

Call for 2-Page Concept Papers

This announcement solicits 2-page concept papers proposing topics for the next NSF EPSCoR RII Track-1 project for the state of Montana.

Concept papers must be submitted by 5 pm on Wednesday, May 26, 2021 to your campus Chief Research Officer to ensure full consideration.

About EPSCoR. The EPSCoR Research Infrastructure Track-1 (RII Track-1) program is designed to fulfill the NSF's mandate to promote scientific progress nationwide by providing opportunities to jurisdictions underrepresented in the agency's research portfolio.

The RII Track-1 program provides up to \$20M over five years to support a focused multi-disciplinary and multi-institutional integrated research, education, and broader impacts project in topical areas identified by the jurisdiction's EPSCoR steering committee and viewed as having the best potential to improve future R&D competitiveness.

More information about the RII-Track 1 program can be found here:

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503429

Timing and call. The current Montana EPSCoR RII-Track 1 project is expected to end on September 30, 2023. The deadline for proposal submission to the NSF for Montana's next RII-Track 1 project will be in late July or early August 2022. If the proposal is awarded, the next Montana RII-Track 1 project will begin around October 1, 2023.

Individuals or groups of faculty interested in proposing scientific topics for the next EPSCoR proposal should submit a short concept paper pitching their idea and articulating how the proposed topic addresses the goals of the RII Track-1 program.

Authors of the selected topic will work with the state EPSCoR office and Professor Rob Walker (Chemistry and Biochemistry/Materials Science at MSU) who will be the next Project Director and PI. There will be a collaborative process to develop the scientific scope of a far-reaching, inter-disciplinary research program involving scientists from across Montana.

The selection process will involve several steps:

- Webinar and Q&A sessions
 - 1pm on April 21, 2021 (REGISTER HERE: <https://umontana.zoom.us/meeting/register/tJAtc-6hrz8rE9DIuQsOFTJf-Z2B4C2tX3jx>)
 - 2pm on April 29, 2021 (REGISTER HERE: <https://umontana.zoom.us/meeting/register/tJAvdOugrD4pE9UFGktdLh-8V3BWZzy2cFXo>)
- Concept papers are due by 5pm May 26, 2021
- Concept paper screening by MUS chief research officers (CROs) and Montana NSF EPSCoR leadership (June-July, 2021)
- Selection of 2-3 concept papers for white paper development (3-5 pages) (August, 2021)

- White papers due for CRO, Montana Science and Technology Committee (MSTC), and external review (early September, 2021)
- Project recommendation by CROs, MSTC, and external reviewers (October, 2021)
- Project approval by the Commissioner of Higher Education (October, 2021)
- Full team and proposal development (November, 2021)

Faculty interested in leading an RII-Track 1 science thrust should be aware that proposal development, project execution and overall administration is demanding. RII Track-1 projects are unique in their approach and requirements among NSF funding opportunities. They stimulate research competitiveness through a focused multi-disciplinary and multi-institutional integrated research, education, and broader impacts project with clearly defined objectives, activities, and milestones over a 5-year period. Research participation in a Track-1 award requires developing a detailed strategic plan, networking among the full array of project participants, and engaging in extensive outreach, diversity, and mentoring programs.

What is needed now: A concept paper no longer than 2 pages (including figures and tables but not including references or an optional cover page). Concept papers exceeding the 2-page limit will not be considered. The concept paper should propose a research topic which will develop and broaden Montana’s research competitiveness. At this point, broader impacts are not requested.

The concept paper should include the project title, an early estimate of the contributing faculty (including institutions and departments) and should frame the research concept in terms of NSF criteria including the project’s multi-disciplinary facets as well as its intellectual merit. Authors are not expected to propose a full, statewide team at this point, but potential participating colleagues at other Montana institutions should be included, along with their departments.

To be successful, RII Track-1 projects need to address state and national NSF priorities and meaningfully integrate existing research and education capacity and infrastructure across Montana for sustainable outcomes. All topics will be considered, but this table shows priorities recently identified in the Endless Frontiers Act which are anticipated to become a strong focus for NSF funding decisions in the coming years. The Montana University System CRO’s support advancing one or more (in an integrated way) of these areas for a Track-1 project.

- Artificial intelligence and machine learning
- High performance computing, semiconductors, and advanced computer hardware
- Quantum computing and information systems
- Robotics, automation, and advanced manufacturing
- Natural or anthropogenic disaster prevention
- Advanced communications technology
- Biotechnology, genomics, and synthetic biology
- Advanced energy technology
- Cybersecurity, data storage, and data management technologies
- Materials science, engineering, and exploration relevant to the other focus areas

Any inquiries should be directed to Joe Thiel, Director of Academic Policy and Research, OCHE (jthiel@montana.edu)