



The NSDL BiosciEdNet (BEN) Scholars Program for Undergraduate Life Sciences Faculty

Call for Applications DEADLINE: September 22, 2011

Introduction

The National Science Digital Library (NSDL) Biological Sciences Pathway, BiosciEdNet (BEN), invites undergraduate faculty in the biological sciences to apply to become BEN Scholars. The BEN Scholars Program is one of the grassroots outreach activities of the BEN Collaborative of more than 20 life sciences professional societies (see Table 1 below). The **goal** of the BEN Scholars Program is to promote the use of digital library resources and student-centered teaching and learning methods in higher education, specifically in biological sciences lecture and laboratory courses, and in research training programs. The BEN Scholars program works both directly with faculty who are BEN Scholars and indirectly, through outreach activities led by BEN Scholars. Outreach activities are aimed at biological sciences faculty, postdoctoral fellows, and middle and high school teachers. Activities are carried out on campus with departments, locally throughout the region, and nationally through professional societies.

What Do BEN Scholars Do?

Using digital libraries, BEN Scholars learn how to transform lectures and laboratories to be more student-centered and to integrate career exploration and up-to-date science content across fields into existing curricula. BEN Scholars receive professional development in:

- 1) using and submitting resources to digital libraries;
- 2) implementing best practices in teaching and learning;
- 3) integrating digital resources into courses and measuring their impact on student learning;
- 4) leading digital library outreach activities with colleagues through presentations, workshops, and one-on-one mentoring; and
- 5) networking with other the BEN Scholars for a minimum 18 month period.

BEN Scholars also receive recognition from the participating organizations, travel support, and a small stipend for completion of all fellowship activities (\$1,000 total). Half of the stipend (\$500) is paid for completion of all Institute and online professional development activities. The other half (\$500) is paid for classroom testing, including developing a report and responding to comments for a month.

Professional development activities take place via two primary routes. First, throughout the fellowship period, BEN Scholars complete online, interactive activities to gain content knowledge, discuss their findings with colleagues, and begin applying what they learn to their own classrooms. They work collaboratively with fellow Scholars and peer mentors to develop resources for submission to digital libraries and plans for outreach activities. In January, BEN Scholars gather for the NSDL/BEN National Leadership Training Institute. The Institute provides additional opportunities to collaborate and share with other BEN Scholars and mentors and make final plans for developing resources and outreach activities.

IMPORTANT NOTE: The next NSDL BEN National Leadership Training Institute is scheduled for January 25-28, 2012 in Washington, D.C. The Institute will start at 1:00pm on Wednesday, January 25 and end by noon on Saturday, January 28. **ALL APPLICANTS FOR THE BEN SCHOLARS PROGRAM MUST BE AVAILABLE TO ATTEND THE ENTIRE INSTITUTE.**

Objectives: By the completion of the Scholars Program, BEN Scholars will:

- 1) Increase their facility in using the following digital libraries:
 - a. The BEN portal;
 - b. The digital libraries of BEN Collaborators; and
 - c. The NSDL and NSDL Pathways libraries.
- 2) Deepen their knowledge of student-centered learning methods, including:
 - a. Inquiry-based teaching;
 - b. Interactive lectures;
 - c. Problem-based learning
 - d. Authentic assessment;
 - e. Integrating digital resources and measuring their impact on student learning; and
 - f. Career information integration.
- 3) Expand their skills regarding:
 - a. Available strategies and tools allowing them to promote the use of the BEN portal, the digital libraries of BEN Collaborators and the NSDL; and
 - b. Submission of teaching resources to digital libraries of BEN Collaborators to their colleagues.

In addition, BEN Scholars will be required to:

- 4) Complete 12 online, interactive professional development assignments;
- 5) Develop and submit a teaching resource for inclusion in a BEN-related digital library, including:
 - a. Selecting an appropriate library for submission, including appropriate content area, resource type, and copyright requirements;
 - b. Developing a resource that meets the required guidelines for inclusion in that library;
 - c. Successfully utilizing the online tools to describe the resource (metadata); and
 - d. Working with the digital library staff and reviewers to complete any revisions required following the review process.
- 6) Plan a classroom field test of at least one digital library resource during a summer or fall 2012 course(s). Scholars must assess the impact of the digital library resource use by one of the methods provided, produce a report for publication on the BEN portal website, and respond to online comments about the classroom test for at least one month. Methods range from instructor observation to more rigorous assessment.
- 7) Plan and implement at least one BEN Outreach Activity to promote the use of digital library resources and student-centered learning.
- 8) Use at least one digital library resource in career education in one or more courses.

Who Should Apply?

The BEN Collaborative is seeking individuals who are leaders in biological sciences teaching and learning and who have a passion for improving undergraduate education. The program welcomes applications from all undergraduate institutions, including community colleges. Prospective BEN Scholars should have a demonstrated commitment to professional leadership and outreach and a good track record of implementing enhancements to teaching and learning in their own classrooms. A successful candidate should aspire to be a BEN user, author, and advocate.

Applications will be reviewed from individuals who meet the following criteria:

- An undergraduate biological sciences faculty member teaching currently at a U.S. accredited institution of higher education;
- A leader in enhancing teaching and learning; and
- A U.S. citizen or U.S. Permanent Resident.

What are the Selection Criteria?

Applicants are chosen through a competitive evaluation and selection process. Space is limited to 15 BEN Scholars annually. Individuals will be selected based upon their commitment to:

- Improving biological sciences education in higher education institutions; and
- Leadership development and outreach in the biological sciences.

Efforts will be made to select a cohort that represents all fields of biological sciences; all types of educational institutions types; ethnic/racial diversity; and geographical diversity. Special consideration will be given to institutions serving significant numbers of students from groups that are traditionally underrepresented in the biological sciences.

Specifically, the NSDL Biological Sciences Pathway is seeking Scholars whose work is likely to make a significant contribution to our understanding of integrative learning in the biological sciences. To that end, proposals will be evaluated with the following questions in mind:

- 1) How feasible is the proposed BEN and NSDL outreach plan?
- 2) Can the proposed goals be addressed given the candidate's experience and access to available resources including prior understanding and practice, institutional infrastructure, a suitable student population, and digital resources?
- 3) Does the candidate demonstrate a commitment to complete professional development activities and disseminate information about curriculum resources, teaching practices, BEN, and the NSDL?
- 4) Has the candidate presented a clear plan to contribute to and build upon existing resources, both digitally and in print?
- 5) What leadership abilities has the candidate demonstrated previously in his/her area of expertise and outreach?
- 6) How committed is the candidate's institution to sustaining the candidates' work, including digital resource tools and accessibility, students, and release time (to attend occasional conferences or run periodic workshops)?

What is the Application Deadline?

Applications are due by Thursday, September 22, 2011, midnight EST.

Questions?

Questions about applications can be sent to Gerard Boulin (gboulin@aaas.org).

How Do I Apply?

Applications will only be accepted via submission through the American Physiological Society online application center (www.the-aps.org/awardapps). APS is one of the BEN Collaborative partners.

Table 1: Project Background and BEN Collaborators

Project Background	BEN Collaborators
<p>The BEN Collaborative was established in 1999 by the American Association for the Advancement of Science (AAAS) with 11 other professional societies and coalitions. Since its inception, the BEN Collaborative has grown from its original 11 to 25 collaborators. Educational e-resources from all BEN collaborators are aggregated into a one-stop, searchable catalog at the BEN portal (www.biosciednet.org). BEN resources can help educators to engage student interest, shorten lesson preparation time, provide concept updates, and develop curricula that are in line with standards for content, use of animals and humans, and student safety. The BEN Collaborative's overall mission is not only to provide seamless access to e-resources but also to serve as a catalyst for strengthening teaching and learning in the biological sciences.</p> <p>The BEN portal includes a catalog of more than 17,000 peer reviewed e-resources including images, reviews and journal articles, lab exercises, lesson plans, teaching strategies and guidelines, and animations. Resources cover more than 77 biological topics including microbiology, botany and plant sciences, physiology, biochemistry and molecular biology, cell biology, human biology and anatomy, genetics and heredity, and ecology.</p> <p>The training program for BEN Scholars is developed by the BEN Collaborative in partnership with the University Corporation for Atmospheric Research (UCAR). The primary funder of the BEN Pathway and the NSDL (http://nsdl.org) is the National Science Foundation (NSF), which created the digital library to provide organized access to high quality resources and tools that support innovations in teaching and learning at all levels of science, technology, engineering, and mathematics education.</p>	<ul style="list-style-type: none"> • American Association for the Advancement of Science • Association for Biology Laboratory Education • American Institute for Biological Sciences • American Physiological Society • American Phytopathological Society • American Society for Cell Biology • American Society for Microbiology • BioQUEST Curriculum Consortium • Bio-Link (the NSF Advanced Technological Education Center for Biotechnology) • Botanical Society of America • Dolan DNA Learning Center • Entomology Digital Library • Ecological Society of America • Howard Hughes Medical Institute • Faculty for Undergraduate Neuroscience • Human Anatomy and Physiology Society • Microbial Life Education Resources • National Association of Health Science Education Partnerships • National Health Museum-Access Excellence • Society for Developmental Biology • Society for Integrative and Comparative Biology • Society of Toxicology • <i>Science</i> Collections • <i>Science's</i> Signaling • Video and Image Data Access (VIDA) for Science Inquiry during Teacher Preparation

Visit BEN at www.biosciednet.org



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NSDL BEN Scholars Program – Application

All application materials must be submitted electronically no later than Thursday, September 22, 2011. Applications will only be accepted via submission through the American Physiological Society online application center (www.the-aps.org/awardapps). APS is one of the BEN Collaborative partners.

BEFORE starting your application, have the following materials ready to submit. Note that items 1, 2, and 3 MUST be submitted in PDF format. If needed, you can convert Word documents to PDF files at <https://www.acrobat.com/createpdf/en/home.html>. When you have prepared the application materials, follow the instructions in Table 2 below to upload your application online.

1. NSDL BEN Application Cover Sheet (see form below), completed and converted to PDF form.
2. Proposal narrative of no more than 5 (five) pages. Narrative must be double-spaced with pages numbered and your name and institution in the header of each page. Narrative must include:
 - A. Statement confirming you are available to participate in all aspects of the NSDL BEN Scholars Program including:
 - BEN National Leadership Institute, January 25 – 28, 2012 in Washington, DC (travel funds provided by the BEN Scholars program);
 - 12 online, interactive professional development activities;
 - Participation in the BEN Online Community, including follow-up monitoring of your professional development for a minimum of 18 months;
 - Outreach presentations on campus or at regional and/or national meetings in 2012 and 2013; and
 - Leading and mentoring faculty colleagues in student-focused learning using digital resources.
 - Additional BEN activities as outlined in the Objectives above.
 - B. Description of your teaching responsibilities including course names, levels and frequency, number of students, types of students (biology majors, nursing and/or pre-health, biotechnology, or engineering majors, education majors, non-science majors, general education, etc.).
 - C. Description of your past or current outreach activities including education or outreach grants that you have received and types and numbers of people reached.
 - D. Description of education workshops or conferences that you have attended.
 - E. Description of your personal and/or professional goals for using digital resources in your teaching.
 - F. Description of a resource you have created which could be contributed to BEN.
 - G. Description of your potential outreach activities for the BEN Collaborative and the NSDL (targeted at members of the higher education community, postdoctoral fellows, and/or HS/MS teachers).
 - H. A list of any BEN partner societies of which you are a member.

3. A *Curriculum Vitae*, limited to two-pages and containing relevant information to the NSDL BEN Scholars Program

4. The name, title, and email address of an institutional administrator or supervisor whom you have asked to write a letter of recommendation for your application. The letter should describe institutional support available to the applicant as you transform your lessons and reach out to faculty on campus as well as in your community and regionally and nationally. <mailto:> The online award system will ask you to enter the name and email address and will automatically request the letter from your administrator or supervisor. **NOTE: You should discuss the letter request with the administrator/supervisor BEFORE submitting the application!**

Table 2: Directions for Submitting Application Online

To submit an application at the APS awards site:

- 1) Go to: <https://www.the-aps.org/awardapps/login/index.cfm>
- 2) Type in your email and create a password (must be 8-20 characters long)
- 3) Confirm that your email is correct and click “Yes, my e-mail is correct, CONTINUE”
- 4) Click on the red bar “Apply for Myself Now”
- 5) Create your profile. NOTE the following:
 - a. You do not need to be a member of the APS to apply for the BEN Scholars fellowship.
 - b. Be sure to provide a telephone number.
 - c. Do not choose an APS Section unless you are an APS member.
- 6) Submit your profile.
- 7) STEP 2: You will see a drop down list of programs for which you are eligible. Select the 2011-2012 BEN Scholars program from the list and click “Continue Application.”
- 8) Read the instructions carefully and complete the application. NOTE the following:
 - a. If you start your application but need to finish it later, be SURE to click “I will finish later” at the bottom of the page. If you do not do so, your application will not be saved!
 - b. When you click either button, please be PATIENT. You are uploading files and this can take time. If the submit button is grey, your application is being processed or saved.
 - c. Please DO NOT submit Word documents. If you need to convert a Word document to a PDF, use this link: <https://www.acrobat.com/createpdf/en/home.html>
- 9) The application will send an email to the administrator providing your letter of support. Please be sure they are aware of your application and expect to receive an email from the APS Award system.

If you have questions about the APS Award system, contact Marsha Matyas, mmatyas@the-aps.org.

NSDL BEN Application Cover Page

Name (first name, middle initial, last name):	
Job Title and/or Academic Rank:	
Discipline and/or Professional Field:	
Institution:	
Department:	
Campus Address:	
Country:	
Work Phone Number:	
Email Address:	
Academic or Personal website (optional):	

When finished, be SURE to convert this document to a PDF file before uploading to the application site.