



Division of Integrative Organismal Systems (IOS) Virtual Office Hour

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

Division of Integrative Organismal Systems (IOS) Welcome!

Program Directors in attendance today:

- Jodie Jawor (MC - Behavioral Systems Cluster)
- Anna Allen (co-MC – Developmental Systems Cluster)
- Kathy Dickson (Mid-Career Advancement; MCA)
- Suzy Renn (Facilitating Research at PUIs; RUI)
- Colette St. Mary (BRC-BIO)

Administrative Support & Technical Assistance:

- Elizabeth Wenker



IOS Virtual Office Hour

Today's Topics

- Updates and reminders
- Recent Solicitations and Dear Colleague Letters (DCLs)
- **Funding opportunities of interest to PIs at PUIs**
- Q&A with program officers



NSF's Broadening Participation Portfolio

Relevant opportunities

Two new programs! Established Program to Stimulate Competitive Research (EPSCoR)

- EPSCoR Collaborations for Optimizing Research Ecosystems (E-CORE) Research Infrastructure Improvement (RII) Program ([NSF 23-587](#))
- EPSCoR Research Incubators for STEM Excellence (E-RISE) RII Program ([NSF 23-588](#))

Centralized information available on NSF's broadening participation portfolio websites:

- <https://new.nsf.gov/funding/initiatives/broadening-participation>
- https://www.nsf.gov/od/broadeningparticipation/bp_portfolio_dynamic.jsp



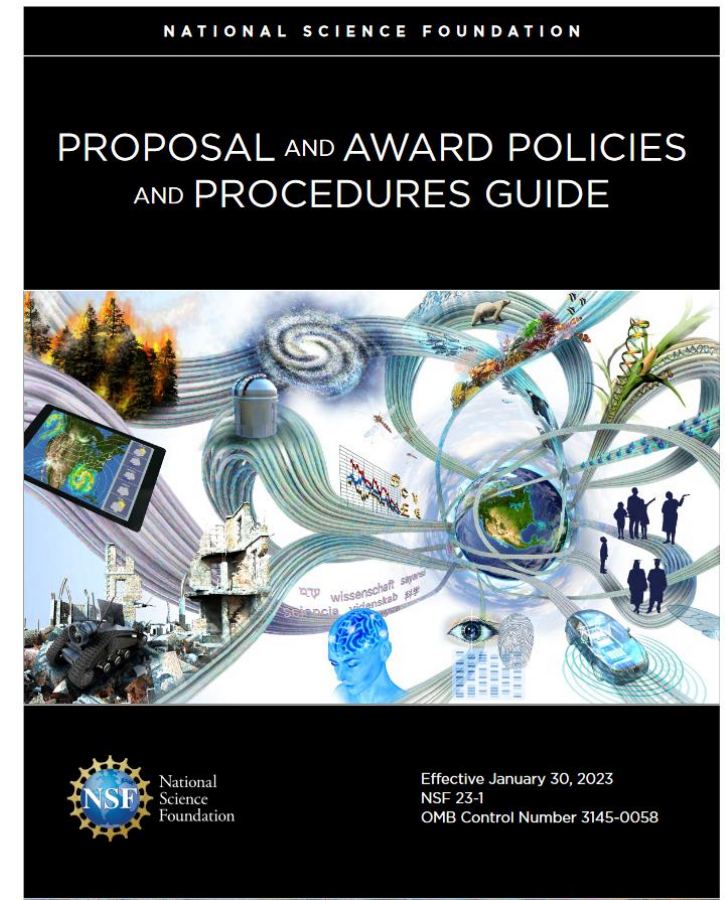
Administrative Updates & Reminders

- Collaborators and Other Affiliations (COA) is needed for **all** PI's and senior personnel.
- Use the PAPPG approved text for Letters of Collaboration.
- The proposal *you are submitting* is to be listed as 'Pending' in the Current and Pending documentation.

- **Safe & Inclusive Working Environments for Off-campus or off-site research**

If off-campus/off-site research is proposed, the box indicating that **must** be checked on cover page

A 2-page SAI Plan is **required** to be uploaded as a Supplemental Document if you are applying to a BIO CORE solicitation or another program participating in the BIO/GEO SAI Plan Pilot. See the [BIO Homepage](#) for more information and participating programs.



Recent Solicitations and DCLs

Core IOS solicitation (23-547), PBI (20-576), and PGRP (21-507) – **No deadlines and no submission limits**

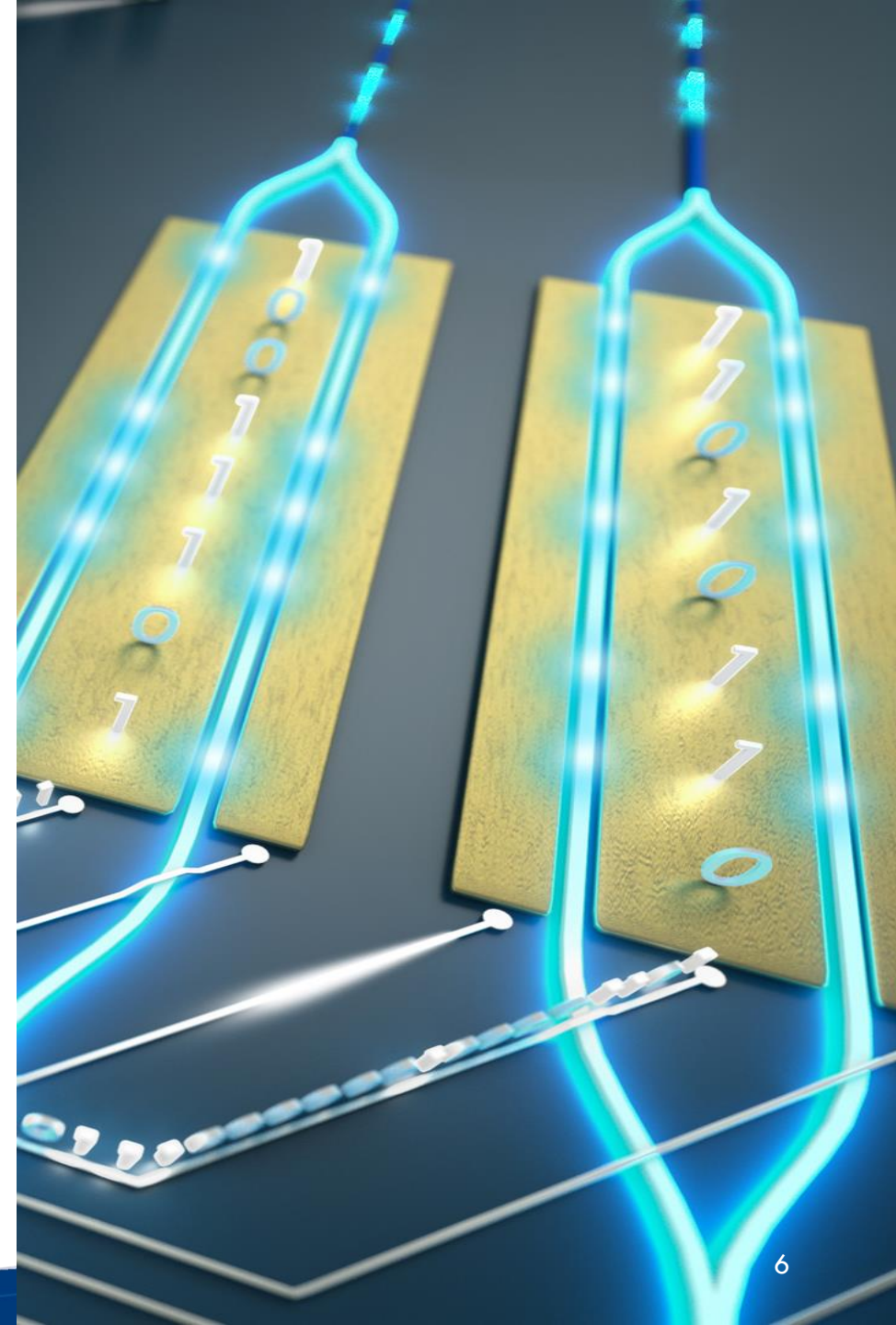
DCL: Bioinspired Design Collaborations to Accelerate the Discovery-Translation Process (BioDesign) (23-055)

Organismal Response to Climate Change (ORCC) (23-622) – **Dec. 13, 2023** ****Recently updated solicitation****

Mid-scale Research Infrastructure-2 (Mid-scale RI-2) (23-570) – **Dec. 18, 2023**

Mid-Career Advancement (MCA) (22-603) – **Feb. 1-March 1, 2024**

IOS Synthesis Center for Understanding Organismal Resilience (23-564) – **preliminary proposal Jan. 12, 2024**



IOS Virtual Office Hour Reminders

- Submit questions in the Zoom Q&A box
- Project-specific questions are best addressed individually by contacting a Program Director
- Next IOS Virtual Office Hour: **16 November 2023**
 - IOS Synthesis Center for Understanding Organismal Resilience (NSF 23-564)



BIO Structure

Directorate for Biological Sciences (BIO)

Division of Environmental Biology (DEB)

- Ecosystem Sciences
- Evolutionary Processes
- Population and Community Ecology
- Systematics and Biodiversity Science
- **Small Grants track**

Division of Integrative Organismal Systems (IOS)

- Behavioral Systems
- Developmental Systems
- Neural Systems
- Physiological and Structural Systems
- Plant Genome Research Program

Division of Molecular and Cellular Biosciences (MCB)

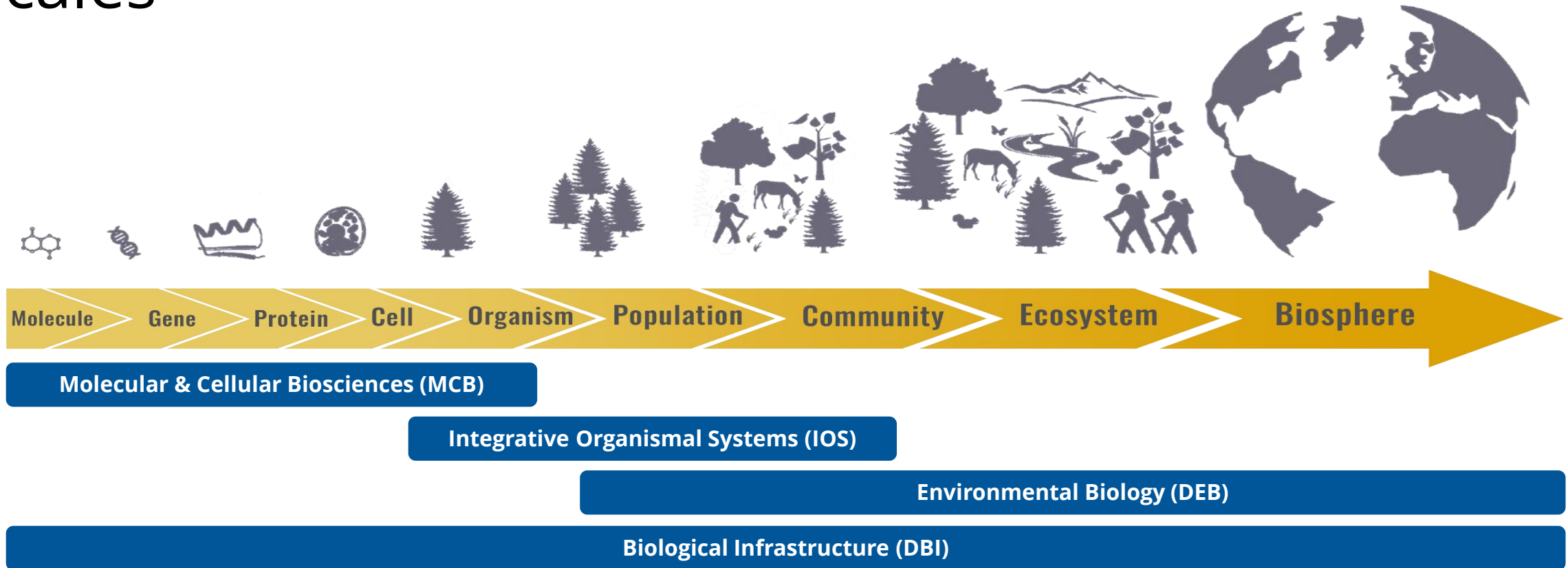
- Cellular Dynamics and Function
- Genetic Mechanisms
- Molecular Biophysics
- Systems and Synthetic Biology

Division of Biological Infrastructure (DBI)

- Research Resources
- Human Resources
- Centers, Facilities, and Additional Research Infrastructure



How the BIO Divisions Support Research Across Scales



RUI Research in Undergraduate Institutions

- **Who:** Faculty at Primarily Undergraduate Institutions
- **What:** An opportunity to support PUI faculty engagement in their professional field, build capacity for research at the institution, and support integration of research and undergraduate education.
- **Where:** At any U.S. PUI (awarded ≤ 20 PhDs in last 2 years)
- **When:** Any time (in BIO) (**NSF 14-579**)



RUI Solicitation Specific Criteria, etc.

- **RUI Impact:** A 5-page RUI Impact Statement provides information on the potential impact of the proposed research activity on the PI's institution, department, and student participants.

Articulate & justify the proposal specific activities:

- Postdoc, technician, or postbac to smooth transitions, add continuity, or provide oversight at appropriate level.
- Integrated with teaching, summer activity, or release from teaching.
- Training undergraduates or new skills for PI.
- On campus activities, off-site collaboration, or lab visits as needed for equipment or infrastructure.
- Pedagogy development, service demands, or research community engagement.

**Remember, many reviewers have not been at a PUI,
and PUIs come in different forms.**



ROA Research Opportunity Supplement

- **Who:** NSF funded investigators.
 - Will host faculty from Primarily Undergraduate Institutions. Funded PUI faculty can apply for this. Funded faculty at non-PUIs can apply for this and host a PUI colleague.
- **What:** To increase or maintain a visitor's research capability and effectiveness or research teaching capabilities at the home institution while enhancing the impacts and outcomes of the NSF-funded research of the host principal investigator.
- **Where:** Any NSF-funded research lab.
- **When:** ~3 months prior to activities; usually for a summer experience
- **Amount:** \$20,000 - \$80,000
- **See also:** Research Experience for Teachers Supplement (RET)
Research Assistantships for High School Students (RAHSS)



Building Research Capacity of New Faculty in Biology (BRC-BIO NSF 22-500)

Enhance research capacity by supporting new faculty of biology at minority-serving institutions (MSIs), predominantly undergraduate institutions (PUIs), and other universities and colleges that are not among the nation's most research-intensive institutions (i.e., Not R1). **Expand opportunities for students** to engage in authentic research experiences.

- Supports new faculty initiating and building independent research programs
- Supports projects with biology-focused research collaborations
- Supports establishment of sustainable research programs that enrich undergraduate research experiences
- Provides up to \$450,000 in research costs & up to \$50,000 in justified equipment costs over 3 years



Building Research Capacity of New Faculty in Biology (BRC-BIO)

Proposals

- **6 page - Project Description** w/Intellectual Merit and Broader Impacts
- **2 page - Impact Statement** (reviewed)
 - Describes the impact of the project on PI's research and career
 - Impact on student research experiences
- **1 page - Institutional Letter of Support** (not reviewed)
 - Statement that the PI is eligible for this program
 - Statement of support for the proposed plan of research and teaching

Submission window June 1-30, 2024; annually thereafter



Building Research Capacity of New Faculty in Biology (BRC-BIO)

Eligibility

- **Eligible Institution**
- PIs must be **Assistant Professor** rank within first **3 years of appointment at submission date**
- The PI's appointment must have **both research *and* educational** responsibilities



Proposal Review for BRC-BIO

- Dedicated panels at Division level with reviewers from similar institution types well represented
- Includes solicitation-specific criteria,
 - The potential of the project to increase the capacity for research of the PI
 - The potential to increase the diversity and number of students engaged in authentic research experiences
- Proposals should be understandable by someone who is not a specialist in the proposed questions, techniques, and approaches



Contact us with questions at: BRC-BIO@nsf.gov



CAREER Faculty Early-Career Development Program

- **Who:** Tenure track faculty members at assistant professor level, or equivalent
- **What:** Designed to help junior faculty members develop activities that can **effectively integrate research and education** within the context of his/her organization.
 - Emphasizes importance of early development of academic careers, provides stable support for such over 5 years, encourages the integration of research and education
- **Where:** At any U.S. Institution of Higher Education or non-profit organization
- **When:** July 24, 2024 (NSF 22-586).

Contact Joanna Shisler (jshisler@nsf.gov) with questions



Ingredients for a CAREER Proposal:

- **Research, Education and Broader Impacts;**
- Research and educational activities are **integrated/synergistic;**
- **Other broader impacts**, besides the education activities, that will accrue from the project; and
- **Departmental Letter** demonstrating commitment to the career development of the investigator



Mid-Career Advancement (MCA) Program – NSF 22-603

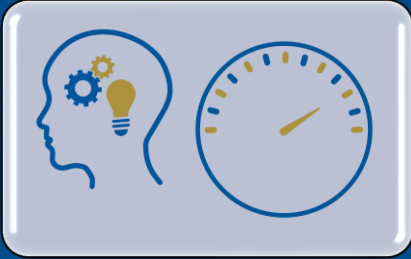
Directorates Participating: BIO (all), GEO (all), SBE, EDU, TIP... *not MPS, CISE, or ENG*

- **Who:** Scientists and engineers at the Associate Professor rank (or equivalent) with at least 3 years at that rank
 - Plus a **PUI Track** *only in BIO and GEO* that extends eligibility to Full Professors *only at Primarily Undergraduate Institutions*
- **What:** An opportunity to substantively enhance and advance the PI's research program and career trajectory through synergistic and mutually beneficial mentored partnerships
- **When:** Target window: **1 February to 1 March** each year

MCA.info@nsf.gov and the MCA FAQs for more information



Mid-Career Advancement (MCA) Program – NSF 22-603



Protected Time (salary): Up to a total of 6.5 months of salary plus fringe over the course of the 3-yr grant, not yearly.



Resources (direct costs): \$100,000 in support of the research advancement and training plan.



Partner: Up to 1 month of summer salary (total, not yearly), or other reasonable costs, for each partner.



MCA.info@nsf.gov and the [MCA FAQs](#) for more information

NSF ETAP (Education & Training Application)

- Easy way to discover and apply to opportunities that strengthen your academic career.
- Principal Investigators of NSF Awards can customize NSF's ETAP application to provide opportunities for applicants to participate in.
 - ETAP currently does not include all of NSF Education and Training Opportunities available, but it is expanding.



IOS Cluster and Program Contacts

Behavioral Systems	Suzy Renn	srenn@nsf.gov
Developmental Systems	Anna Allen	akallen@nsf.gov
Neural Systems	Floh Thiels	ethiels@nsf.gov
Plant Genome Research Program	Diane Jofuku Okamuro	dokamuro@nsf.gov
Physiological and Structural Systems	Ted Morgan	tmorgan@nsf.gov



Blogs and Virtual Office Hours Across BIO

IOS in Focus

<https://iosblog.nsfbio.com/>

DEBrief

<https://debblog.nsfbio.com/>

DBInfo

<https://dbiblog.nsfbio.com/>

MCB Blog

<https://mcbblog.nsfbio.com>

