



MISSISSIPPI RESEARCH CONSORTIUM

September 23, 2016

Dear Scientists,

Attached please find a request for preproposals for the National Science Foundation's FY 2017 Experimental Program to Stimulate Competitive Research (EPSCoR) Research Infrastructure Improvement (RII) Track-1 competition. The EPSCoR Program is designed to fulfill the mandate of the National Science Foundation (NSF) to promote scientific progress nationwide. As an eligible jurisdiction, Mississippi is allowed to compete for this funding, with the purpose of establishing partnerships with government, higher education, and industry that are designed to effect sustainable improvements in the state's research infrastructure, Research and Development (R&D) capacity and competitiveness. RII Track-1 awards provide up to \$20 million total for 5 years to support physical, human, and cyber infrastructure improvements in research areas selected by the jurisdiction's EPSCoR steering committee as having the best potential to improve future R&D competitiveness of the jurisdiction.

The Mississippi Research Consortium (MRC) is the steering committee authorized to designate a fiscal agent/proposing organization for Mississippi. This organization must be the employing institution of the Project Director. In order to determine which application should be put forth as our jurisdiction's proposal, the MRC holds a competition based on brief preproposals. The attached document provides more detail about EPSCoR's objectives and details the preproposal submission process. Preproposals are due to your institution's chief research officer by close of business on Friday, November 18, 2016. If you have questions not answered by the attached request for preapplications, please consult your institution's chief research officer.

I look forward to a robust competition among numerous preapplications as we all continue to work towards the improvement of our state's research competitiveness.

Sincerely,

A handwritten signature in black ink, appearing to read "Gordon Cannon". The signature is fluid and cursive, written over a white background.

Gordon C. Cannon, PhD
Mississippi Research Consortium Chair and
Vice President of Research
The University of Southern Mississippi



MISSISSIPPI RESEARCH CONSORTIUM

REQUEST FOR PREPROPOSALS

**Mississippi Research Consortium Submission to the
National Science Foundation Experimental Program to Stimulate Competitive Research
(EPSCoR) Research Infrastructure Improvement (RII-Track 1) Program**

IMPORTANT NOTE: The five MRC Working Groups that were funded in spring 2016 are especially encouraged to submit a preproposal, as indicated in their award notification letter from the MRC Chair, Dr. Gordon Cannon.

Overview:

The Mississippi Research Consortium (MRC), invites preproposals in anticipation of next year's NSF EPSCoR RII-Track 1 Request for Proposals.

The mission of EPSCoR is to assist the National Science Foundation in its statutory function "to strengthen research and education in science and engineering throughout the United States and to avoid undue concentration of such research and education." EPSCoR goals are to a) provide strategic programs and opportunities for EPSCoR participants that stimulate sustainable improvements in their R&D capacity and competitiveness, and b) advance science and engineering capabilities in EPSCoR jurisdictions for discovery, innovation, and overall knowledge-based prosperity.

Comprised of the Chief Research Officers (CRO) at Jackson State University, Mississippi State University, the University of Mississippi, and the University of Southern Mississippi, MRC serves as the EPSCoR State Advisory Committee for Mississippi.

EPSCoR OBJECTIVES:

The primary objective of EPSCoR is to stimulate research that is fully competitive in the disciplinary and multidisciplinary research programs of the National Science Foundation.

Specific EPSCoR objectives are to:

- catalyze key research themes that empower knowledge generation, dissemination, and application;
- activate effective jurisdictional and regional collaborations that advance scientific research, promote innovation, and benefit society;
- broaden participation in science and engineering (S&E) by institutions, organizations, and people within EPSCoR jurisdictions; and
- use EPSCoR for development, implementation, and evaluation of future programmatic experiments that motivate positive change and progression.

Pursuit of these goals and objectives bolsters the capacity of jurisdictions to:

- enhance discovery and learning through utilization of cyberinfrastructure and other evolving technologies;
- develop the diverse, well-prepared, internationally competent and globally engaged STEM workforce necessary to sustain the nation's competitive edge;
- facilitate knowledge generation leading to economic development; and
- expand the scientific literacy of all citizens, and disseminate to them the importance of STEM research and education.

The preproposals should incorporate NSF's focus of transformative research – “research that has the capacity to revolutionize existing fields, create new subfields, cause paradigm shifts, support discovery, and lead to radically new technologies,” as well as the EPSCoR objectives listed above. Researchers may propose any appropriate thematic area. Previous themes are allowed, but are at neither advantage or disadvantage for the upcoming EPSCoR program. Preproposals should be strongly aligned with Mississippi's Science and Technology Plan (<http://www.mississippiresearch.org/static/ST-Plan.pdf>).

Researchers are strongly encouraged to form partnerships among the four research institutions when preparing the preproposal.

Any faculty member at Jackson State University, Mississippi State University, the University of Mississippi (including the Medical Center campus), or the University of Southern Mississippi, is eligible to submit a preproposal as PI, and there is no limit to the number of preproposals on which an individual can participate as a proposed PI, co-PI, or Senior Person. PIs may wish to include as Senior Personnel individuals from other Mississippi colleges and universities, including regional universities and community colleges. The preproposal should be no longer than 8 pages (competitive funding information is not included in the 8 pages) from teams of investigators outlining existing or planned research projects with emphasis on the above mentioned. These preproposals will be evaluated by MRC to determine the project theme for MRC's 2017 EPSCoR RII-Track 1 proposal. Although financial details will not be available until the new RFP is issued by NSF in Spring 2017, based on previous RFPs, funding for the 5 year project is expected to be approximately \$4M per year, totaling \$20M.

Preproposals Due: Friday, November 18, 2016

Submit preproposals to the Chief Research Officer at your home institution:

JSU: Dr. Loretta Moore, loretta.a.moore@jsums.edu
MSU: Dr. David Shaw, dshaw@research.msstate.edu
UM: Dr. Josh Gladden, jgladden@olemiss.edu
USM: Dr. Gordon Cannon, gordon.cannon@usm.edu

The preproposals must contain the following elements, in the order presented here:

1. Cover Sheet to Include:

Name of Institution(s) Involved:

Addresses of Institutions:

Name of Faculty/Researchers w/E-Mail/Office Phone and Cell Phone/Mail Address:

(PI(s) and Senior Investigators must provide a signature (electronic signatures will suffice) for the preproposal to be reviewed)

Title of Proposed Project:

List Participating Departments:

List Project Discipline(s):

Project Abstract: (250 words maximum)

2. Project Description:

Science: Describe the scientific research program. How it is cutting edge and how can national competitiveness be enhanced. Research should be aligned with the MRC's State's Science and Technology (S&T) Plan (attached). Please include the intellectual merit and broader impacts of your project. Describe any barriers that currently impede your progress.

Planned/Existing Research and its Relevance to the research infrastructure in

Mississippi: Funding supports physical, human, and cyberinfrastructure improvements in research areas selected by the jurisdiction's EPSCoR steering committee as having the best potential to improve future R&D competitiveness of the jurisdiction.

Education and Outreach: Address your plans for K-12, undergraduate, graduate, informal science education, and professional development.

Collaboration: Describe the nature and the extent of your collaborations, keeping in mind that the initiative requires multi-institutional involvement. Partnerships with

government agencies, national laboratories, and private industries are encouraged. Describe an organization chart and management plan.

Facilities: List current facilities available for developing this theme.

Competitive Funding: List current and pending support for each participant (standard NSF format, form attached).

NOTE: Please be mindful that if your proposal is selected after review by the MRC, you will need to address all the components listed in the solicitation (i.e. diversity, sustainability, workforce development, evaluation, etc.) during your presentation to the MRC (see *Assessment of Preproposals* section, below). The most recent EPSCoR RII-Track 1 RFP is available at the following URL: <https://www.nsf.gov/pubs/2016/nsf16557/nsf16557.htm>

Assessment of Preproposals: All preproposals will be reviewed first by the Chief Research Officer (CRO) at the lead PI's home institution. If approved, the preproposal will be submitted by the CRO for consideration by the MRC officers. Researchers with top ranked preproposals could be asked to make a presentation to the MRC. The MRC expects to make a decision in January 2017 about which idea to develop into a full proposal for submission to NSF in summer of 2017.

Preproposal Submission:

The preproposal, formatted as a single pdf document, should be e-mailed to the researcher's home institution's CRO **no later than the close of business (5:00 p.m.) on Friday, November 18, 2016**. An e-mail acknowledging receipt of the preproposal will be sent to the researcher from the CRO's office. Failure to receive an acknowledgement by noon on Monday, Nov. 21, 2016, indicates that the preproposal has not been received and will not be considered for review.

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