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In this Issue:

- Invite Your Members of Congress to a Science Briefing on Collections
 - Calling All Biologists: Showcase Science to Policymakers
 - Applications Being Accepted for the 2013 iDigBio Visiting Scholars Program
 - National Initiative Launched to Change the Way Biology Departments Approach Undergraduate Education
 - Reminder: NSC Alliance Board Meeting to Be Held in June
 - Video of Dual Use Research Workshop Now Online
 - Search for New President of Santa Barbara Museum of Natural History
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Policy News from NSC Alliance

Through the NSC Alliance partnership with the American Institute of Biological Sciences, we are pleased to provide NSC Alliance members with the following public policy update. If you have any questions or require additional information regarding any of the following items, please contact NSC Alliance director of public policy Dr. Robert Gropp at 202-628-1500 x 250 or at rgropp@aibs.org.

Invite Your Members of Congress to a Science Briefing on Collections

On 5 June 2012, the Natural Science Collections Alliance will host a science briefing for policymakers in Washington, DC. Natural science collections are research facilities and infrastructure that house irreplaceable specimens and data. This program, “Digitizing Science Collections: Unlocking Data for Research and Innovation,” will explore how new technologies and techniques make it possible to move this information from the shelves of a science collection to a computer in a research laboratory, classroom, or home. This briefing will explore how scientists and natural science collection managers are working to digitize the nation’s natural science collections to press forward the frontiers of research, spur new technology, and provide information to answer pressing societal problems.

Please take a few moments to send an invitation to your members of Congress to encourage them to attend this important science briefing. Take action at <http://capwiz.com/aibs/issues/alert/?alertid=61339071>.

Calling All Biologists: Showcase Science to Policymakers

This August, the NSC Alliance is sponsoring the *4th Annual Biological Sciences Congressional District Visits* event. This national initiative encourages members of the science community to meet with their elected officials. Unlike other efforts to educate members of Congress about the importance of scientific research and education programs, this event occurs across the country – not in Washington, DC.

As part of *Biological Sciences Congressional District Visits*, scientists and representatives of research facilities will meet with their members of Congress to describe how science is conducted and why a sustained investment in research and education programs must be a national priority. Participating scientists will meet with their elected officials at a district office or may invite them to visit a research laboratory, field site, or natural history collection.

Participants will receive information about federal funding for biological and environmental research, tools for improving their communication skills, and tips for conducting a successful meeting with an elected official. Participating scientists will receive guidance and some assistance with scheduling meetings.

Participation is free, but registration will close on 15 July 2012. For more information and to register, visit http://www.aibs.org/public-policy/congressional_district_visits.html.

Applications Being Accepted for the 2013 iDigBio Visiting Scholars Program

The NSF-funded *iDigBio* project is seeking applications for its 2013 Visiting Scholars Program. This program is directed towards early-career collections and informatics-based professionals with demonstrated interest in digitization, particularly those who broaden representation within this academic and professional community.

The *iDigBio* Visiting Scholars Program is envisioned to support short-term (typically 1 to 3 month) visits and residencies, e.g., junior faculty on sabbatical or during summer leave. Shorter or longer visits may also be considered for this program. Two types of proposals will be considered:

1. Proposals that are based at the *iDigBio* headquarters (HUB) at the University of Florida.
2. Proposals that are based another host (non-federal) institution in the U.S. and also include a short (i.e., ~1 to 2-week-long) to visit the HUB.

During the period of support, the *iDigBio* Visiting Scholar would be expected to work on a project and produce a deliverable that advances collections digitization efforts in research and/or education. As examples, this focused time might be used to (a) produce some tangible improvement or research project related to the host's collection digitization effort, (b) develop a collections digitization workshop for *iDigBio*, (c) develop an appropriate course (undergraduate, or graduate) in a relevant topic that could serve as a prototype for the HUB and TCNs (Thematic Collections Networks), or (d) develop an outreach project that communicates the importance of collections digitization to the public. Note that possibilities are not limited to the examples described.

This Visiting Scholars program includes a monthly stipend of \$7,500 (typically up to \$22,500) as well as some travel/relocation funds (up to \$2,500), as appropriate to the applicant's activity plan.

This program is open to U.S. citizens and permanent residents. The deadline for receipt of the 2013 application is 1 August 2012.

For submission details please visit *iDigBio*'s website: <https://www.idigbio.org/content/idigbio-2013-visiting-scholars-program>.

National Initiative Launched to Change the Way Biology Departments Approach Undergraduate Education

A new national initiative promises to improve college biology education by engaging faculty members in an effort to change how post-secondary life sciences departments approach education. PULSE, which stands for Partnership for Undergraduate Life Sciences Education, is a collaborative effort funded by the National Science Foundation (NSF), National Institutes of Health (NIH), and the Howard Hughes Medical Institute (HHMI). Program organizers also announced today that they are accepting applications from faculty members interested in becoming Vision and Change Leadership Fellows – individuals who will lead a national effort to stimulate systemic change in how post-secondary educational institutions approach biology education. The intent of the program is to develop a strategy to implement the findings from a 2011 report.

College students and faculty members have long argued that the approach to undergraduate education in the life sciences should be modernized to reflect what we now understand about how students learn. Twenty-first century science demands that students develop scientific and technical skills, and also the capacity to work beyond traditional academic boundaries. Undergraduate students, regardless of their major, deserve and need a life sciences education that helps them understand biology and how scientific research is conducted. Informed decision-making, whether managing one's health, deciding what food to eat, or understanding how individual actions influence the environment, requires an appreciation of the nature of science.

In 2006, the NSF initiated a multi-year conversation with the scientific community, with assistance from the American Association for the Advancement of Science. That dialogue, which was co-funded with the National Institutes of Health and the Howard Hughes Medical Institute, generated the 2011 report, *Vision and Change in Undergraduate Biology Education: A Call to Action*.

The scientific community actively informed the recommendations in the *Vision and Change* report. Among these were a recognition that a 21st century education requires changes to how biology is taught, how academic departments support faculty, and how curricular decisions are made.

“There is now broad consensus about the change that is needed,” said HHMI’s Cynthia Bauerle. The way biology is taught needs to change in order to “spark student interest in science and prepare them for the challenging scientific problems we face in the 21st century.”

Prior efforts to reform post-secondary life sciences education have focused on helping individual

faculty members improve their teaching methods. These initiatives have created points of excellence at institutions across the country, but have failed to produce the systemic change that is needed to fundamentally improve college-level biology education.

To foster this widespread change, the NSF, NIH, and HHMI have partnered to launch the PULSE program. Supporting the effort are Knowinnovation and the American Institute of Biological Sciences.

The PULSE initiative will facilitate the systemic change that was identified as a national priority in the *Vision and Change* report.

Clifton A. Poodry of the National Institute of General Medical Sciences, the division of NIH providing funding to PULSE, notes that NIH has a long-standing commitment to training the next generation. “We look forward to furthering this goal through our partnership with NSF and HHMI to implement recommendations of the *Vision and Change* report for improving undergraduate biology education,” said Poodry.

This year PULSE will select 40 Vision and Change Leadership Fellows. The selection process will identify individuals experienced in catalyzing undergraduate biology education reform at institutional, departmental, or divisional levels in the nation’s colleges and universities. The Fellows will represent research universities, regional or comprehensive universities, liberal arts colleges, and community colleges. The Fellows will be engaged in a yearlong effort to develop an implementation strategy for the *Vision and Change* report.

“What we are trying to achieve is systemic change, transformation of undergraduate biology education in this country,” stated Judith Verbeke of the NSF. This is why the PULSE effort is encouraging current or former biology department heads to apply. “The focus is intentional,” said Verbeke, “because it’s at the level of the department that so many decisions are made. We are looking to the department as the most appropriate unit to make real change.”

Ideal applicants will be aware of the history and discourse of reforming undergraduate life sciences education; have undergraduate teaching experience as well as experience mentoring, motivating and evaluating other faculty; and will have experience as current or former chairs or department heads. Applicants should be active in cultivating the mix of scholarship in teaching and life sciences research appropriate to their type of institution. Successful candidates will have a record of working collaboratively and creatively with individuals from different backgrounds.

It is through diversity of perspective that we achieve change, Bauerle said, “We seek not only those who are already members of the choir, but also committed life scientists and educators who question how best to proceed.”

Applications for the Vision and Change Leadership Fellows program will be accepted through July 9, 2012. Information about the PULSE program, including application guidelines, is available at www.pulsecommunity.org. The *Vision and Change* report is online at <http://visionandchange.org/finalreport>.

Reminder: NSC Alliance Board Meeting to Be Held in June

The NSC Alliance Board of Directors will meet in Washington, DC on 4 June 2012. The meeting will be held from 8:30 am to 5:00 pm at the American Institute of Biological Sciences Public Policy Office (1444 I Street, NW, Suite 200). McPherson Square Metro station is located ½ block away. Parking is available at several nearby garages.

Video of Dual Use Research Workshop Now Online

An archived video of the National Institutes for Health/National Science Advisory Board for Biosecurity December 2011 workshop is now available online. The workshop, “The Intersection of Science and Security: a Case Study Approach,” examined dual use research, life science research that has the potential to be misused to threaten public health or national security. The workshop included strategies for managing dual use research and case studies of how these issues are being addressed around the globe. Watch a video of the workshop at <http://oba.od.nih.gov/biosecurity/internationalwebcast.html#Dec2011>.

Search for New President of Santa Barbara Museum of Natural History

The Santa Barbara Museum of Natural History is seeking a new president to oversee the museum’s research, exhibits, and educational programs. A visionary leader is sought to implement the museum’s recently adopted Master Plan. For information about the museum, please visit www.SBNATURE.org. For detailed information about the position, and in strict confidence, contact Robert M. Fisher, Ph.D., RUSHER LOSCAVIO Executive Search, bfisher@rll.com.

The Natural Science Collections Alliance is a Washington, D.C.-based nonprofit association that serves as an advocate for natural science collections, the institutions that preserve them, and the research and education that extend from them for the benefit of science, society, and stewardship of the environment. NSC Alliance members are part of an international community of museums, botanical gardens, herbariums, universities, and other institutions that house natural science collections and utilize them in research, exhibitions, academic and informal science education, and outreach activities. Website: www.NSCAlliance.org.

Note: You are receiving a copy of this electronic report as part of your membership in the NSC Alliance. Contact the Alliance office with any email address or member representative name changes send an email to spotter@aibs.org.