Picker Interdisciplinary Science Institute

*The mission of the **Harvey Picker Interdisciplinary Science Institute** at Colgate University is to foster the creation of new knowledge that is obtainable only through the development of sustained interdisciplinary research. The Institute supports internal and external collaborations among faculty who bring expertise from different disciplines to bear on current and emerging scientific problems that remain intractable to the methods used within a single discipline. The Institute also encourages interdisciplinary approaches to learning through innovative curricular and research opportunities for students that may arise from the pursuit of interdisciplinary research projects.*

Picker Interdisciplinary Science Institute
Request for Major Grant Proposals (*up to $150,000 per year*)

Pre-proposal Deadline: Monday, November 27, 2023
Full Proposal Deadline: Friday, January 26, 2024

Major Grant Proposals are solicited for funding from the Picker Interdisciplinary Science Institute (Picker ISI). Projects with annual budgets up to $150,000 per year for up to two years will be considered, with funding beginning as soon as March. Applicants are encouraged to discuss possible projects with the Institute Director (Ahmet Ay) or members of the Executive Advisory Committee (listed below) before beginning proposal preparation. Descriptions of previously funded projects are available at:

GUIDELINES

Projects should consist of research involving interdisciplinary science broadly defined and should be led by tenure-stream or tenured faculty from any Division at Colgate University. The period of support will normally be two years, although more exploratory projects covering a single year or less are also encouraged and can be renewed for a second year with a second proposal. Institute funds are not intended to provide long-term support. All activities and progress on the project will be reported to the director at the end of the project. Upon concluding the grant period, faculty members are expected to present their findings at a divisional colloquium or a comparable campus event.

CRITERIA: *Two criteria are the primary considerations for support from the Institute:*

A. The proposed project must be scientifically sound. It should result in significant contributions to scientific knowledge (e.g., peer-reviewed publications) or have the potential for transformative or groundbreaking scientific results. The term science is interpreted broadly, yet rigorously, as methods that increase knowledge through evidence-based inquiry, including experimental, mathematical, and/or simulation evidence.

B. The proposed project must involve a scientific question/problem that requires an interdisciplinary approach. It is recognized that the term "*interdisciplinary*" is not easily

defined. The spirit of this criterion is that a proposed project should investigate a topic that an individual investigator could not satisfactorily study alone; the proposed project should foster collaboration between investigators with complementary expertise to take advantage of a synthesis of training by opening a new area of study or tackling existing problems in creative new ways. Collaborative relationships may be intra- or inter-institutional. Collaborators may be from the same academic department or program; however, distinctions between the expertise each brings to bear on the proposed project and the potential advantages of synthesizing these perspectives must be clear.

Additional Characteristics Used for Prioritizing Projects Include:

- ❖ The proposed project should have reasonable potential for sustained activity beyond the period of Institute support (i.e., the ability to attract extramural funding).
- ❖ The proposed project should involve students to the extent appropriate in order to enhance interdisciplinary learning and raise student awareness of Colgate's science programs.
- ❖ Satisfactory progress on the proposed project would not be possible through internal funding sources (e.g., departmental funds, Research Council funds).

SUPPORTED FUNDING CATEGORIES

- ❖ Travel for participants to come to Colgate and for faculty and students to travel as part of the project and to disseminate the project results.
- ❖ Release time for Colgate faculty (budgeted as $20,000 per course; maximum one course per participant per year). The justification for course release time should be consistent with the mission and objectives of the Picker ISI.
- ❖ Supplies and general operating costs.
- ❖ Wages and fringe benefits for staff. Staff are paid as Colgate employees. They are typically on campus but, in special circumstances, can be at a remote location.
- ❖ Undergraduate wages and salaries that cannot be funded by other Colgate sources.
- ❖ Consultant fees.
- ❖ Fees for access to equipment or data.
- ❖ Equipment that is clearly required for proposed projects will be considered and should be discussed with the director. Large equipment expenses may be better provided through external funding (e.g., NSF, Research Corp., etc.).
- ❖ Please contact the director if you have questions about additional funding categories not listed here.

PRE-PROPOSALS: *Due by Monday, November 27, 2023*

- ❖ Faculty members planning to submit a proposal to the Institute for support of a research project must provide a *pre-proposal:*
- ❖ Briefly (2-page single-spaced limit) describe the goal(s) of the research project and the roles of faculty and other personnel involved in the project.
- ❖ In addition, please include a separate single-page description of the anticipated budget needs. Indicate whether any funding for the project is being sought from other sources.
- ❖ Please provide a 2-page CV for each collaborator on the project. The CV should be formatted in the NSF or NIH style or something similar. For reference, you can visit:

https://www.ncbi.nlm.nih.gov/myncbi/

Note: If a course release is requested, the Picker ISI director will inform your department chair (or program director) and division director about the leave request.

The Executive Advisory Committee of the Institute reviews the pre-proposals.

Please send pre-proposals as PDF files by email to Char Howard at choward@colgate.edu

FULL PROPOSALS: *Deadline January 26, 2024*

Full proposals will be solicited based on the Executive Advisory Committee's deliberations. The pre-proposals will guide conversations about the project between those preparing full proposals and the director of the Institute. Full proposals should include the following:

1. Cover page listing project title, principal investigators, and affiliations.

2. One-page project summary.

3. Project narrative (limit: 8 pages single-spaced, 12-point font, references can be separate) Please bear in mind the variety of backgrounds of the committee members (listed below). While ideas and methods that frame the proposal must be rigorous and academically sound, the narrative should be clear and understandable to faculty across scientific disciplines.

4. Budget for each year, broken down by category. See the guidelines provided by the Office of Corporation, Foundation and Government Support for budgets and travel: https://www.colgate.edu/offices-and-services/grantsinformation/budgetguidelines

5. Budget explanation, including an itemized explanation for each category in the budget and a discussion of the expected timing for any course release.

6. A 2-page CV (NIH style or similar) of PI(s) and other personnel.

7. Supporting letters or other documents as appendices not to exceed ten pages.

In some rare cases, the committee may call on external reviewers to provide independent critical reviews of the proposal. The director may request a list of people who should not be reviewers (due to a conflict of interest) or who would be good reviewers.

The Executive Advisory Committee's recommendations for funding are subject to final approval by the Dean of Faculty/Provost and President.

Full proposals are due on January 26, 2024. Awards will be made in March.

Please send full proposals as PDF files by email to Char Howard at choward@colgate.edu

Picker Interdisciplinary Science Institute
Executive Advisory Committee
2023-2024

Ahmet Ay (Director; Biology and Mathematics)
Tim McCay (Biology)
Jacob Goldberg (Chemistry)
Aaron Gember-Jacobson (Computer Science)
Michael Loranty (Geography)
Karen Harpp (Geology)
Joe P. Chen (Mathematics)
Jeff Bary (Physics & Astronomy)
Yukari Hirata (Division of Arts and Humanities)
Janel Benson (Division of Social Sciences)
Rebecca Upton (Division of University Studies)
Christian Ducomb (Associate Dean of Faculty; ex-officio)
Laura Festine (Director of University Grants and Sponsored Research; ex-officio)