

## **A. Funding Opportunities to Support Change in Undergraduate Biology Education**

### **National Science Foundation**

Course, Curriculum and Laboratory Improvement (CCLI): the most flexible of the programs as it includes both exploratory (pilot) phase (Type 1), an expansion phase (Type 2) and a large national dissemination phase (Type 3).

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5741](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5741)

STEM Talent Expansion Program (STEP): supports projects to increase the number of STEM majors at the applicant institution. Is flexible as to mechanisms to use (curricular change, bridge programs with two year schools, etc) but its goal is increase in recruiting, retaining and graduating majors in the STEM disciplines.

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5488&org=OIA](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5488&org=OIA)

National STEM Education Distributed Learning (NSDL): supports implementation of web-based sites of learning materials for all STEM disciplines.

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5488&org=OIA](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5488&org=OIA)

Research Coordination Networks- Undergraduate Biology Education (RCN-UBE): designed to encourage and foster interactions between groups already active in efforts to improve undergraduate biology education with the aim of increasing coordination of efforts and leveraging of resources. Includes opportunities for planning grants (a new feature).

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=11691&org=NSF&sel\\_org=NSF&from=fund](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11691&org=NSF&sel_org=NSF&from=fund)

Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences (UBM): supports design and implementation of joint research and educational experiences for undergraduate majors in mathematics and biology, with the goal of increasing graduate students with an understanding of research at the interface of the two sciences and the abilities to pursue it. [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=12207](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12207)

Faculty Early Career Development (CAREER): supports junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations to build a firm foundation for a lifetime of leadership in integrating education and research.

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=503214](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214)

### **Howard Hughes Medical Institute**

Science Education Alliance (SEA): an opportunity to institute an introductory student laboratory that involves undergraduates in a national research project to identify and work with phage isolated from soil; protocols, materials and equipment and coordination supplied by HHMI.

<http://www.hhmi.org/grants/sea/>

## **National Institutes of Health**

Institutional Research and Academic Career Development Awards (IRACDA): combines a traditional mentored postdoctoral research experience with an opportunity to develop teaching skills through mentored assignments at a minority-serving institution.

<http://www.nigms.nih.gov/Training/CareerDev/MOREInstRes.htm>

## **B. Information Sources from or Supported by the Funders**

### **American Association for the Advancement of Science** (Supported by NSF)

Biology Education Network (BEN): the National Science Digital Library Pathway for biological sciences education; it provides links and a search engine to access material provided by 26 biology related professional societies.

<http://www.bioscienet.com/portal/>

### **Howard Hughes Medical Institute**

Information about HHMI's many programs including more details about SEA and exemplary materials produced by HHMI and its grantees for use by others in their undergraduate programs. It includes the *Biointeractive* site which contains the Holiday Lectures, a series on cutting edge science delivered by leading scientists, and much more.

<http://www.hhmi.org/coolscience/index.html>.

### **National Institutes of Health**

A listing of all the IRACDA sites and their activities.

<http://www.physiology.emory.edu/FIRST/>

<http://www.physiology.emory.edu/FIRST/iracdaprograms.htm>