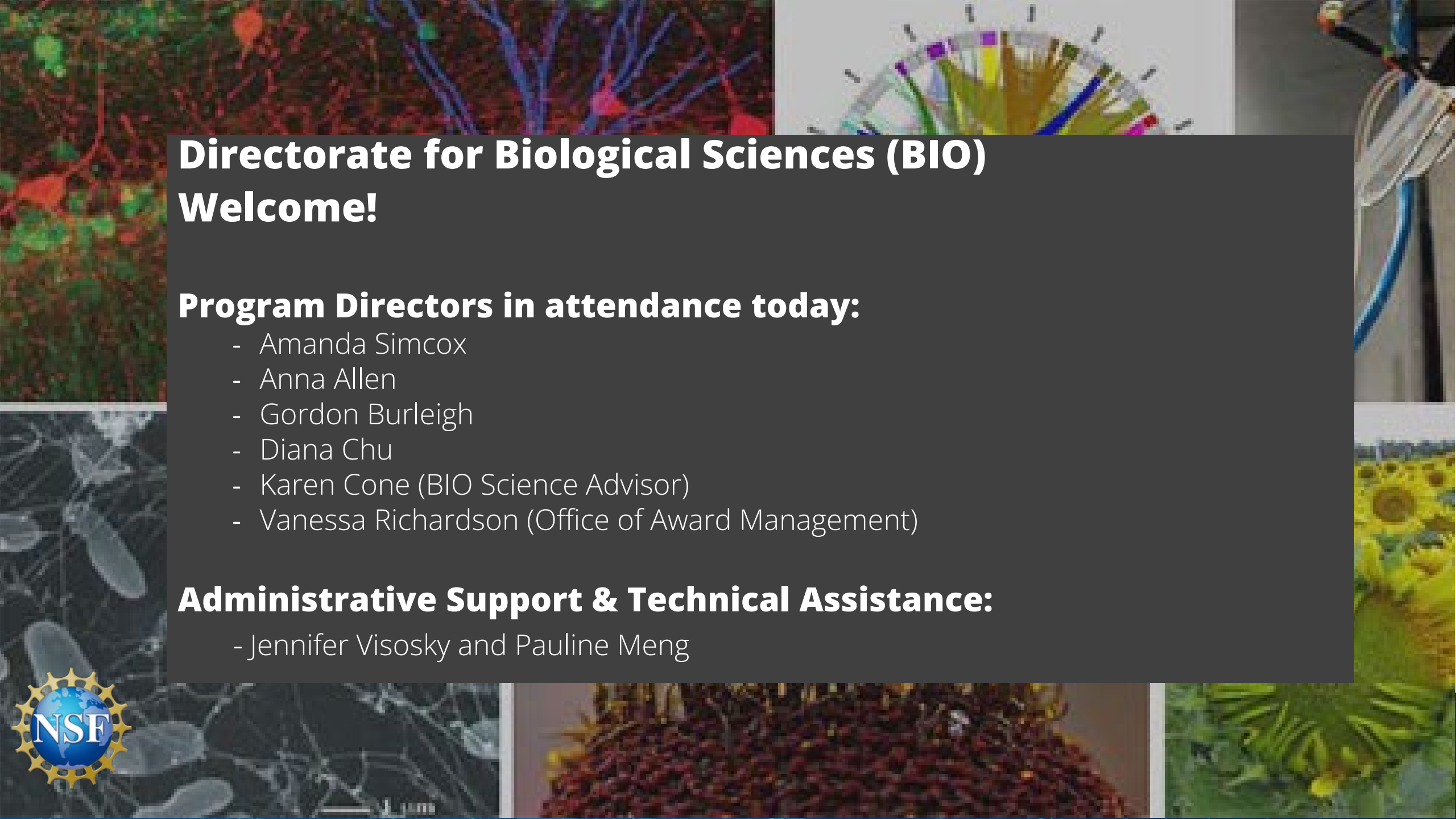




Directorate for Biological Sciences Virtual Office Hour

Welcome! We will begin the Virtual Office Hour soon.
Please submit questions in the Zoom Q&A box.



Directorate for Biological Sciences (BIO)

Welcome!

Program Directors in attendance today:

- Amanda Simcox
- Anna Allen
- Gordon Burleigh
- Diana Chu
- Karen Cone (BIO Science Advisor)
- Vanessa Richardson (Office of Award Management)

Administrative Support & Technical Assistance:

- Jennifer Viosky and Pauline Meng



BIO Virtual Office Hour

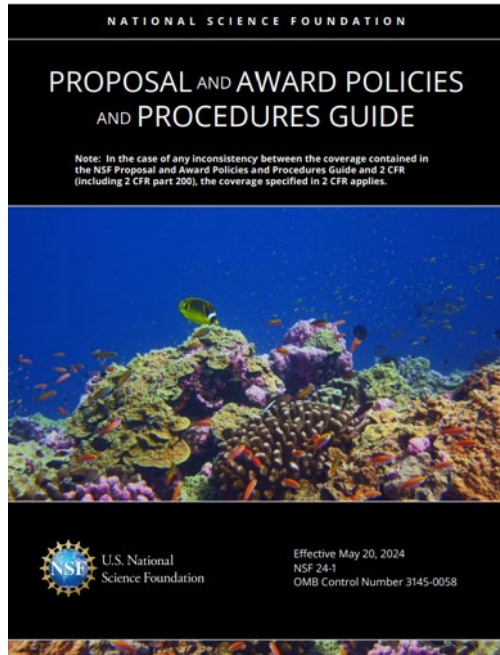
Today's Topics

- Reminders
- Topic of the Day: Recent Funding Opportunities
- Q&A with Program Directors



Reminders: General

Proposal & Award Policies & Procedures Guide (PAPPG)



- Current version is NSF 24-1
- Latest version can always be found at: <https://www.nsf.gov/policies/pappg>
- Check for recent mini-updates (supplements NSF 26-200 and NSF 26-202)

Implementation of Executive Orders

- Updates on NSF Priorities can be found at <https://www.nsf.gov/updates-on-priorities>
- Updates on NSF's Implementation of Executive Orders can be found at <https://www.nsf.gov/executive-orders>



BIO has reorganized

Then

- Four divisions
- **Core research** supported via division-associated funding opportunities
- 20+ programs, each covering a focused research topic

Now

- Three thematic areas
- **Core research** support via **one** funding opportunity ([NSF 26-517](#))
- Other support via specialized BIO and cross-agency funding opportunities





Directorate for Biological Sciences (BIO)

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Directorate for Biological Sciences (BIO)

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[Core Biological Sciences Research](#)

[Workforce Development](#)

[Initiatives and Infrastructure](#)

[Centers, Institutes, and Facilities](#) +

[About](#) +

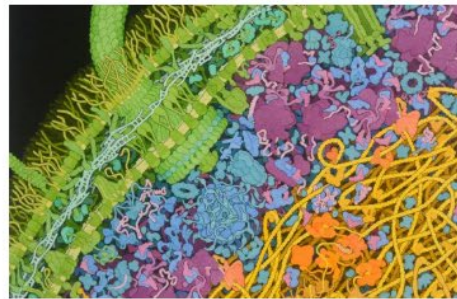
[Resources](#) +

[News and Events](#) +

[Career Opportunities](#) +

The www.nsf.gov/bio website has been updated!

Key research themes



Foundations of life

Understanding natural or synthetic molecules, cells, and physiology that build living things.

[Read more about the Foundations of Life program.](#)



Living systems

Understanding how species evolve, interact and shape Earth's biodiverse ecosystems.

[Read more about the Living Systems program.](#)



Bioinnovation and infrastructure

Investigating the functional genomic complexity of life and developing the tools, data and technologies to drive biological discovery.

[Read more about the Bioinnovation and Infrastructure program.](#)

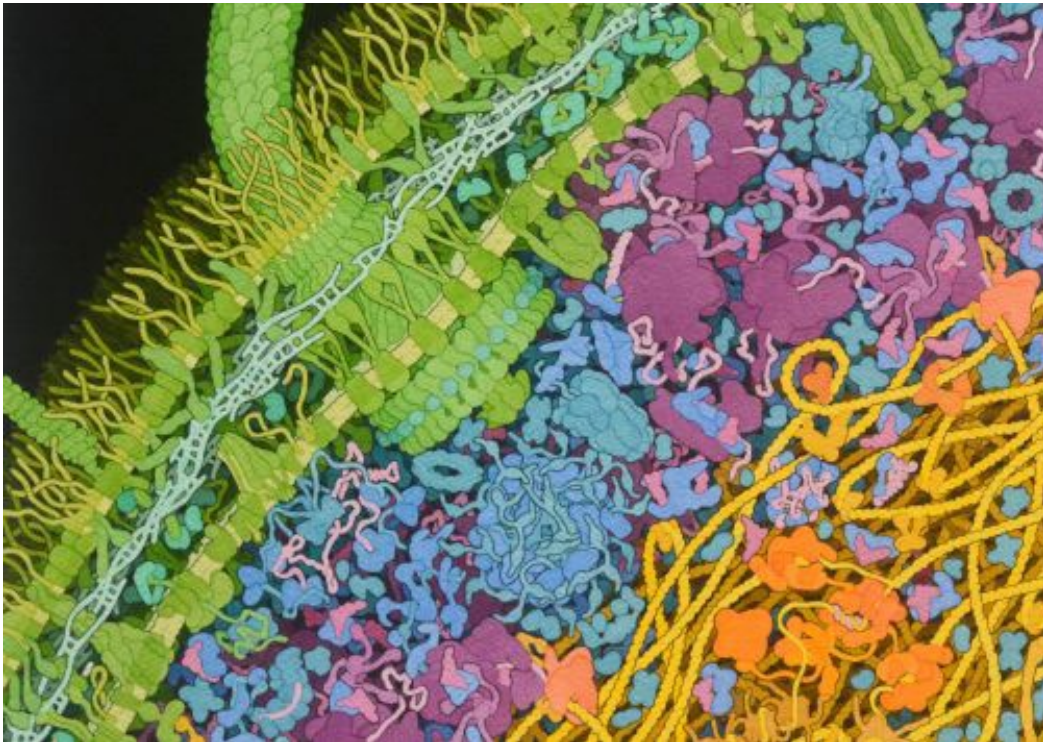
[Read the BIO Core funding opportunity](#)



Foundations of Life

Sections: Molecular Biosciences; Cell, Development & Physiology

Supports fundamental research to understand the natural and synthetic molecules, cells, and physiology that build living things



Topics may include:

- Principles governing biomolecular interactions, including quantum phenomena
- Biomolecular and supramolecular structure, assembly and dynamics
- Cell structure and dynamics
- Biomechanical principles of organismal function
- Integrated physiological processes
- Neuroscience scaling from cellular to behavioral levels
- Developmental mechanisms
- Epigenetics and mechanisms of gene expression



Contact info: bio-FL@nsf.gov

Living Systems

Sections: Evolutionary Patterns & Processes; Organismal Interactions & Ecology

Supports investigation of how species evolve, interact and shape Earth's biodiverse ecosystems

Topics may include:

- Evolution of genes, genomes, and genetic architecture
- Evolution of processes that govern development, morphology, behavior, physiology, speciation, etc.
- Biodiversity discovery and systematics
- Population and quantitative mechanisms
- Morphological, behavioral, or physiological patterns and processes within or between species
- Ecological consequences of biotic interactions, including roles of microorganisms and their interactions with other organisms
- Processes governing population-level features and feedbacks with environmental conditions
- Community characteristics, such as assembly, structure, resilience, and turnover
- Ecosystem dynamics and trajectories
- Trait-based or mechanistic pathways organisms use to mediate interactions, ecology, disease, or environmental responses



Contact info: bio-LS@nsf.gov

Bioinnovation and Infrastructure

Sections: Informatics & Functional Genomics; Infrastructure, Institutes & Centers

Supports investigations into the functional genomic complexity of life and the development of tools, data, and technologies to drive biological discovery

Topics may include:

- Hypothesis-driven and discovery-based omics-scale studies that examine:
 - Relationships among biological structure, function and environment
 - How genome-wide features influence traits across biological levels and environmental conditions
 - Connections of molecular- and cellular-level characteristics to patterns observed in organisms
- Technology development to improve or create innovative shared resources for broad scientific communities
 - Computational algorithms and pipelines
 - Instrumentation
 - Research methods or analytical strategies



Contact info: bio-BI@nsf.gov

BIO has a new core solicitation!



New!

- Core Research in Biological Sciences (BIO Core; [NSF 26-517](#))
- Supports foundational, curiosity-driven, use-inspired, or interdisciplinary research from single investigators or collaboratives
- **Replaces** core solicitations formerly in the Divisions of:
 - Environmental Biology (DEB; NSF 24-543)
 - Integrative Organismal Systems (IOS; NSF 24-546)
 - Molecular and Cellular Biosciences (MCB; NSF 24-539)
- Welcomes proposals in **all areas** of biological sciences
 - Relevant to one or more of BIO's three Thematic Areas, **or**
 - Aligned with national* / NSF priorities, such as artificial intelligence, biotechnology, quantum information sciences

* OSTP/OMB [Memo](#) on FY 2028 Administration R&D Budget Priorities



Tips for BIO Core Proposals

Proposal Preparation

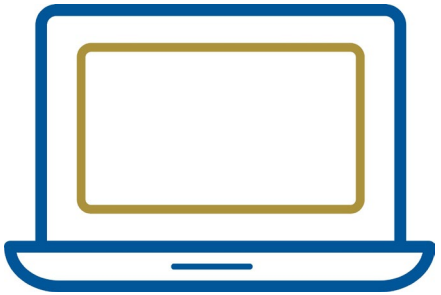
- Follow guidance in PAPPG
- No extra documents needed
- Standard merit review applies
- No special review criteria
- No need to submit Safe and Harassment-free Fieldwork (SAHF) plan unless the proposal is recommended for award

Duration and Budget

- Duration can be 1-5 years
- Budget should match scope of project
- Proposals previously supported as STAR, ARTS, or PurSUIT may be submitted
 - No acronym needed in the title
 - No special criteria for evaluation



How to Apply to BIO Core Solicitation



- In Research.gov or Grants.gov, select the solicitation number, **NSF 26-517**
- 'Where to Apply' information will auto-populate
 - Directorate for Biological Sciences – as 'directorate'
 - Emerging Frontiers – as 'division'
 - BIO CORE – Core Research in BIO – as 'program'



More Biology-relevant Funding Opportunities



- Plant-Biotic Interactions ([NSF 20-576](#))
 - Supports research focusing on interactions between plants and their symbionts, pathogens, and pests and the molecular, cellular, network, and organismal processes that mediate these interactions
 - Jointly funded with USDA/NIFA



- Long Term Research in Environmental Biology ([NSF 21-544](#))
 - Supports research for a period of 10 years or longer to generate an extended time series of data with a focus on evolutionary biology, ecology, and ecosystem science



- International Opportunities
 - Supports research collaborations with multiple countries, administered through the NSF Office of International Science and Engineering ([OISE](#))



Additional Funding Opportunities for Biology-Related Projects

Infrastructure

- For biological research
 - Infrastructure Innovation ([NSF 23-578](#))
 - Bioinformatics, instrumentation, research methods
 - Infrastructure Capacity ([NSF 23-580](#))
 - Cyberinfrastructure, biological collections, field stations / marine labs
- NSF-wide (awaiting new solicitations)
 - Major Research Instrumentation
 - Mid-scale Research Infrastructure 1 & 2

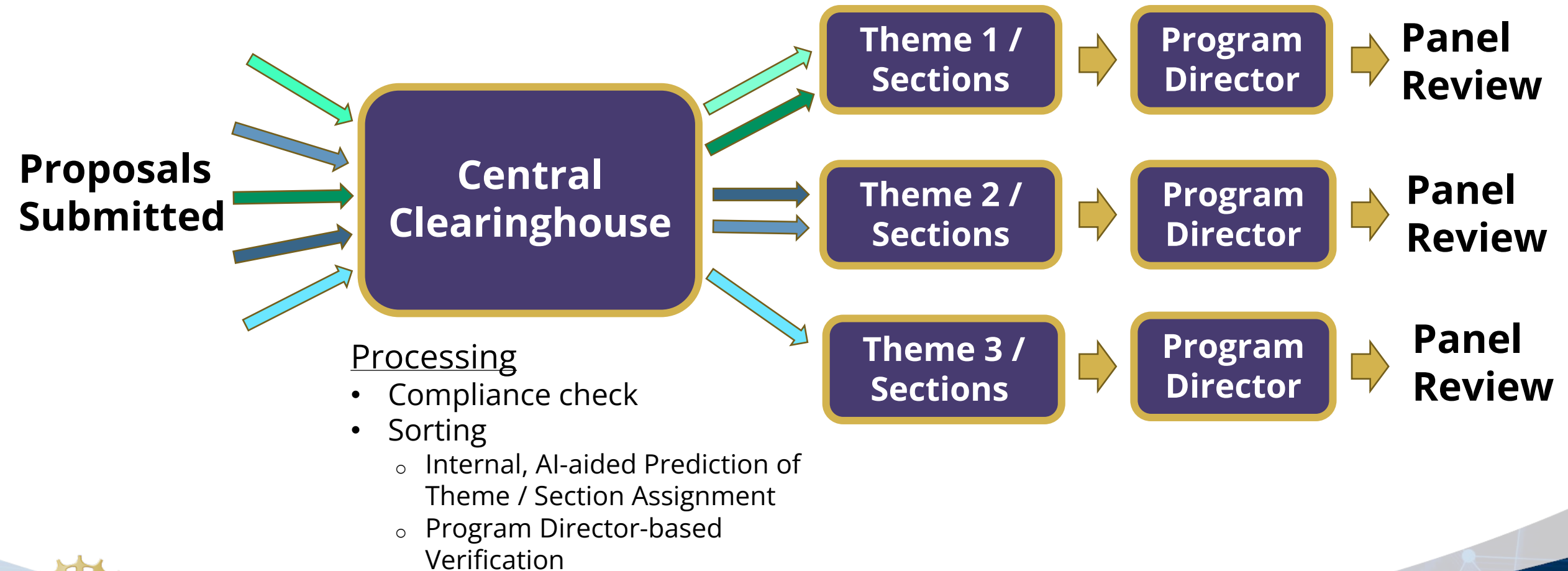
Workforce Development

- Research Experiences for Undergraduates Sites (REU; [NSF 23-601](#))
- Graduate Research Fellowship Program (GRFP; [NSF 26-526](#); **deadline** for Life Sciences, Oct 19, 2026)
- Postdoctoral Research Fellowships in Biology ([NSF 26-504](#); **deadline**, Sept. 29, 2026)
- Faculty
 - Early Career Development (CAREER; [NSF 22-586](#))
 - Facilitating Research at Primarily Undergraduate Institutions (RUI; [NSF 14-579](#))
 - Mid-Career Advancement (MCA; [NSF 22-603](#))



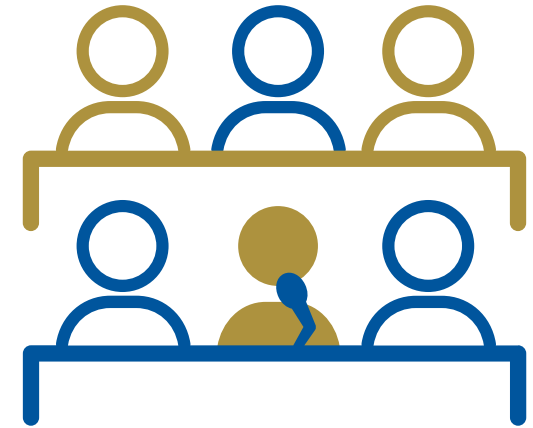
Assignment of BIO Proposals to Panels

What you should know



Panel Updates

- Larger and Broader Panels
 - More scientific breadth, including specialists in your scientific area and generalists in your field
 - Continued attention to avoiding conflicts of interests (COIs)
- Proposal preparation advice:
 - Write to appeal to both generalists in your field and specialists in your area



Take-home Messages on Proposal Assignment and Review

- Administratively, your proposal will be assigned to a theme/section and an expert program director who will manage the review.
- Assignment to a theme/section is based on grouping your proposal with others that are similar in scientific topic or approach.
- Your proposal may move (across people and administrative units) within its first few weeks at NSF.
- We aspire to process your proposal from submission to decision in roughly six months.



Reminder of upcoming application deadlines

- Postdoctoral Research Fellowships in Biology (PRFB); NSF 26-504
 - **September 29, 2026**
 - Supports postdoctoral fellowships that train early-career scientists to apply AI to biological research, advancing biotechnology innovation while preparing future leaders at the intersection of AI and biology
- NSF Graduate Research Fellowship Program (NSF GRFP); NSF 26-526
 - **October 16, 2026**; all reference Letters due
 - **October 19, 2026**; applications for Life Sciences
- Unlocking Dataset Value for AI-Enabled Scientific Discovery (AI Datasets); NSF 26-512
 - **November 4, 2026**
 - Supports unlocking the value of existing scientific datasets by making them more accessible, easier to integrate, and ready for automated AI-driven analysis



NSF Frontier Initiatives

Funding Opportunities Coming Soon



Foundations of Biological Design

To advance the broad measurement and intervention tools to read, write, and reliably control living systems in the physical world. Tools such as gene editing, low-cost synthesis and sequencing, and advanced microscopy, have driven much of modern biology, and the next generation of tools will also draw deliberately on engineering, mathematics, chemistry, and materials science.

Future of Intelligence

To advance our fundamental understanding of intelligence, aimed at breakthroughs in the architectures, hardware, and theories of learning that will define the next paradigm of AI. Just as neuroscience laid the groundwork for neural networks, the next paradigm will likely come from outside computer science and draw deliberately on physics, mathematics, biology, neuroscience, and engineering.

Frontier of Quantum Phenomena

To advance foundational research in quantum information science and technology, building the physical understanding, materials, and theory needed to compute, sense, and communicate in ways that exceed the capabilities of classical systems. This initiative will also support the engineering and instrumentation breakthroughs required to realize the application of quantum to other frontiers.

Advanced Materials and Matter

To advance the design, discovery, and manipulation of the materials that underpin nearly every other frontier, including quantum and computing, semiconductors, robotics, fusion, and biomanufacturing. This initiative will also advance early-stage research on advanced manufacturing methods that accelerate and close the loop between discovery, synthesis, and characterization.

BIO is recruiting rotating program directors!

- Shape the future of science
- Gain new perspectives
- Take valuable expertise back to your home institution



Krisztina

Paul

April

Diana

David

All areas of biological expertise are welcome, including:

Biotechnology

Plant biology

Artificial intelligence

Neuroscience

Systems biology

Biological infrastructure

Program management

Molecular Biophysics

Synthetic biology

<https://www.nsf.gov/careers/openings/bio/bio-2026-120839>

<https://www.nsf.gov/careers/rotator-programs>



BIO Virtual Office Hour Reminders



- Submit questions in the Zoom Q&A box
- Project-specific questions are best addressed individually by contacting a Program Director or Program Alias
- Next BIO Virtual Office Hours:
 - October 15, 2026 (1-2 pm ET): BIO intersections with Artificial Intelligence and other funding opportunities
 - November 18, 2026 (1-2 pm ET): Topic to be determined



For more info:

Sign-up for emails on new funding opportunities, events, due date reminders, and BIO's newsletter!

Visit www.nsf.gov and scroll down until you see the Sign up and social media banner, click on the yellow box, and follow the prompts.

