



COLORADO STATE UNIVERSITY

**Data Science Research Institute
Office of the Vice President for Research**

Request for Proposals:

**“DISCOVER: Data Science Integration for Collaborative and Versatile
Research”**

Program Overview

CSU’s Data Science Research Institute (DSRI) is pleased to announce a request for proposals for seed grant funding for DISCOVER: Data Science Integration for Collaborative and Versatile Research.

We are seeking multi/inter/transdisciplinary research proposals for building new collaborations in the field of data science with an emphasis on real world applications. The primary objective of this call is to foster new collaborations and position the DSRI affiliate faculty to be competitive for larger scale funding in data science research. In particular, we seek proposals that address established and emerging areas of data science including, *but not limited to*:

- Digital humanities
- Data driven life sciences
- Agriculture and big data
- Foundational tools in machine learning and artificial intelligence
- Data engineering
- High-performance computing for data science

The program objectives and anticipated outcomes are as follows:

- Translate knowledge and research into tangible innovations, algorithms and tools that could be scaled for impact.
- Leverage pilot program funding to increase extramural funding opportunities from state, federal, foundations, philanthropic and corporate sponsors.
- Encourage and support transformative multidisciplinary research team formation.
- Increase visibility of the Data Science Research Institute at state, national and international levels.
- Build a community of researchers at DSRI in key strategic areas.

Program Description

This funding will support teams and initiatives that address the development of novel applications, algorithms or theory. Proposals should address research programs that can lead to tangible impactful outcomes (including peer reviewed publications, presentations and external funding opportunities). Applications are expected to provide explicit information for a follow-up external funding proposal that will be submitted at the end of the funding period and that includes DSRI in some capacity. Research teams can expect involvement/support from the DSRI throughout the program.

Accountability

Teams will meet with staff from the DSRI for a midpoint check-in to review progress, discuss challenges and receive feedback. The awards committee will also use progress on milestones to allocate funding and reserves the right to halt or withdraw funding at the midperiod review if a team fails to meet reasonable expectations at the mid-point review regarding progress. Awardees are required to participate in the DSRI affiliate events as both attendees and presenters.

Requirements

- The PI on the proposal must be a current affiliate of the DSRI. Any full-time CSU faculty can serve as co-PIs and/or team members. A full list of DSRI affiliate members and

instructions on how to join the affiliate list are available on the [DSRI website](#).

- Applications must include collaborations between multiple disciplines. Proposals involving colleges are highly encouraged, as are proposals including collaborations with external partners.
- Applicants are required to provide detailed information within the application identifying a minimum of one planned follow-up external funding proposal that will be submitted at the end of the funding period. This external funding plan and proposal should involve participation from DSRI in some capacity. **Awardees are required to participate in the DSRI affiliate events as both attendees and presenters.**

Recommendations

- Projects should outline their proposed use of the DSRI's high-performance computing cluster [Riviera](#). Investigators should reach out to DSRI systems administrator Bill Carpenter (bill.carpenter@colostate.edu) with any questions about access, use, or introductions to using high-performance computing.
- Collaborations with disciplines that do not traditionally use data science are highly encouraged.

Funding Mechanism

Approximately \$100,000 is available to support research under this call. Awards under this mechanism are expected to range from \$15,000 to \$50,000. Cost sharing from departments and colleges is highly encouraged with the target 50%-25%-25% (DSRI – college – department).

Limitations of Expenditures

Project budgets are intended to fund costs associated with project personnel, including graduate student salary/tuition and technicians or postdocs, as well as materials and supplies directly related to project activities. Costs to host conferences/workshops/events, capital equipment or support for external partners are ineligible. Costs for faculty salary support and travel must be well justified.

Timeline

It is anticipated the funding period will run for 12 months: March 2024 through March 2025.

- **Dec. 1, 2023:** RFP announced, open forum at DSRI affiliate meeting.
- **Feb. 1, 2024:** Proposals due by 5:00 p.m. MST.
- **Feb. 28, 2024:** Anticipated awardee notification.
- **Mar. 15, 2024:** Anticipated project start date.
- **Sep. 15, 2024:** Midperiod review.
- **Mar. 14, 2025:** Project end date.

Proposal Format

Formatting, all sections: 1.5-spaced, 12-point Times New Roman font with 1" margins.

Proposals should include the following documents/elements, **each uploaded as separate PDFs**:

1. **Cover Page (1 page max):** include the title of the proposal; the research foci; the PI name, department with signature from PI department chair, college, and contact information; and a list of team members, with associated department and college affiliations.
2. **Project Description (3 pages max):** provide a description of your proposed project. Describe the interdisciplinary nature of the team and why an interdisciplinary approach is necessary to address the proposed research focus. Outline how completion of the proposed activities will result in sustained inter/transdisciplinary efforts, including discussion of the external funding opportunities the team will pursue. Indicate how completion of the proposed activities will position the team for the proposed funding opportunity the team will pursue. Please list the specific opportunity for external funding that will be pursued. Describe how the proposed work will consider and contribute to diversity, equity, and inclusion goals of the university.
3. **Project Plan and Progress Milestones (1 page max):** provide a project plan including specific activities, key milestones, deliverables and include anticipated external funding targets. The awards committee will also use progress on milestones to allocate funding and reserves the right to halt or withdraw funding at the midperiod review if a team fails

to meet reasonable expectations at the mid-point review regarding progress.

4. **Team Composition Plan (1 page max):** briefly describe the team composition and the roles of each team member. Discuss how postdoctoral researchers, graduate students, and undergraduate students will be engaged, as applicable.
5. **Budget (1 page max):** provide a line-item budget using the template provided.
6. **Budget Justification (1 page max):** provide a brief justification of anticipated costs.
7. **References (no page limit):** include all references cited, in the order they appear in the text.
8. **Biosketches (3-5 pages max):** provide a biosketch in NIH format (5 pages) or NSF format (3 pages) for all key personnel.

Review Criteria

1. Quality of the project indicated by scope of work, leveraging of DSRI high-performance computing resources (e.g., *Riviera*), anticipated benefits/impact on DSRI, CSU, and any potential partners or strategic initiatives.
2. Viability of proposed activity demonstrated by meaningful outcomes, partnerships, and the potential to secure extramural funding from identified sponsors.
3. Quality and scope of milestones.
4. Suitability of the PI and team, including evidence of collaboration across disciplines.
5. Reasonableness of budget (including faculty salary, optional cost shared or leveraged funds, as appropriate).
6. Overall assessment (additional consideration will be given to proposals that are cross-disciplinary in nature, involve non-traditional data science topics, and/or that increase/support diversity, equity and inclusion or seek to remove disparities in research and scholarship).
7. Ranking.

Proposal Submission

Please submit proposals via InfoReady by **5:00 p.m. MST on Feb. 1, 2024**. Proposals will be reviewed by an interdisciplinary team of highly qualified reviewers including DSRI affiliates. It is anticipated that awardees will be notified via email on or before Feb. 28, 2024.

All submissions must be made through CSU's InfoReady Review portal, accessible at: <https://colostate.infoready4.com>. To apply:

1. From the opportunities list found at <https://colostate.infoready4.com/>, locate the “**CSU-DSRI DISCOVER**” opportunity, and click on the title to open the opportunity page.
2. From the opportunity page, click “Apply”.
3. Use your CSU NetID and password to log into InfoReady Review.
4. Complete and upload all required components. You can save your application as a draft prior to submission.
5. Be sure to submit your application. Applications left as “draft” will not be reviewed.
6. Please note, **the system will not accept applications after 5:00 pm on the due date.**

Contact Information

Please contact Michael Kirby (Michael.Kirby@colostate.edu) for additional opportunity information or clarification.

Please contact Dinaida Egan (Dinaida.Lopez@colostate.edu) for questions regarding the InfoReady submission system.