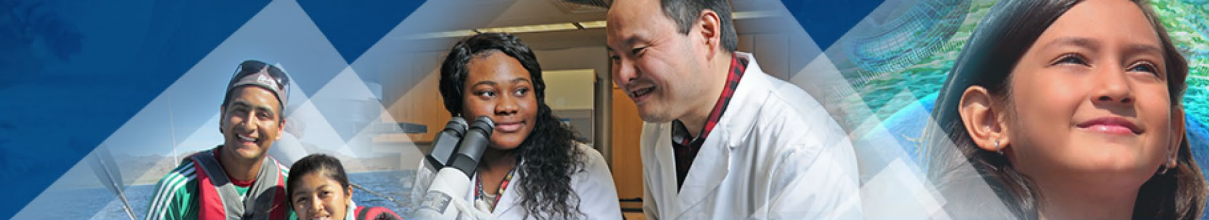




HBCU-RISE Research Areas

- [NSF supported areas](#)
- Areas of national interest
 - data science and analytics; advanced materials, manufacturing, robotics; cybersecurity; plant genetics/agricultural technologies; quantum information sciences; nanotechnology, semiconductors/microelectronics technologies; climate change and clean energy
- [CHIPS and Science Act of 2022](#) – semiconductor research
- [Industries of the Future](#) – advanced manufacturing, AI, nanotechnology, etc.
- [Understanding the Brain](#) – cross-disciplinary research to understand the full complexity of brain
- [DOE Earthshots](#) – clean energy solutions





Eligibility and Limitations – Institutional Responsibility

- Institutions - HBCUs that offer doctoral degrees in STEM
- PIs – full-time faculty appointment
- Number of Submissions
 - one active HBCU-RISE award per institution, irrespective of the area of focus
 - Proposal may be submitted if the institution has an existing HBCU-RISE award if the existing award ends before the new one begins
 - One proposal per institution
 - One proposal per PI/co-PI



Key Elements





HBCU-RISE Key Elements

- Capacity building and production of doctoral students in STEM
- Direct connection to host department and institution's priorities
- Involvement of underrepresented groups at all levels
 - Undergraduate and graduate students, post-docs, faculty
- Synergy between education and research
- Internal steering committee - PI, co-PIs, and other applicable stakeholders





HBCU-RISE Key Elements

- Employ modern and relevant curricula, provide relevant research experiences to students
- Strategy for recruitment, mentoring, retention and graduation of students from underrepresented groups in STEM
 - Including women, persons with disabilities, veterans and racial and ethnic minorities
- Strategy for connections with other NSF-funded awards at the institution which are related to the proposed project's goals and scope





HBCU-RISE Key Elements

- Commitment and Sustainability
 - Leverage award to obtain additional funding from other sources
 - Academic/industry partnerships, other federal/state/local agency support
 - Commitment to long-term organizational change to increase research productivity
 - Financial and organizational sustainability and institutionalization of project activities
 - Letter of support from Provost or equivalent official





Examples of Supported Activities

- Faculty release time
- New faculty hire and start-up funding
- Faculty professional development
- Acquisition or upgrading of research equipment
- Development of advanced new curricula/courses
- Collaborative research efforts with partnering institutions/national labs
- Recruitment, mentoring and retention of doctoral students
- And more...

Alignment with proposed goals and expected outcomes is important



Proposal Preparation





Required Components – Project Summary (1 page)

- Overview of the project – what, why, how
- Research focus and goals for education and broadening participation in STEM
- Intellectual Merit and Broader Impacts as separate sections
- Alignment with program goals + clarity
 - Read by many as proposal goes through the review process
 - Opportunity to capture reader's interest

Solicitation Pages 6-9





Required Components – Project Description (15 pages)

- Problem Description and Rationale for Selected Approach
 - Provide a context for your project – what is happening now and how will your project change it
 - Project alignment with institutional priorities and HBCU-RISE goals
 - SMART project goals
 - Baseline data and literature review
 - Institutional support for, and financial and organizational sustainability of the project
 - Creative integration of NSF-funded awards at the institution





Required Components – Project Description

- Education and Human Resource Development Objectives
 - Activities that support faculty and students in setting up a research agenda and progressing in their careers
 - Integration of educational and research activities
 - Use of evidence-based practices
 - Recruitment and retention of students
 - Mentoring and professional development of students and faculty

Provide sufficient information to assess intrinsic merit and potential effectiveness – be explicit, provide some details





Required Components – Project Description

- Research Objectives
 - Overall vision and long-term goals
 - Research plan, roles of participants and potential impacts
- Provide sufficient information to assess scientific merit
- Remember that this is a capacity building proposal





Required Components: Project Description

- Evaluation Plan
 - How will you know that your project is successful?
 - External evaluator with appropriate training and expertise – objectivity is key
 - Logic model with short and intermediate term outcomes
 - Formative and summative evaluation
 - Evaluation of impact of the award on accomplishing institutional transformation
- Results from Prior NSF Support – Outcomes and impacts





Required Components

- Budget and Budget Justification
 - Alignment with project goals and activities – indicates priorities
 - Do you need a project coordinator?
 - Categories in the budget and budget justification should be aligned
 - Budget justification should provide enough details and rationale to support the requests
 - Sufficient funds for post-docs, graduate students, etc. – consider equity
 - Justification and quotes for items costing more than \$25,000
 - Financial support for students (Stipends) – US citizens, nationals or permanent residents
 - Stipends should not replace other needs-based grants and scholarships
 - Funding for project personnel to attend PI meetings





Budget

- Separately submitted collaborative proposals are not allowed and will be returned without review
- Collaborating institutions other than the lead institution should be treated as subawardees
- Funding should align with subawardee institution's efforts
- Total funding to subawardee institutions cannot exceed 10% of the total budget





Required Components – Supplementary Documents

- Ethics Plan
 - Plan for training faculty, post-docs and students in ethics, responsible conduct of research and intellectual property
- Shared Experimental Facilities
 - Maintenance and operation of facilities, organizational commitment and support, resources to ensure effective use, user fees and plans for future operations and maintenance
- Students Mentoring Plan
 - Required if funding is requested for undergraduate/graduate students
- Letters of Support and Collaborations - 2-page limit for each



Merit Review





Merit Review

Both criteria, **Intellectual Merit** and **Broader Impacts**, will be given full consideration during the merit review and decision-making process. Each criterion is necessary but neither, by itself, is sufficient. Proposers must fully address both criteria.

The following elements will be considered in the proposal's review:

What is the potential for the proposed activity to

- advance knowledge and understanding within its own field or across different fields (**Intellectual Merit**); and
- benefit society or advance desired societal outcomes (**Broader Impacts**)?





Merit Review

- To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
- 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?
- How well qualified is the individual, team, or institution to conduct the proposed activities?
- Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?





Additional Solicitation Specific Review Criteria

- To what extent are the proposed activities likely to enhance institutional research capacity?
- Is there a demonstrated need for HBCU-RISE funding for the expansion of research capacity?
- Is the development of doctoral program capacity adequate?
- Is the proposed research aligned with the long-term plans of the host department(s) and the institutional mission?
- Are plans for expanding institutional research capacity as well as increasing the production of doctoral students, especially those from groups underrepresented in STEM who are U.S. citizens, nationals, or permanent residents, adequate?
- Is the strategy for the creative integration of NSF-funded awards at the institution adequate?
- Is the institutional support for and financial and organizational sustainability of the project adequate?



General Tips





General Tips

- Respond to the solicitation
 - Ensure that your project is a good fit for the program that you are applying to
 - Identify key requirements of the program, which could be distributed throughout the solicitation
 - Identify required components/documents of the program
 - Familiarize yourself with solicitation-specific review criteria
 - The narrative should align with program goals and respond to program requirements
 - Consider if the project scope is appropriate for the duration and the funding

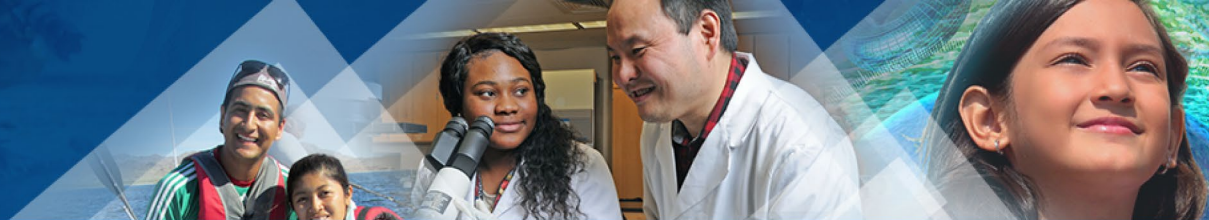




General Tips

- Ensure that you have the necessary expertise on your team
 - External evaluator
 - Advisory board
 - Content experts
 - Broadening Participation experts
 - Education researchers
- Ensure that you have sufficient resources for your project – existing, budgeted or partnerships
- Ensure that you have institutional buy-in and support
 - Address sustainability and long-term plans





Final Thoughts

- Notify us of your research area to identify reviewers with appropriate expertise
- Propose possible reviewers for your proposals
- Want to review for us?
 - <https://www.surveymonkey.com/r/D6J8S3M>
- [CREST Homepage](#)
- [HBCU-RISE Solicitation](#)
- [PROPOSAL AND AWARD POLICIES AND PROCEDURES GUIDE](#)



Questions?

SDEKHANE@NSF.GOV
LCUBANO@NSF.GOV



HBCU-RISE CREST Reviewer Survey

