



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 21-026

Dear Colleague Letter: Requesting proposals for online biology education to the Research Coordination Networks for Undergraduate Biology Education

December 03, 2020

Dear Colleagues:

With this Dear Colleague Letter (DCL), the Directorates for Biological Sciences and Education and Human Resources encourage the submissions of proposals to the [Research Coordination Networks for Undergraduate Biology Education \(RCN-UBE\) Program](#) that focus on developing, piloting, and sharing innovative and transformative approaches for online undergraduate biology courses, particularly those that foster inclusive approaches that encourage student engagement and retention in biology. The RCN-UBE program is well positioned to support these types of proposals since its goal is to improve undergraduate biology in different areas by leveraging the power of a collaborative network that supports groups of investigators to communicate and coordinate their research, training, and educational activities across disciplinary, organizational, geographic, and international boundaries.

The COVID-19 global pandemic has resulted in most undergraduate students receiving some form of full or hybrid digital, online courses. Given the short time to prepare for this transition, colleges did not have the opportunity to design holistic experiential and research-based online learning environments. Thus, there is a critical need to develop and test innovative strategies and share best practices that can transform the online learning environment using engaged learning pedagogies that effectively provide high-quality experiences for biology students. Such approaches are expected to be strongly student-centered and consider diversity, equity, and inclusion in all design aspects. These efforts will likely outlive this pandemic and have the potential to transform higher learning in biology to offer more options to diverse students in many new and emerging settings.

As a research network, we encourage leveraging existing digital biology platforms, infrastructure, or datasets such as (but not limited to): Course-based Undergraduate

Research Experiences Network (CURENet), QUBES: Supporting Teaching and Learning in Quantitative Biology, the National Ecological Observatory Network (NEON), the Long-term Ecological Research Network (LTER), the Integrated Digitized Biocollections (iDigBio), Protein Data Bank (PDB), Cyverse, and the Global Biodiversity Information Facility (GBIF). Innovative use of biological field stations and existing museum and specimen collections is also encouraged.

Proposals should be submitted to the RCN-UBE program by the deadline stated in the solicitation. For more information on this program, see the program page: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505495.

Please consider attending upcoming virtual office hours about the program during the dates listed below:

- December 4, 11, 18, 2020
- January 8, 14, 15, and 22, 2021

Please direct any questions pertaining to this DCL or the RCN-UBE program to:

Sophie George, Program Director, sgeorge@nsf.gov
Mary Crowe, Program Director, mcrowe@nsf.gov

Sincerely,

Joanne Tornow
Assistant Director
Directorate for Biological Sciences

Karen A. Marrongelle
Assistant Director
Directorate for Education and Human Resources