



The U.S. National Science Foundation (NSF) has several funding opportunities, including solicitations and Dear Colleague Letters, of interest to members of the Society for Integrative and Comparative Biology (SICB). Below is a non-exhaustive list of opportunities, for a full listing of open calls visit <https://new.nsf.gov/funding/opportunities>.

Division of Integrative Organismal Systems (IOS) Core Programs

IOS supports fundamental research aimed at understanding organisms as units of biological organization, encouraging the use of integrative, interdisciplinary approaches to solving complex problems in organismal biology.

Behavioral Systems

Supports integrative research on the behavior of individuals and groups of animals. Supports species-specific and comparative studies, as well as modeling and theoretical approaches.



Developmental Systems

Supports research on how the properties of organisms emerge from the interactions of developmental processes. Focus areas include plant, fungal and microbial development; animal development; and the evolution of developmental mechanisms.



Neural Systems

Supports mechanistic studies in neuroscience, from structure to function in natural context, that span multiple levels of analysis, from molecular and cellular to complex behavioral aspects of organisms.



Physiological and Structural Systems

Supports research on whole-organism physiology and functional morphology, including mechanisms underlying interactions among viruses, prokaryotes and eukaryotes; organismal structural features; and organismal responses to abiotic/biotic environments.



Plant Genome Research Program

Supports genome-scale plant research and the development of tools and resources that advance functional plant genomics — addressing challenges of biological, societal and economic importance.



Integrative Research in Biology (IntBIO) Track

Supports integrative biological research that spans subdisciplines and incorporates cutting-edge methods, tools, and concepts from each to produce groundbreaking biological discovery that is synergistic, such that the sum is greater than the parts.





Additional Funding Opportunities for the Division of Integrative Organismal Systems (IOS) Community

Synthesis Center for Understanding Organismal Resilience

Supports the establishment of a new Synthesis Center focused on organismal resilience and plasticity as well as training new generations of researchers in data-intensive, open, cross-disciplinary and collaborative science.



Enabling Discovery through GENomics (EDGE)

Supports the development of genomic tools and research to uncover the relationships between genes and phenotypes across environmental, developmental, social and genomic contexts.



Organismal Response to Climate Change (ORCC)

Supports research, research coordination networks and conferences that integrate ecological and evolutionary approaches with genomic, physiological, structural, developmental, neural or behavioral understanding of organismal responses to climate change.



Biodiversity on a Changing Planet (BoCP)

Supports design and implementation projects studying functional biodiversity in the context of unprecedented environmental change. Projects must integrate cellular, organismal, ecological, evolutionary, geological or paleontological approaches.



Building Synthetic Microbial Communities for Biology, Mitigating Climate Change, Sustainability and Biotechnology (Synthetic Communities)

Supports research into synthetic microbial communities, including how they form and evolve, how to use them to address biological questions, and/or how to build them for biotechnology or bioengineering applications.



Ecology and Evolution of Infectious Diseases (EEID)

Supports research on the ecological, evolutionary, organismal and social drivers that influence infectious diseases and increase quantitative and/or computational understanding of pathogen transmission dynamics.





Division of Integrative Organismal Systems (IOS) Dear Colleague Letters

Organismal Systems and Infection Biology (OSIB)

Supports research proposals focusing on infection processes in natural systems. All study systems are appropriate except for those that focus solely on human diseases. Comparative approaches to the study of the immune system are encouraged.



Bioinspired Design Collaborations to Accelerate the Discovery-Translation Process (BioDesign)

Aims to facilitate the translation of knowledge generated through research in the biological and engineering sciences to solutions and prototypes needed for societal and economic impacts.



Plant Synthetic Biology

Highlights existing programs offering support to advance the growing field of plant synthetic biology, including support for basic research, tool development, and applications, and outcomes with benefits to society.



Advancing Plant Transformation

Invites proposals focused on plant genetic transformation to existing programs at NSF and USDA. Proposals can involve basic research, long-term studies, tool development, or emphasize potential outcomes with societal benefit.



Network Building Opportunities

Research Coordination Networks (RCN)

Supports networks that foster communication and new collaborations among scientists, engineers, and educators who share a common interest in a new or developing area of science or engineering.



Biology Integration Institutes (BII)

Supports diverse, collaborative teams that perform research, education and training on critical questions that span multiple disciplines within and beyond biology.



Leading Culture Change through Professional Societies of Biology (BIO-LEAPS)

Supports the design, implementation and evaluation of projects that leverage the work of professional societies to advance diversity, equity, and inclusion in the biological sciences.





Other Types of Proposals

In addition to standard research proposals, there are other types of proposals that may be submitted to NSF. Each of them is described below, and you can read more about them in NSF's Proposal & Award Policies and Procedures Guide (PAPPG) at <https://new.nsf.gov/policies/pappg>.

Grants for Rapid Response Research (RAPID)

Supports research having a severe urgency with regard to availability of, or access to, data, facilities, or specialized equipment, including quick-response research on natural or anthropogenic disasters and similar unanticipated events.

Early-Concept Grants for Exploratory Research (EAGER)

Supports exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.

Research Advanced by Interdisciplinary Science and Engineering (RAISE)

Supports bold, interdisciplinary projects whose scientific advances lie in great part outside the scope of a single program or discipline, such that substantial funding support from more than one program or discipline is necessary.

Grant Opportunities for Academic Liaison with Industry (GOALI)

Seeks to stimulate collaboration between institutions of higher education and industry.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED)

Aims to reduce or remove barriers to participation in research and training by persons with physical disabilities by providing special equipment and assistance.

Career Life Balance Supplements (CLB)

Supplemental funding to support additional personnel (e.g., research technicians or equivalent) to sustain research when the PI is on family leave.

Broadening Participation in STEM Opportunities

Below are a few examples of NSF funding opportunities aimed at broadening participation in STEM. Many more opportunities can be searched using the QR code to the right.

- Historically Black Colleges and Universities - Excellence in Research (HBCU-EiR)
- Improving Undergraduate STEM Education: Hispanic-Serving Institutions (HSI Program)
- Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUDES)
- Organizational Change for Gender Equity in STEM Academic Professions (ADVANCE)
- Growing Research Access for Nationally Transformative Equity and Diversity (GRANTED)



Find broadening
participation
funding



Learn More About NSF's Division of Integrative Organismal Systems (IOS)

Visit Our IOS Websites for More Program and Contact Information



Homepage



Programs



Events



Supplement
Guidance



Blog

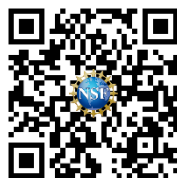
Learn More About NSF's Directorate for Biological
Sciences (BIO) and Its Other Divisions



NSF Funding
Search



NSF Proposal &
Award Policies
and Procedures
Guide (PAPPG)



Become a
Reviewer



Discover and Post
Opportunities on NSF's
Education and Training
Application (ETAP)



Share Your
Research and
Broader
Impacts



Work for NSF!

Rotating Program Director Positions

Learn More



Express Interest



Administrative
Staff Positions



Pathways and Other
Programs for Students
& Recent Graduates



Open NSF
Positions



NSF Funding Opportunities of Interest

Society for Integrative and Comparative Biology (SICB)



U.S. National
Science Foundation

NSF Support Across Your Career

To ensure a diverse STEM workforce in academia and beyond, NSF supports **students** and **educators** at career transition points across diverse institution types. Learn more about these programs by using the QR codes below.

Pre-K to 12	Research Assistantships for High School Students (RAHSS)	Research Experiences for Teachers Sites in the Biological Sciences (BIO-RETS)	
Undergrad	Research Experiences for Undergraduates Sites (REU Sites) and Supplemental Awards	Research Coordination Networks in Undergraduate Biology Education (RCN-UBE)	Research in Undergraduate Institutions (RUI) and Research Opportunity Awards (ROA)
Postbacc	Research and Mentoring for Postbaccalaureates (RaMP) in Biological Sciences		
Grad	Graduate Research Fellowship Program (GRFP)		
Postdoc	Postdoctoral Research Fellowships in Biology (PRFB)		
Early Career Faculty	Building Research Capacity of New Faculty in Biology (BRC-BIO)	Faculty Early Career Development Program (CAREER)	
Mid-Career Faculty	Mid-Career Advancement (MCA) Program	Transitions to Excellence in Molecular and Cellular Biosciences Research (Transitions)	



RAHSS



BIO-RETS



REU



RCN-UBE



RUI/ROA



RaMP



GRFP



INTERN



NRT



PRFB



BRC-BIO



CAREER



MCA



Transitions



MCI



Advancing Administration, Agency, and Directorate Priorities

In NSF's FY 2024 Budget Request, the agency lists several themes for investments, including Advance Emerging Industries (including Biotechnology) for National and Economic Security, Build a Resilient Planet, and Create Opportunities Everywhere. In addition, the Directorate for Biological Sciences (BIO) continues to focus on Integration Across the Biological Sciences.

These themes align with the Administration's priorities, bring to life new efforts and connect existing efforts throughout the research portfolio, and point to opportunities envisioned in the CHIPS and Science Act. Below are some programs that support these themes; for a full list of opportunities, explore NSF's focus areas (<https://new.nsf.gov/focus-areas>) or use the NSF Funding Search (<https://new.nsf.gov/funding/opportunities>).

Advancing the Bioeconomy

Biofoundries to Enable Access to Infrastructure and Resources for Advancing Modern Biology and Biotechnology (Biofoundries)

Infrastructure program that is designed to accelerate advances in the biological sciences, chemical biology, biotechnology, and bioengineering via access to modern infrastructure, technology, and capacity.



Catalyzing Across Sectors to Advance the Bioeconomy (CASA-Bio)

Organization and community engagement activities aimed at creating a unified approach to advancing the U.S. bioeconomy across government, private sector, and research communities.



Global Centers

Cross-directorate funding opportunity in partnership with international funding agencies that supports large-scale use-inspired research in collaboration with international partners to address global challenges that cannot be solved by any single country. The Fiscal Year 2024 anticipated topic is Addressing Societal Challenges through the Bioeconomy.



Building a Resilient Planet

Organismal Response to Climate Change (ORCC)

Supports research, research coordination networks and conferences that integrate ecological and evolutionary approaches with genomic, physiological, structural, developmental, neural or behavioral understanding of organismal responses to climate change.



Biodiversity on a Changing Planet (BoCP)

Supports design and implementation projects studying functional biodiversity in the context of unprecedented environmental change. Projects must integrate cellular, organismal, ecological, evolutionary, geological or paleontological approaches.





Building Synthetic Microbial Communities for Biology, Mitigating Climate Change, Sustainability and Biotechnology (Synthetic Communities)

Supports research into synthetic microbial communities, including how they form and evolve, how to use them to address biological questions, and/or how to build them for biotechnology or bioengineering applications.



Ecology and Evolution of Infectious Diseases (EEID)

Supports research on the ecological, evolutionary, organismal and social drivers that influence infectious diseases and increase quantitative and/or computational understanding of pathogen transmission dynamics.



Dear Colleague Letter: Organismal Systems and Infection Biology (OSIB)

Supports research proposals focusing on infection processes in natural systems. All study systems are appropriate except for those that focus solely on human diseases. Comparative approaches to the study of the immune system are encouraged.



Dear Colleague Letter: UKRI/BBSRC - NSF/BIO Lead Agency Opportunity

Outlines topical areas in which NSF and the UKRI Biotechnology and Biological Sciences Research Council seek to reduce barriers to transatlantic research: Biological Informatics, Systems Understanding of Host-Microbe Interactions, Synthetic Cells and Cellular Systems, and Synthetic Microbial Communities.



Creating Opportunities Everywhere

NSF Broadening Participation Programs

While broadening participation in STEM is included in NSF's merit review criteria, some programs go beyond the standard review criteria. These investments use different approaches to build STEM education and research capacity, catalyze new areas of STEM research, and develop strategic partnerships and alliances.



Integration Across the Biological Sciences

Integrative Research in Biology (IntBIO) Track

Supports integrative biological research that spans subdisciplines and incorporates cutting-edge methods, tools, and concepts from each to produce groundbreaking biological discovery that is synergistic, such that the sum is greater than the parts.



Biology Integration Institutes (BII)

Supports diverse, collaborative teams that perform research, education and training on critical questions that span multiple disciplines within and beyond biology.

