



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 23-059

Frequently Asked Questions (FAQs) for Emerging Mathematical Biology (eMB) Solicitation (NSF 23-537)

1. Is the eMB solicitation focused on biology only? Is mathematical modeling in biomedical diseases appropriate to eMB?
2. What supporting data would be expected in eMB proposals?
3. Can one submit a proposal to eMB in addition to the regular Math Bio Program (PD 22-7334) with a different proposal?
4. Do I have to include experimentalists in my proposal?
5. Is the inclusion of Artificial Intelligence/Machine Learning (AI/ML) viewed as a necessary component of successful proposals? Will other areas of mathematics take a backseat to AI/ML?
6. Can a single PI submit to this funding opportunity?
7. Is there a limit for the budget in a project?
8. Does eMB support biological experiments for validating mathematical models? If yes, what is the budget range for the experiments?
9. Can industry labs participate? Can an industry lab apply without a university partner?

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1. **Is the eMB solicitation focused on biology only? Is mathematical modeling in biomedical diseases appropriate to eMB?**

Successful eMB projects are expected to address clearly stated biological questions. All biological questions that are of interest to the NSF programs in the Directorate for Biological Sciences (BIO) are suitable to eMB.

2. **What supporting data would be expected in eMB proposals?**

Data is not required in eMB proposals. However, competitive proposals are anticipated to include compelling illustrations of new mathematics or modeling/computational approaches applicable for advancing biological understanding.

3. Can one submit a proposal to eMB in addition to the regular Math Bio Program (PD 22-7334) with a different proposal?

Yes. There are no restrictions or limits on proposal submission. However, each proposal must be significantly different from other proposals including those pending at NSF for review. A proposal that is a duplicate of, or substantially similar to a pending proposal at NSF will be returned without review.

4. Do I have to include experimentalists in my proposal?

They are not required, but a strong link between mathematical results and biological applications is expected to be a key feature of successful eMB projects.

5. Is the inclusion of Artificial Intelligence/Machine Learning (AI/ML) viewed as a necessary component of successful proposals? Will other areas of mathematics take a backseat to AI/ML?

No and No. All mathematical/computational/statistical methodologies are appropriate as long as they are focused on the development of new theories, tools, or modeling approaches for biological processes that will advance our understanding of complex biological phenomena.

6. Can a single PI submit to this funding opportunity?

Yes. While not required, collaborations between mathematicians and biologists are anticipated for successful eMB projects. In the case of a single PI, it should be made clear that the PI has necessary expertise in both mathematics and biology for a successful completion of the proposed research.

7. Is there a limit for the budget in a project?

No cap was set on the budget for any project. Approximately 10 to 15 awards may be made from this competition per year with an anticipated funding amount up to \$6,000,000, subject to availability of funds and receipt of meritorious proposals.

8. Does eMB support biological experiments for validating mathematical models? If yes, what is the budget range for the experiments?

Inclusion of biological experiments in eMB proposals is acceptable. See [#7](#) regarding an answer on the budget range.

9. Can industry labs participate? Can an industry lab apply without a university partner?

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in Chapter I.E of the NSF Proposal & Award Policies & Procedures Guide ([PAPPG](#)). Unaffiliated individuals are not eligible to submit proposals in response to this solicitation.