

**Subject: [RestrictedFEDERALproposals]** Major Research Instrumentation Program: (MRI) Instrument Acquisition or Development--NSF 18-513

## **Major Research Instrumentation Program: (MRI) Instrument Acquisition or Development NSF 18-513**

### **INTERNAL DATES:**

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Internal Proposal due: November 26, 2018

### **AGENCY:**

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Agency: <https://www.nsf.gov/>

Solicitation Number: <https://www.nsf.gov/pubs/2018/nsf18513/nsf18513.htm?org=CCF>

### **AMOUNT OF THE AWARD:**

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\$100,000 - \$999,999 for Track 1 Proposals

\$1,000,000 - \$4,000,000 for Track 2 Proposals

Up to \$999,999 for proposals in the disciplines of mathematics or social, behavioral and economic sciences.

REQUIRES COST SHARING of **precisely** 30% of the total project budget. See example calculation in ADDITIONAL INFORMATION below.

### **FUNDING OPPORTUNITY DESCRIPTION:**

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The Major Research Instrumentation Program (MRI) serves to increase access to multi-user scientific and engineering instruments for research and research training in our Nation's institutions of higher education, not-for-profit museums, science centers and scientific/engineering research organizations. MRI provides support to acquire critical research instrumentation without which advances in fundamental science and engineering research may not otherwise occur and provides support to develop next-generation research instruments that open new opportunities to advance the frontiers in science and engineering research.

### **REQUEST FOR PROPOSALS:**

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The MRI Program is intended to assist with the acquisition or development of a single research instrument that is, in general, too costly and/or not appropriate for support through other NSF programs. An instrument acquired or developed with support from the MRI program is expected to be operational for regular research use by the end of the award period. The program does not fund research projects, including research that uses an instrument acquired or developed with support from the program. The program does not support the operation and maintenance of facilities or centers.

The MRI Program provides for state-of-the-art instruments through acquisition from vendors and development of next-generation research instruments that advance the state-of-the-art in science and

engineering research. For development proposals the Program seeks to leverage the strengths of private sector partners to build instrument development capacity at MRI submission-eligible organizations.

#### **AREAS OF RESEARCH SUPPORTED:**

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Major Instrumentation Acquisition or Development

See Additional Information below.

#### **NUMBER OF PROPOSALS:**

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MIT may participate in up to three (3) proposals: no more than two (2) proposals in Track 1 and no more than one (1) proposal in Track 2.

MIT's participation as a subawardee will count toward the above limits.

**Proposals involving MIT as a subaward recipient must also submit the required materials listed below.**

#### **SUBMISSION DEADLINES:**

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Internal Proposals due: November 26, 2018

Full Proposals due to OSP: January 14, 2019

Proposals due to sponsor: January 22, 2019

#### **WHO MAY SUBMIT:**

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All individuals with MIT PI status meeting the solicitation requirements.

#### **ELIGIBILITY:**

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Proposals for a major research instrument should describe the types of research for which they will be used. These should be in fields of science, engineering, mathematics or education research that are typically supported by NSF programs. However, as long as they are in such NSF-supported fields, the specific research projects for which the instrumentation will be used need not be funded by NSF or the Federal government.

A development proposal must describe the improved performance of the new instrument over existing options and the expected impact of this new instrument on the broader research community.

#### **SUBMISSION MATERIALS:**

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Please submit the following nomination materials to [ypr-contact@mit.edu](mailto:ypr-contact@mit.edu) as one (1) PDF by November 26, 2018.

- **Cover page** that includes a list of investigators and senior personnel, their contact information, departmental affiliation, the track for the submission, and the proposal

title. (e.g. "MRI: Acquisition of \_\_\_\_\_," or "MRI: Development of \_\_\_\_\_." Finalists will NOT be able to change the proposal track;

- **Project Description** (two page maximum) that outlines the need and rationale for the instrumentation, a description of the instrument to be purchased or developed and the estimated impact/benefit to the research community;
- **Project Budget and Justification** including sources (and appropriate DLC approvals) of the required 30% cost share. Include quote(s) for Acquisition proposals; and
- **NSF Biosketch** (two page maximum) of lead PI.

#### ADDITIONAL INFORMATION:

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The MRI program will NOT support proposal requests that include any of the following:

- Construction, renovation or modernization of rooms, buildings or research facilities. This category refers to the space where sponsored or unsponsored research activities (including research training) occur, whether "bricks-and-mortar", mobile, or virtual;
- Large, specialized experimental facilities that are constructed with significant amounts of common building material using standard building techniques. Instruments in general can be decoupled from the structure or environment that contains them;
- General purpose and supporting equipment; this category includes (but is not limited to) general purpose ancillary computers or laboratory instruments. Supporting equipment refers to basic, durable components of a research facility that are integral to its operation (e.g., fume hoods, elevators, laboratory casework, cryogen storage systems, general-purpose computational or data storage systems). It also includes supporting facilities such as vehicle charging stations.
- Sustaining infrastructure and/or building systems. This category includes (but is not limited to) the installation of or upgrades to infrastructure related to the supply of power, ventilation, water or research gases, routine multi-purpose computer networks, standard safety features, and other general purpose systems (e.g., toxic waste removal systems and telecommunications equipment.)
- General purpose platforms or environment. This category may include (but is not limited to) general purpose fixed or non-fixed structures as well as manned or unmanned vehicles whose role is to host or transport an instrument.
- Instrumentation used primarily for science and engineering education courses. Other programs at NSF (e.g., the Improving Undergraduate STEM Education (IUSE) program), provide funding for the development of exemplary courses and teaching practices, including instrumentation to support such projects.
- Instrumentation to be used in medical education.
- Instrumentation intended for research with disease-related goals, including work on the etiology, diagnosis or treatment of physical or mental disease, abnormality, or malfunction in human beings or animals, is normally not supported.

- Instrumentation for research on animal models of such conditions or the development or testing of drugs or other procedures for their treatment

The MRI program WILL support

- Instrumentation for bioengineering research, with diagnosis- or treatment-related goals that applies engineering principles to problems in biology and medicine, while also advancing engineering knowledge.
- Instrumentation for research in bioinformatics and biocomputing, or for bioengineering research to aid persons with disabilities, is also eligible.

Example Cost Share Calculation

<b>Total Project Costs</b> (TPC)	<b>MIT Cost Share</b> (MITCS)	<b>NSF Budgeted Funds</b> (NSFBF)
\$2,000,000	2,000,000*.3 = \$600,000 TPC * .3 = MITCS	\$2,000,000 – \$600,000 TPC -MITCS = NSFBF

Please contact Cathy Borgesen at [borgesen@mit.edu](mailto:borgesen@mit.edu) with any questions.

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