**Minnesota Partnership
for Biotechnology and
Medical Genomics**

**UNIVERSITY
OF MINNESOTA**

MAYO CLINIC

PLEASE READ CAREFULLY

**Request for Research
Proposals**

LOIs due 7/11/23
APPLICATIONs due 9/26/23

Objective

The objective of the Minnesota Partnership for Biotechnology and Medical Genomics (MN Partnership) is to position
Minnesota as a world leader in biotechnology and medical genomics applications that will result in important new medical discoveries, thereby improving health care for patients and supporting the development of new businesses and jobs in Minnesota.

The MN Partnership is funded by the State of Minnesota and forms a Collaboration between the University of Minnesota (UMN) and the Mayo Foundation for Medical Research (Mayo). The Collaboration will review and fund collaborative research projects that uniquely recognize and incorporate the strengths of University and Mayo investigators, and which will advance the understanding of disease or disease process and have a high expectation for success.

Award Information

Since 2003, the MN Partnership has awarded over $180M for 160 competitive collaborative projects, which have in turn attracted over $175M in additional funding.

What is the award amount and duration?

- We anticipate at least 4 awards in the $1,000,000 to $1,500,000 range (total costs, direct + indirect) for 2 years. Project costs must be adequately justified and are subject to adjustment prior to the issuance of an award.
- Applications requesting greater than $1,500,000 in total costs must provide rigorous justification.
- Year 2 funding is dependent on having shown significant progress towards specific milestones provided in the proposal during Year 1.

What types of projects are eligible for funding?

In 2023, the MN Partnership's focus will continue to be on funding projects that are specifically part of **a plan to be awarded a competitive team application for large, center-level funding within 3 years of current award initiation**.

- "Center-level funding" = at least $1M/year in direct costs for at least 3 years. Examples include NIH P and U grants or hub programs, NSF center grants, and numerous DoD, ARPA-H, and private foundation mechanisms (note that major multi-partner project grants typical of DoD programs, such as via DARPA, are also considered "Center-level funding").

- Projects must have a high expectation for successful completion of project goals in **two years.** PIs will be required to identify project milestones that must be met to ensure continuation of funding past Year 1

Applications from teams in all areas of human health are eligible, but we are particularly interested in projects in:

- **Alzheimer's disease** and other dementias, particularly prevention, treatment, causes, and cures. Based on a commitment from the MN State Legislature, **we expect to support at least one Alzheimer's-related grant)**
- Cellular therapies
- Organoids, cellular engineering, microphysiological systems

- Scaling multi-omics: integration of multiple-omics datasets (genomics, transcriptomics, epigenomics, proteomics, metabolomics, microbiome, etc.) for population-level healthcare analysis
- Regenerative medicine and transplant
- Neuroscience and neuro-engineering
- Technology platforms for novel diagnostics, sensors and therapeutics
- Data science and machine learning applied to healthcare
- Topics related to ARPA-H interest areas such as Health Science Futures, Scalable Solutions, Proactive Health and Resilient Systems (see https://arpa-h.gov/).

Who can serve as the Principal Investigator (PI)?

- Projects must have two faculty Co-PIs – one from UMN and one from Mayo. Projects must be a joint UMN and Mayo project that strongly leverages both institutions.
- Projects must have a strong team of Co-Is from both institutions

Schedule and Deadlines

LOIs Due	July 11, 2023 by 4:30 p.m.
Full Proposal Invitation	August 8, 2023
Full Proposal Due	September 26, 2023 by 4:30 p.m.
Awards Announced	December 2023 (date TBD)
Earliest Start Date	January 1, 2024

Application Components and Submission

How does one apply?

Letters of Intent (LOI) and applications must be completed and submitted online at https://umnmed.infoready4.com/#competitionDetail/1904873.

Any prospective PI must create a login in the system to access application materials and apply. **A faculty member may apply as Co-PI for only one grant per cycle**. There is no limit to the number of grants on which a faculty member can participate on as a Co-I.

<u>**Step 1: Competitive Letter of Intent Submission**</u>

The letter of intent is limited to **two pages** and must include:

1. **Principal Investigator Information:** Names and contact information for the two co-PIs
2. **Title:** Title of the application
3. **Description:** A brief description of the goals as well as research and organizational plans of the project to seek center-level funding.
4. **Project Team:** The role of both Co-PIs and their respective research teams. Please include a figure/schematic showcasing the depth and breadth of the team capable for pursuing center-level funding.
5. **Objectives and Milestones:** Plans for advancing to a center-level grant application(s). Please provide anticipated results and proposal submission milestones to achieve this center-level application goal over the 2-year period of the grant. Examples might include the need for specific preliminary results; setting up essential partnerships and contracts (e.g., commercial or academic partners); hiring key personnel who are critical for center-level applications and execution (e.g., center grant writer or seasoned director in specific field, skilled center project manager, DEI/outreach coordinator, etc.);

and/or submission of an interim proposal such as a T32, multi-PI R01, or other relevant grant submissions.

6. **Budget:** The total budget requested for a two-year study. Applications requesting greater than $1,500,000 in total costs must provide rigorous justification.

The LOI must be single-spaced with ½-inch margins on all sides and with Arial or Helvetica typeface 11 pt. font or larger (minimum 9 pt. for text in tables and figure captions).

NIH-style biosketches (up to 5 pages per biosketch) for both Co-PIs and all Co-Is should be included in the same file. If any partners who are not Co-Is but critical to the success of building the proposed center or multi-partner program, please include their biosketches as well. These biosketches should align and support the team figure/schematic provided with the proposal.

Each LOI will be reviewed by a joint UMN-Mayo review panel for potential impact, strength of the project team and plan, degree to which project is enhanced by the UMN-Mayo collaboration, and potential for leading to a competitive center-level grant application.

Applicants invited to submit a full proposal will be notified by August 8, 2023.

Step 2: Full Proposal Submission (by Invitation only)

Full proposals must include the following:

1. **Basic Information:**
   a. Proposal title
   b. Names, degree(s), academic rank, and institutions of Co-PIs and Co-Is. Identify the contact PI. Co-Is listed should be individuals who will play a prominent role on the project.
   c. Funding request: direct and indirect costs for both UMN and Mayo and grand total.

2. **Abstract:** Provide a summary of the project (not to exceed 1/2 page).

3. **Research/Program Plan:** Provide a full description of the proposed research and program plan towards building a center and submitting a center-level application: Background, Objectives/Hypotheses, Aims and Milestones, Prior Work Summary (both separately and as a team), Research Plan, and Programmatic/Administrative Plan (relating to building the infrastructure and resources that will support the proposed center and center-level application).

4. **Synergy of Co-PIs and Teams:** Describe how the collaboration between Mayo and UMN is necessary to the success of the project and a future center-level grant application. Also describe the role of the two Co-PIs (and their teams) on the project and which project components will be performed at Mayo and which at UMN. Please include a figure, table, and/or schematic to visualize the team structure and individual roles, with further description of how the team members collectively enhance the likelihood to succeed at securing center-level funding.

5. **Center-level Grant Submission:** Describe how the proposed research will lead to a center-level grant application. Include an approximate timeline for submission and, if possible, the specific center-level mechanism you are aiming for (e.g., a specific NIH P or U grant RFA, anticipated DARPA and DOD center grant opportunities, etc.). Proposals that plan to submit multiple center-level applications, especially during the funded period and for identified funding opportunities, will be scored more favorably.

6. **Milestones and Timeline:** Please provide critical results, project outcomes, and proposal submission milestones that will be tracked over the course of the grant and why these milestones/achievements are likely and critical towards building a center and developing a

successful center-level application. For example, obtaining necessary preliminary results that make the team eligible for a specific center funding opportunity; setting up essential partnerships and contracts (e.g., commercial or academic partners); hiring key personnel who are critical for center-level applications and execution (e.g., center grant writer or seasoned director in specific field, skilled center project manager, DEI/outreach coordinator, etc.); developing a key resource that positions the team in an advantageous position for a specific center funding opportunity; and/or submission of interim proposals that will support a center such as a T32, multi-PI R01 or other relevant grant submissions.

7. **Societal Impact:** What is the healthcare and/or societal impact of this work? What will the center lead to in terms of societal impact? Does this work support or synergize with other major initiatives or entities in the State to enhance healthcare, quality of life, education, technology, DEI efforts, and/or economy within Minnesota and potentially on a global level.

8. **Layperson Summary:** Provide a summary of the project that could be understood by a lay audience (not to exceed 1/2 page).

Page limit for items 1-8 is 10 pages, ½-inch margins on all sides, single-spaced, Ariel or Helvetica typeface, 11 pt. font or larger (minimum 9 pt. font for table and figure text), fully contained in a **single PDF file. <u>Additional pages and attachments, except as noted below, will be ignored.</u>

9. **References**

10. **Letters of Support:** Include letters of support that do not exceed 1 page each. This can include letters from key partners, or service providers.

11. **Biographical Sketches:** Include NIH-style biosketches for each Co-PI and all Co-Is. The "Ongoing and Completed Projects" section (below the Personal Statement) should highlight funding related to the proposed project.

12. **Resources and Equipment:** Provide a listing of key resources and equipment at the two institutions available for the project. Please also include any gaps in resources/equipment that can be enhanced by the award.

13. **Budget:** Provide a single line-item budget showing direct and indirect costs, along with two separate budgets for expenditures at the UMN and Mayo, each showing direct and indirect costs. Each institution should include full Facilities and Administrative (F&A) rates for their portion of the project (i.e., do not treat either institution as a subcontractor for purposes of determining indirect costs). Direct costs include all allowable NIH costs, and faculty salary requests should be based on the current NIH cap if appropriate. Indirect calculations for equipment, patient care costs, etc., should be consistent with NIH policies. Budgets should reflect a start date of January 1, 2024.

Special instructions for UMN faculty: A Proposal Routing Form (PRF) is not required. However, your department may wish to approve your proposal prior to submission.

The deadline for complete proposals is **September 26, 2023 at 4:30 pm.**

Applications must be submitted electronically as a **single** PDF file using the link sent in the invitation to submit a full proposal.

Reporting Requirements:

Reporting requirements will be issued upon notice of award. Co-PIs (with their teams) will be expected to have shown significant progress towards specific milestones provided in the proposal during Year 1 in order to continue funding into the 2nd year of the award. Milestones throughout the entire project will be closely tracked; funding can be terminated at any time if milestones are not sufficiently achieved in a timely manner.

Outcomes will continue to be tracked following the funding period for additional reporting to the state.

Additional Information:

Questions about the application process should be directed to the specific contact below for your institution.

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