M.J. Murdock
CHARITABLE TRUST

Guidelines
Partners in Science 2.0 Grant Application

PURPOSE AND BACKGROUND

Partners in Science has been a program supported by the Murdock Charitable Trust for about 35 years. The program's purpose is to engage secondary science teachers (both in-service and pre-service) in authentic and innovative research experiences in a university lab or other research institution so these teachers will more effectively guide their students through the processes of science in creating new knowledge. The program enables teachers (Partners) and academic scientists (Mentors) to collaborate in the advancement of science, with the goal that both will grow professionally in the process.

In June 2023, the Murdock Trust approved the transition to a different program delivery model, similar to the National Science Foundation's Research Experience for Teachers (RET) Sites grant. The Trust is seeking grant applications to fund research experiences for secondary science teachers on university campuses or qualified research institutions. Institutions (individually or collaboratively with other nearby institutions) can apply for a renewable three-year grant to run the research experience for 3-4 partnerships each year. Grantee institutions would be responsible for recruiting, supporting the partnerships through providing research opportunities and professional development (research-focused), and administering the grant.

The Murdock Trust will provide two annual conferences: a four-day Teaching Practices Conference at the end of July for the teachers to support the translation of the research experience into teaching science inquiry more effectively in the classroom; and a two-day Research Symposium in January for both the teachers and their mentors. The Research Symposium will include a keynote speaker, teacher research presentations, workshops supporting the implementation of research in the classroom, and more. The Trust will cover the costs of the hotel, food, and other general conference expenses.

GRANT GUIDELINES

Research experiences:

- Each partner participates in 2 summers (8 weeks strongly encouraged, 7 weeks minimum with justification) of research in the natural sciences.
- For in-service (IS) and pre-service (PS) secondary school science teachers—the inclusion of pre-service teachers is encouraged, but optional. The number of pre-service teachers must not exceed 50% of the total partners selected.
- Three to four new partnerships for each year of the three-year grant. Note: There is a fourth year no-cost extension in order for cohort three to complete two summers of research.
- We highly encourage a 1:1 ratio of mentor: partner. Some overlap is acceptable (ex. Mentor A hosts partner A year 1 and 2, and then hosts partner B year 2 and 3); however, please make sure each partner has a different project.

Eligibility:
- Colleges and universities (both private and public), as well as other qualified research Institutions (ex. Biomedical Institutes) in the Trust's five-state funding region (Alaska, Idaho, Montana, Oregon, and Washington) and Trinity Western University in British Columbia.

Who may submit proposals:
- One proposal per institution may be submitted by a university grants administrator. The principal investigator (PI) and co-PIs (other Mentors) must have an active research program as evidenced by grants and/or publications and hold an appointment in a natural science department.

General expectations:
- The Partners in Science 2.0 program intends for teachers to take off their "teacher hats" and fully immerse themselves in the research experiences. Funding and time to develop curriculum during the research experience are not supported. Having the teacher-researcher supervise secondary school students in the laboratory is also not supported. Each partner should be guided and supervised by the principal investigator or a senior research member of the lab during the duration of each summer.

APPLICATION GUIDELINES

Prior to preparing the Partners in Science 2.0 Application

To initiate grant application submission, the grants administrator will register through the Submittable grants portal to initiate the grant application and will invite the lead principal investigator and others to collaborate on completing the application. More details on this will be provided via email when the call for proposals goes out.

SELECTION CRITERIA

- All aspects of the proposed project are clearly and thoroughly outlined.
- The research plans have a clearly identified purpose and design. All teacher-partners proposed research is realistic, coherent, engaging, and powerful for generating valid and reliable data within the 7- to 8-week timeline.
- Benefits to the researcher and institution are specified and clearly describe both direct and indirect ways the partnerships will strengthen the research or college programs.
- Thoughtful descriptions are provided for cohort integration and longer-term impacts/outcomes beyond the two summers of research.

GRANT APPLICATION SUBMISSION PROCESS

See Instructions and Checklist: Partners in Science 2.0 Grant Application