Program Overview

Supports networks of scientists focused on integrating biological research discoveries with innovations in education to improve learning experiences for undergraduates

Projects are responsive to (and contribute to) ‘Vision and Change in Undergraduate Biology Education’
RCN-UBE: What, when, and how

- Funding Mechanisms
  - Incubator awards (up to $75K, one year duration) to fund the formation of new teams
  - Full awards (up to $500K, up to 5 years duration) to fund more mature projects

- When
  - January 24, 2023 (Fourth Thursday in January annually)

- How

Develop a plan...

- Use expertise and current and new connections to generate a network that improves biology education
- There are many different kinds of networks
  - Browse current RCN-UBE awards through the link from the program page

As needed, an incubator could help establish this

Foundation for a network

Full proposal for growth into a larger network

Does not support established networks
Networks are built from topics and activities described in the solicitation

- Active learning
- Research in courses
- Service learning and outreach
- Integrating new areas: AI, biotech etc.
- Online approaches
- Assessment
- 2-4 year transition
- Professional development faculty and others
- Quantitative skills
- Integrating teaching and research
- Broadening participation
- Technology training for students
- Access to libraries and research facilities
- BIO for non-majors
- Using field stations and collections
- Technology training for students
- Access to libraries and research facilities

RCN-UBE: How Does it Differ From a “Regular” Award?

- Supports projects to build communities of biology faculty (“We” instead of “I”) to solve problems and accomplish more than any one person or institution could achieve.

- RCNs foster networking activities (such as conferences, workshops, student and faculty exchanges) and will not directly support laboratory and field research.
When Preparing Your RCN-UBE Proposal, Be Sure to Address:

• The seven RCN-specific guidance items (next slide)

• Additional RCN-UBE guidance - How the network will:
  • Evaluate and assess its effectiveness, activities, and products
  • Engage its partners, grow, evolve, and be sustained.
  • Identify metrics and contribute to the infrastructure beyond traditional products (such as papers).

• The RCN-UBE-specific review criteria

Guidance items

1. Topic/focus of research coordination—need a theme
2. Principal investigator (PI) from single organization—no collabs.
   • Additional organizations managed through sub-awards
3. Steering committee comprised of co-PI and other named senior personnel.
   • They are key participants from network institutions who assume leadership and management roles
4. Network participants.
   • Diverse institutions, participants (URM, career level),
   • Regional, national, global depending on nature of activities.
   • Open access
5. Coordination/management mechanism. Need a management plan
6. Information and material sharing.
   • Plan for data management, sharing and long-term availability
7. International participation.
   • Encouraged and travel support allowed
NSF Merit Required Review Criteria: Intellectual Merit

• Importance to **advancing knowledge and understanding**
• **Creative**, original, and/or **potentially transformative**
• Proposers’ qualifications
• Access to sufficient resources
• Proposed activity well-conceived and organized
• Data management plan
• Post-doc mentoring plan, if applicable
• Evaluation

NSF Merit Required Review Criteria: Broader Impacts

• Promote teaching, **training**, and learning
• Broaden the participation of underrepresented groups, new institutions, influence on field, etc.
• Enhance the infrastructure for research and education
• Partnership development
• Disseminate results broadly
• Benefit society
Review Criteria Specific to RCN-UBE

- RCN-UBE proposals will be evaluated for their creativity, innovation, and potential to advance and transform biology education, including emerging areas at the interface of other disciplines.
- RCN-UBE proposals must establish the infrastructure to create new networks of scientists, educators, and other stakeholders who have not previously worked together.
- For proposals involving international collaborations, reviewers will consider: mutual benefits, true intellectual collaboration with the foreign partner(s), benefits to be realized from the expertise and specialized skills, facilities, sites and/or resources of the international counterpart, and active engagement of U.S. students and early-career researchers in the RCN-UBE activities.

A few FAQs

- What is equitable support?
  - Provision that all network members can fully participate
- Does biology education mean majors only?
  - No, it could involve non majors, courses in other departments
- Are steering committee members ever considered to be network members?
  - Yes, when expertise is unrelated to network (e.g. DEI)
- If our network will meet virtually, what could we spend funds on?
  - Stipend to attend the virtual meeting
  - Supplies for classroom activities
  - Experts- course curriculum design, DEIA,
Research Coordination Networks in Undergraduate Biology Education (RCN-UBE)

PROGRAM SOLICITATION
NSF 22-522

DUE DATE
January 24, 2023

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