



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

Subject: Limited Competition: NSF, Major Research Instrumentation (MRI) Program (NSF 23-519)

Date: May 3, 2024

UNM Researchers,

The NSF Major Research Instrumentation (MRI) Program serves to increase access to multi-user scientific and engineering instrumentation for research and research training in higher ed. institutions. An MRI award supports the acquisition of a multi-user research instrument that is commercially available through direct purchase from a vendor, or for the personnel costs and equipment that are required for the development of an instrument with new capabilities, thereby advancing instrumentation capabilities and enhancing expertise for instrument design and fabrication at academic institutions. MRI provides support to acquire critical research instrumentation without which advances in fundamental science and engineering research may not otherwise occur. MRI also provides support to obtain next-generation research instruments by developing instruments with new capabilities that open new opportunities to advance the frontiers in science and engineering research. Additionally, an MRI award is expected to enhance research training of students who will become the next generation of instrument users, designers, and builders. MRI encourages proposals that facilitate U.S. leadership in microelectronics research and training.

An MRI proposal may request up to \$4 million for either acquisition or development of a research instrument. Each performing organization may submit in revised "Tracks" as defined below, with no more than two (2) submissions in Track 1 and no more than one (1) submission in Track 2 or Track 3.

**Any MRI proposal may request support for either the acquisition or development of a research instrument or an upgrade of an existing research instrument. Within their submission limit, NSF strongly encourages an organization to submit proposals for innovative development projects.**

- Track 1: Track 1 MRI proposals are those that request funds from NSF greater than \$100,000 and less than \$1,400,000.
  - Track 1 proposals requesting funds from NSF less than \$100,000 will be accepted only to support research in the disciplines of *mathematics or social, behavioral and economic sciences*.
- Track 2: Track 2 MRI proposals are those that request funds from NSF greater than or equal to \$1,400,000 up to and including \$4,000,000.
- Track 3: Track 3 MRI proposals are those that request funds from NSF greater than or equal to \$100,000 and less than or equal to \$4,000,000 that include the purchase, installation, operation,

and maintenance of equipment and instrumentation to conserve or reduce the consumption of helium.

Applications for instrument acquisition proposals have a project period of up to three years and development proposals have a project period of up to five years. Further details can be found in the program solicitation: <https://new.nsf.gov/funding/opportunities/major-research-instrumentation-program-mri/nsf23-519/solicitation>. The due date for this year's full proposals to NSF is **October 15, 2024**.

**This is a limited competition.** UNM is limited to no more than two (2) submissions in Track 1 and no more than one (1) submission in Track 2 or Track 3 for a total of four (4) possible UNM submissions as either lead or a significantly funded subaward. We will be conducting a two-step internal competition to ensure we have a review committee in place by the pre-proposal deadline. **You must complete both steps if you are interested in participating.**

**STEP ONE:** Please enter your ~100-word **statement of interest** by **NOON on June 13, 2024** in UNM's **InfoReady Review portal**. This is a required step, and no late submissions will be considered.

**STEP TWO:** Submit an abbreviated budget, 2-page CV, and a 3-page pre-proposal that clearly states:

- **Research Instrument and Needs.**
  - An **acquisition proposal** should include a technical description of the requested instrumentation and clearly explain how the planned research drives the request. If applicable, the existence and availability of comparable instrumentation (e.g., at organizations in close geographical proximity, or otherwise accessible through collaborations or cyberinfrastructure) should be discussed and justification for the requested instrument should be made clear.
  - A proposal to **develop an instrument** must clearly explain how the planned research drives the needed instrument capabilities and must make clear that those capabilities are not available through an instrument purchase.
- **Research Activities to be Enabled.** The degree to which the planned uses of the proposed instrumentation constitute exciting, ground-breaking and/or transformative research is a significant factor in the merit review evaluation of MRI proposals. Describe the specific research project(s) and research training activities that will be enabled by the equipment. Also describe current and potential funding sources that may support these activities and/or how the instrument will better enable future funding support.
- **Unit Strategic Plan.** Explain how this instrument contributes to your unit's strategic research plan and enhanced capability for the department(s) or center(s).
- **Broader Impacts (Including Impact on Research and Training Infrastructure).** Explain the extent to which the proposed project will make a substantial improvement in the organization's capabilities to conduct leading-edge research, to provide research experiences for undergraduate students using leading-edge capabilities, and to broaden the participation in science and engineering research.
- **Users.** Describe the extent to which the instrument will be used for multi-user, shared-use research and/or research training. Include a list of prospective users (faculty, staff, post docs,

students, etc.), including their department affiliations, and the focus of their research.

- **For Track 2 proposals requesting over \$1.4 million ONLY:** address the potential impact of the instrument on the research community of interest at the regional or national level.
- **Management Plan.** Describe the physical location of the proposed instrument and the space or the facility in which the instrument will be placed. Include a management plan for how and by whom the requested instrumentation will be operated and maintained over the expected lifetime of the instrument. Describe any installation costs or additional equipment you will need outside the grant request to make the requested instrumentation operational.

Please submit your 3-page pre-proposal (plus abbreviated budget and 2-page CV for all personnel; 11-point font) by **NOON on June 20, 2024** via UNM's [InfoReady Review portal](#). You will receive an email when the InfoReady competition has been converted from the SOI application to the pre-proposal application, but you can work on your documents outside the system before that. No late submissions will be considered.

All applications will be routed to the relevant ADRs or Center Directors for approval and a brief statement of how this instrument will support their unit's strategic research plan. If multiple applications are submitted by the same unit, the ADR/Center Director will be asked to rank the applications.

Priority for selection will be given to pre-proposals that provide evidence that (1) this instrument will be broadly shared, servicing multiple educational and/or scientific users, and (2) it clearly supports a strategic priority for the department/center/college (i.e., evidence from a unit-level strategic plan or other similar types of documentation for meeting a unit-level priority).

If you have any questions, please contact [limited@unm.edu](mailto:limited@unm.edu).

*If you are affiliated with HSC, please contact HSC Limited Competition at [HSC-LimitedComps@salud.unm.edu](mailto:HSC-LimitedComps@salud.unm.edu) for more information.*