



From: Faculty Research Development Office
Office of the Vice President for Research

Subject: Limited Competition: NSF- MRI: Major Research Instrumentation Program (NSF 15-504)

Date: October 3, 2017

If you are affiliated with HSC, please contact Corey Ford at 272-6950 for more information.

The Major Research Instrumentation (MRI) Program serves to increase access to shared instrumentation for scientific and engineering research and research training in our Nation's institutions of higher education and not-for-profit-museums, science centers and scientific/engineering research organizations. The program seeks to improve the quality and expand the scope of research and research training in science and engineering, by providing organizations with opportunities to acquire instrumentation that supports the research and research training goals of the organization. The program emphasizes shared-use instrumentation that will enhance the capabilities of researchers both within and outside the proposing organization. Development efforts that leverage the strengths of private sector partners to build instrument development capacity at MRI submission-eligible organizations are encouraged.

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.

Proposals to the MRI Program, must be for *either* acquisition (Track 1) *or* development (Track 2), and must be for only a single, well-integrated instrument. A well-integrated research instrument means that the ensemble of equipment that defines the instrument enables a specific research experiment or type of research experiment to be undertaken; separating or removing an element or component of such an integrated instrument would preclude any experiments from occurring or succeeding. The MRI program does not support the acquisition or development of a suite of instruments to outfit research laboratories/facilities or to conduct independent experiments simultaneously. Similarly the MRI program does not fund common, general purpose ancillary equipment that would normally be found in a laboratory and/or is relatively easily procured by the organization. Further guidance on appropriate requests can be found in the MRI FAQs at <http://www.nsf.gov/od/iaa/programs/mri>.

This program invites applications for instrument acquisition proposals, which have a project period of up to three years and instrument development proposals, which have a project period of up to five years. The anticipated earliest start date is August 1, 2018. Proposals may request funds in the range \$100,000-\$4 million. Proposals that request funds from NSF less than \$100,000 will also be accepted from any MRI-eligible organization for the disciplines of mathematics or social, behavioral and economic sciences. Cost-sharing of precisely 30% of the total project cost, *not* 30% of the NSF request, is required. The cumulative amount requested from NSF must be exactly (to the nearest dollar) 70% of the Total Project Cost and the total cost sharing shown on the budget form must be exactly (to the nearest dollar) 30% of the Total Project Cost. Further

details can be found at <http://www.nsf.gov/pubs/2015/nsf15504/nsf15504.pdf> The due date for this year's full proposals to NSF is January 10, 2018.

This is a limited competition. The MRI program requires that an MRI-eligible organization may, as a performing organization, submit or be included as a significantly funded subawardee in no more than three (3) MRI proposals. *If three proposals are submitted, at least one of the proposals must be for instrument development (i.e., no more than two proposals may be for instrument acquisition).*

Please submit your 3-page preproposal addressing the review criteria below (plus budget overview, cost share budget and abbreviated CV; all documents in a SINGLE PDF file, 11 point font) by NOON on Wednesday, November 8, 2017 to limited@unm.edu with the subject line indicating: NSF MRI (designate "Acquisition" or "Development") - your name. No late submissions will be considered.

Priority for selection will be given to preproposals that provide evidence that (1) this instrument will be broadly shared, servicing multiple educational and/or scientific users, and (2) that there is a plan for the mandatory cost sharing. Arrangements for meeting mandatory cost sharing requirements must be made in advance of submission of the pre-proposal and will be used as criteria for evaluation during the internal Limited Competition review. This year, the OVPR has budgeted \$300,000 for cost sharing for MRI proposals; this is the total amount, not the amount per proposal. Investigators must identify *other* sources of cost sharing (e.g., department, college or foundation) that will cover at least 40% of the required cost share contribution.

Pre-proposals should address these major points and review criteria to be used by the limited competitions committee:

Instrument acquisition proposals: Provide a technical description of the requested instrumentation that clearly explains why the requested equipment is needed. Describe how the instrument will serve to attract researchers and make a substantial improvement in the institution's capabilities to conduct leading-edge research. Describe the specific research and research training activities and projects that will be enabled with the desired instrumentation, and any sources that may support those activities and projects. Provide business and management plans with information on space, technical staffing for operations and maintenance, training of users, access for external users, and the sources of funding and plans for long-term operations and maintenance.

Instrument development proposals: Provide rationale for the new instrument, a description of the design concept, and development strategy and methods. Describe the expected capabilities of the instrument upon completion, and its likely availability for shared use at the end of the award period. Justify the necessity and adequacy of the new instrumentation for the proposed research projects, with reference to instruments that are currently available. Explain how the end result of the effort be a stable shared-use instrument, rather than technology development, a device, a product or a technique. Describe how the instrument will serve to attract researchers and make a substantial improvement in the institution's capabilities to conduct leading-edge research. Describe the specific research and research training activities and projects that will be enabled with the desired instrumentation, and any sources that may support those activities and projects. Provide management plans for the design, construction and commissioning phases of the project, including discussion of required personnel and anticipated costs in each phase of the project, risk mitigation, and knowledge transfer upon completion.

If you have any questions please feel free to contact limited@unm.edu.