

BIOSCIENCES INITIATIVE FUNDING OPPORTUNITIES

2018 Request For Applications

Purpose of the Biosciences Initiative: *to make U-M a global leader in high-impact biosciences research, from fundamental discovery through practical application, for the benefit of society.*

Overview: The Biosciences Initiative requests proposals for forward-looking, high impact scientific research endeavors within the biosciences. Proposals may seek to leverage existing areas of research excellence, and/or advance critical new emerging areas of science. Proposals should take advantage of the breadth of bioscience and convergent disciplines at U-M, and thus may be transdisciplinary in nature, may include convergent disciplines, and should be organized around the principle of creating globally-leading research programs, focused on solving critical problems in the biosciences. Proposals will be considered in three categories: Scientific Research Initiatives, which are large scale efforts designed to advance major new directions in interdisciplinary discovery; Scientific Synergy Initiatives which are designed to build on Michigan's strengths and take existing efforts to higher levels of impact; and Exploratory Funding which is focused on early stage experimental activities. Proposals should be structured according to the three categories below, and applications in each category will be considered annually, for four cycles (FY19 – FY22).

Funding Categories:

(1) Scientific Research Initiatives: Scientific Research Initiatives may request funds for up to five faculty positions, including one full professor position. Additional expenses may include administrative costs, and other research resources needed for the success of the program, such as equipment, cores, and unique reagents or biorepositories. Ongoing base faculty salary and benefit expenses will be provided by the Office of the Provost. Development of Scientific Research Initiatives should be led by Department Chairs and Institute Directors, working with their faculty to identify areas of interest, with three or more departments/institutes typically required. Scientific Research Initiatives will require approval of relevant deans as part of the submission process, and MOUs describing the management of promotion and tenure for faculty recruited, signed by the deans and chairs participating in an initiative, will be required prior to the initiation of funding. These initiatives may be further accelerated by coordination with existing departmental recruitments, to which BICC

may also contribute a portion of startup costs. One Scientific Research Initiative may be funded in each of the four annual cycles.

(2) Science Synergy Initiatives: Science Synergy Initiatives may request funds for two to three faculty positions, including one full professor position. With a senior faculty lead, these initiatives should seek to bring together faculty in multiple departments or schools to move emerging scientific programs towards prominence. Scientific Synergy Initiatives will require approval of relevant chairs and deans after the letter of intent stage for applications advanced to full submission process. MOUs describing the management of promotion and tenure for faculty recruited, signed by the deans and chairs participating in an initiative, will be required prior to the initiation of funding. These initiatives may be further accelerated by coordination with existing departmental recruitments, to which BICC may also contribute a portion of startup costs, however this is not an essential component. Additional expenses may include administrative costs, and other research resources needed for the success of the program, such as equipment, cores, and unique reagents or biorepositories. These initiatives should be focused around the principle that addition of key expertise or leadership to the U-M faculty, and/or addition of equipment, cores, or unique reagents or biorepositories would synergize with existing resources and expertise at Michigan to achieve the same goals as a Science Research Initiative: creation of a globally-leading research program, focused on solving critical problems in the biosciences. One Science Synergy Initiative may be funded in each of the four annual cycles.

(3) Exploratory Funding: Proposals for exploratory funding should focus on early stage activities, leading to potential research or synergy initiatives. Examples include, but are not limited to, workshops to explore new scientific fields of research, sabbatical funding to bring faculty with unique expertise to U-M, funds for the development of unique resources for research, or funds to develop partnerships between U-M and other organizations, with the goal of creating globally leading research programs at U-M. Funds for faculty salaries or individual laboratory research expenses are not allowed. The Biosciences Initiative will seek to fund multiple Exploratory Funding requests in each annual cycle.

Submission and Review Process:

Key Dates

Letter of Intent Due Date (not required for Exploratory Funding): April 30, 2018

Invitations for Full Proposals: June 1, 2018

Due Dates for Proposals: August 31, 2018

Notice of Award: October 19, 2018

Eligibility

Principal Investigators must hold faculty appointments at the University of Michigan Ann Arbor campus. All U-M Ann Arbor faculty are eligible to participate.

Submission

Form pages for all needed documentation for submission of both the LOI and full submission will be made available on the Biosciences website by March 1st, 2018.

(1) Required Elements for Scientific Research Initiatives and Science Synergy Initiatives

Letter of Intent (due April 30)

Please include the 2 page Executive Summary (below), a page with key personnel members and their signatures, and NIH or NSF style biosketches for each member of the key personnel. Scientific Research Initiatives should also include a completed form page including signatures of relevant department chairs and deans to insure space and other needed resources have been committed to the initiative; this signature page is not required for Science Synergy Initiatives until submission of the full proposal.

Full Proposals (upon invitation, due August 31st)

Executive Summary (2 pages)

Clearly state the problem the proposal seeks to address, the strategies for addressing the problem, the resources required, and a compelling argument as to why this initiative can make Michigan a global leader in the field. For Scientific Research Initiatives, also describe how ongoing departmental recruiting will align with the initiative.

Narrative (12 pages)

Vision, Innovation, and Significance

How will this research initiative address a major unsolved problem in the biosciences? What strategies are involved, and what makes them innovative? How does the proposal take advantage of the breadth of disciplines at U-M?

Recruiting Plan

Initiatives must propose detailed recruiting plans outside the traditional departmental structures; final approval for each new faculty recruit must also include the Dean supporting each faculty appointment as well as the Biosciences Initiative Coordinating Committee. What will allow this initiative to recruit and develop leading scientists in the field? What scientists are required to achieve the scientific vision? For Scientific

Research Initiatives, how will the initiative be accelerated by coordination with existing departmental recruitment plans?

Faculty recruitment proposals must also include a DE&I plan following U-M best practices for Diversity Equity and Inclusion in order to achieve U-M's DE&I Goals.

Benchmarking

What other programs exist in this field? How is Michigan currently ranked in the field, and what is the basis for the ranking? How will this initiative propel Michigan to a pre-eminent position in the field? What will provide our ongoing advantage?

Key Personnel, Administration and Governance

Describe the key leadership and personnel constituting the initiative. How will recruitments be used to increase leadership within the field? How will the initiative be governed and administered? (While the initiative is expected to have a multidepartmental/multiunit governance group, faculty members hired under the initiative will be expected to meet the normal requirements of their home schools/departments, including teaching and service, and undergo promotion and tenure reviews through their home schools/departments.)

Scientific Research Initiatives requirements: To be led by Department Chairs and Institute Directors. Initiatives will engage three or more departments or institutes.

Science Synergy Initiatives requirements: Initiatives will be led by one or more senior faculty members and should seek to bring together faculty in multiple departments or schools.

Resource Requirements and Budget

Describe the resource requirements in detail, and provide a first year budget, and annual budgets for the length of the initiative, but not to exceed five years. Budget amounts should be based around the resources typically involved in the number of faculty requested. Salary and benefits estimated for each recruit should be provided, but should not be included in the budget total; base salary and benefits will be supported through the office of the Provost, anticipated merit and step raises are the responsibility of the recruit's home unit(s). Should faculty hired under an initiative vacate their position for any reason, the base salary funding line reverts to the office of the Provost for reallocation.

Timeline and Milestones

Continued annual funding of each project will be milestone based. Describe milestones that you will seek to achieve for each year of your initiative.

Describe the overall goals for the initiative, including projected 5 year and 10 year milestones.

Sustainability Plan

Describe a plan to sustain the research and administrative costs of the initiative following the completion of Biosciences Initiative funding.

Review Criteria for Scientific Research Initiatives and Science Synergy Initiatives

Proposals will be reviewed by the Biosciences Initiative Coordinating Committee and by external content experts. The following criteria will be considered:

- The significance of the research problem
- The novelty of the approach
- The application of transdisciplinary and convergent approaches to the problem, utilizing the breadth of expertise at U-M
- The recruiting plan
- The leadership plan
- The overall goals for the initiative, including projected 5 year and 10 year milestones
- The support of the schools for the initiative, including commitments of research space (Scientific Research Initiatives and Science Synergy Initiatives) and future departmental recruitments (Scientific Research Initiatives) to leverage against the Biosciences Initiative investments

(2) Required Elements for Requests for Exploratory Funds

Letter of Intent – not required

Executive Summary (1 page)

Clearly state the problem the proposal seeks to address, the strategies for addressing the problem, the resources required, and a compelling argument as to why this initiative can help develop new research directions at U-M. Proposals that could be funded through existing NIH, NSF, DoE, NOAA or other federal granting agencies will not typically be considered.

Narrative (up to 3 pages)

Vision, Innovation, and Significance

How will this funding help explore opportunities to address a major unsolved problem in the biosciences? What strategies are involved, and what makes them innovative? How does the proposal take advantage of the breadth of disciplines at U-M?

Benchmarking

What other programs exist in this field? How is Michigan currently ranked in the field, and what is the basis for the ranking?

Key Personnel, Administration and Governance

Describe the key leadership involved in management of the exploratory program. How will the program be governed and administered?

Resource Requirements and Budget

Exploratory Funding applications may request one year budgets of up to \$100,000. Describe the resource requirements in detail, and provide a one year budget. Competitive renewals will be considered on a case by case basis.

Outcomes

Describe the outcomes that you will seek to achieve through the program, and how these may ultimately lead to new research programs, or expand the direction(s) of existing programs.

Review Criteria

Proposals will reviewed by the Biosciences Initiative Coordinating Committee. The following criteria will be considered:

- The significance of the research problem
- The novelty of the approach
- The leadership of the program
- The support of the schools for the initiative, including commitments of research space and funding, as needed
- The likelihood of creating opportunities to develop globally leading research programs