



**National Science Foundation**  
**4201 Wilson Boulevard**  
**Arlington, Virginia 22230**

Dear Colleague:

We call your attention to an opportunity to request support for networks that will catalyze positive changes in biology undergraduate education. Application of new technologies to enhance pedagogy, increased use of inquiry based learning, enhancement of curricula with ideas from the frontiers of science, and building research into curricula to motivate the next generation of scientists all may benefit from increased collaboration among those who develop and offer undergraduate biology curricula. Research Coordination Networks – Undergraduate Biology Education (RCN-UBE) will provide opportunities to join biology and education researchers and practitioners in networks that enhance the exchange of ideas and innovative practices.

The Research Coordination Networks (RCN) Program considers proposals that encourage and foster interactions among scientists to create new research directions or advance a field. Innovative ideas for implementing novel networking strategies are especially encouraged. Groups are supported to communicate and coordinate their research, training and educational activities across organizational, institutional, and geographical boundaries. The proposed networking activities should have a theme as a focus of its collaboration. The focus could be on a broad research question, a specific group of organisms, or particular technologies or approaches.

For details of the RCN program see: [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=11691&org=BIO](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11691&org=BIO) .

The RCN-UBE Track is part of the RCN Program in Biological Sciences ([NSF 09-554](#)). The Directorate for Biological Sciences and the Directorate for Education and Human Resources (Division of Undergraduate Education) are working together to augment funding to the RCN Program to support the RCN-UBE Track.

The RCN-UBE track further defines the scope of and expands the audience for the RCN program. It focuses on proposals that address the following special review criterion from the RCN solicitation (Section VI.A.):

**Integration of Education and Research:**

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports

at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

We are seeking proposals that foster the development of networks exploring topics in biology undergraduate education and related disciplines. These could include, but are not limited to such topics as:

- Improving learning in "gateway" courses (e.g., exploring the use of methods that foster active learning or inquiry-based learning).
- Improving learning through the use of emerging technologies in the biology curriculum.
- Strategies and approaches for engaging biology faculty in professional development activities related to undergraduate education
- Incorporating emerging sub-disciplines into the biology curriculum (e.g., informatics research, proteomics, ecological stoichiometry).
- Improving assessment of student learning.
- Improving the transition of students from two-year to four-year institutions.
- Incorporating authentic research experiences in undergraduate laboratory courses, with an emphasis on introductory and lower division courses.

Investigators, who wish to have a project considered in response to this Dear Colleague Letter, should submit their proposal to the RCN program in compliance with normal target dates and/or deadlines. The title of the project must include the prefix "RCN-UBE". Proposals will be reviewed by standard review practices.

Proposers should review the RCN Program Solicitation to ensure that eligibility requirements are met. Investigators with an interest in the RCN-UBE track are strongly encouraged to send a brief e-mail note of inquiry to [RCN-UBE@nsf.gov](mailto:RCN-UBE@nsf.gov) to initiate discussion of potential proposal topics with an appropriate NSF program officer.

We look forward to receiving your proposals.

Sincerely,  
James P. Collins  
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