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 should be focused on major unsolved problems in the biosciences. Programs focused on incremental advances in existing areas of strength, or capacity building that lack a strong focus on solving a particular challenge in the biosciences will not be considered. Proposals should take advantage of the breadth of the biosciences U-M, and the inclusion of convergent sciences will be considered a strength. Proposals will thus be transdisciplinary in nature, 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 two categories: 1) Scientific Research Initiatives, which are efforts designed to advance major new directions in transdisciplinary discovery; and 2) Exploratory Funding, which is focused on early stage experimental activities. Proposals should be structured according to these two categories, and applications in each category will be considered annually, for up to two additional cycles (FY21 and FY22).

Funding Categories:

Scientific Research Initiatives: Scientific Research Initiatives may request funds for up to three 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. Typically, pilot grant funds and student/fellow scholarships are not permitted, unless no overlap with existing university programs can be demonstrated. 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 faculty with appropriate expertise, in coordination with Department Chairs and Institute Directors, with three or more departments/institutes required. Scientific Research Initiatives will require approval of relevant deans and chairs 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.
**Exploratory Funding:** Proposals for exploratory funding should focus on early stage activities, potentially leading to scientific research 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 that will be accessed by multiple investigators, 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**
- April 30, 2019: Letter of Intent Due Date (not required for Exploratory Funding)
- May 31, 2019: Invitations for Full Proposals
- Aug. 30, 2019: Due Dates for Proposals
- Dec. 1, 2019: Notice of Award

**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 submission of all types of proposals will be made available on the Biosciences Initiative website by Feb. 1, 2019.

**Required Elements for Scientific Research Initiatives**

**Letter of Intent (due April 30, 2019)**

Please include the two page Executive Summary (described below), a page with key personnel members and their signatures, and NIH or NSF style biosketches for each member of the key personnel. Letters of intent 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.
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. Please 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 (BICC). What will allow this initiative to recruit and develop leading scientists in the field? What scientists are required to achieve the scientific vision? 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. Initiatives must engage three or more departments or institutes.)
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 five-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
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 team and governance plan
- The overall goals for the initiative, including projected five-year and 10-year milestones
- The support of the schools for the initiative, including commitments of research space (Scientific Research Initiatives) and future departmental recruitments (Scientific Research Initiatives) to leverage against the Biosciences Initiative investments
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 U-M 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 be reviewed by the BICC. The following criteria will be considered:
  o The significance of the research problem
  o The novelty of the approach
  o The leadership of the program
  o The support of the schools for the initiative, including commitments of research space and funding, as needed
  o The likelihood of creating opportunities to develop globally leading research programs