



Science Policy News

Entomological Society of America Science Policy News

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ESA IN DC

ESA Submits Comments to OSTP on Agricultural Workforce

On July 20, the White House Office of Science and Technology Policy (OSTP) solicited comments from the research community on efforts to expand and diversify the agricultural workforce that will be required to meet challenges associated with global food security. Noting the continued issues related to pests and climate change, OSTP expressed concern over a projected agriculture workforce shortfall of 100,000 jobs over the next five years.

In response, ESA President May Berenbaum, on behalf of the Society, outlined several key ways that ESA promotes the training of entomologists to address these agriculture workforce needs. These methods include the Society’s efforts to foster science literacy in early education, the inclusion of students at all levels of ESA’s governance structure, and the development of programs like ESA’s Science Policy Fellowship.

Sources and Additional Information:

- The White House OSTP Solicitation can be found at <https://www.whitehouse.gov/blog/2016/07/20/agricultural-workforce-21st-century>.

- ESA's response to OSTP can be found at <http://www.entsoc.org/sites/default/files/files/OSTP%20Workforce%20Comments-ESA-final.pdf>.
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CONGRESSIONAL UPDATES AND NEWS

What to Expect During September Session

As Congress returns from their annual August recess, there are a number of “must-do” items that will make for a very busy September before Congress adjourns for a six-week campaign season recess starting October 1. With the end of the fiscal year fast approaching (September 30), Congress must pass a funding measure to avoid a government shutdown. It is expected that Congress will opt to pass a short term continuing resolution (CR) to fund the government at current levels at least until after the election in November, when there will be more certainty about which party will control the White House, the Senate, and the House of Representatives for the next several. Additionally, several other issues will likely complicate the CR debate, including allocating additional funds to address Zika, emergency funding to aid Louisiana after the recent floods, and other unrelated policy issues.

FEDERAL AGENCY AND ADMINISTRATION UPDATES AND NEWS

National Academies Publishes “Gene Drives on the Horizon” Report

Earlier this month the National Academies of Sciences, Medicine, and Engineering published *Gene Drives on the Horizon*, an extensive report evaluating the progress, potential issues, and viability developing gene drive technologies. Having gained significant visibility in the wake of the recent Zika virus outbreak, questions have arisen regarding the potential consequences of genetic modification, the effectiveness of this modification in mitigating the spread of disease, and the scale to which such a method could be implemented. The report specifically notes the potential for *Wolbachia* and the technologies developed by Oxitec to create resistance to diseases like dengue and the Zika virus, as well as sterility in the *Aedes aegypti* and the *Aedes albopictus* species.

The report explores the potential benefits of this technology to agriculture, innovation, and public health, as well as the potential detriments: a mosquito modified to be resistant to one virus may become susceptible to another; potential mutations in the virus could pose alternate human health risks; and the potential unintended environmental ramifications of altering or suppressing a certain species. The report suggests that scientists will continue to expand and develop CRISPR/Cas9 technologies but that “there is insufficient evidence available at this time to support the release of gene-drive modified organisms into the environment.”

Sources and Additional Information:

- The full *Gene Drives on the Horizon* report is available at http://www.nap.edu/catalog/23405/gene-drives-on-the-horizon-advancing-science-navigating-uncertainty-and?utm_source=NAP+Newsletter&utm_campaign=6f23644044-NAP_mail_new_2016_08_02&utm_medium=email&utm_term=0_96101de015-6f23644044-103930525&goal=0_96101de015-6f23644044-103930525&mc_cid=6f23644044&mc_eid=576b157eaa.
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HHS Allocates Additional \$81 Million to Fight Zika

On August 11, the Department of Health and Human Services (HHS) Secretary Sylvia Burwell sent a letter to Members of Congress informing them that an additional \$81 million from within HHS is being reallocated to continue the fight against the Zika virus. Burwell notes that the ongoing fight against Zika has “taken on an added urgency” following reports of the first case of local transmission in Florida earlier this summer. The redistribution, which will take funds away from competing priorities, will allocate \$34 million to the National Institutes of Health (NIH) and \$47 million to the Biomedical Advanced Research and Development Authority (BARDA). Congress failed to pass any funding measures before leaving for summer recess and as a consequence, the \$589 million, which was reallocated earlier this year from previous Ebola emergency funding, is expected to run out by the end of August.

Anthony Fauci, M.D., Director of the National Institute of Allergy and Infectious Diseases (NIAID) at NIH explained in a press briefing that there have been at least 22 cases of local transmission in Florida, a number that will only rise if immediate action is not taken. It is anticipated that NIH and others will need at least \$196 million more just to get to the first round of testing a vaccine against Zika in a large population this upcoming winter. A phase one trial, discussed below, is currently underway.

Sources and Additional Information:

- The letter to members of Congress from Sylvia Burwell is available at <http://democraticleader.house.gov/wp-content/uploads/2016/08/20160811-Pelosi-Letter.pdf>.
 - Information on Dr. Fauci’s press briefing is available at <http://www.reuters.com/article/us-health-zika-vaccines-idUSKCN10M20K>.
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NIH Begins Testing Investigational Zika Vaccine in Humans

In early August, the National Institute of Allergy and Infectious Disease (NIAID) of the National Institutes of Health (NIH) announced that they have begun a phase one clinical trial for a vaccine to prevent the transmission of the Zika virus. Eighty participants have volunteered for the first phase of trials. Anthony Fauci, M.D., Director of NIAID, said that current progress in the vaccination study is very encouraging, “NIAID worked expeditiously to ready a vaccine candidate, and results in animal testing have been very encouraging. We are pleased that we are now able to proceed with this initial study in people. Although it will take some time before a

vaccine against Zika is commercially available, the launch of this study is an important step forward.” Pending the results of observations for the safety and efficacy of the vaccine, a phase two trial will begin in January of 2017 in Zika-endemic countries.

Sources and Additional Information:

- The NIH press release on the vaccine is available at <https://www.niaid.nih.gov/news/newsreleases/2016/Pages/Zika-Investigational-Vaccine.aspx>.
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NSF Presents Ten Big Ideas for Future Investment

Earlier this month, the National Science Foundation (NSF) presented to the National Science Board (NSB) ten “big ideas” for future investment. These are priority research ideas, developed by NSF Director France Córdova, to demonstrate NSF’s relevance to national scientific and technological objectives. Although NSF already supports a broad portfolio of research, the goals were selected in part for the unique role NSF plays in the advancement of these fields. In practice, this is a strategic messaging exercise for Capitol Hill lawmakers and the Executive Branch – a proactive approach to communicate the importance of NSF research and investments. With the upcoming 2016 election, and several Assistant Director leadership changes at NSF, these research priorities will provide a blueprint for both the agency’s federal advocacy and research planning moving forward. The ten areas are: NSF INCLUDES: Enhancing Science and Engineering through Diversity; NSF 2050: The Integrative Foundational Fund; Understanding the Rules of Life: Predicting Phenotype; Work at the Human-Technology Frontier: Shaping the Future; Mid-scale Research Infrastructure; Windows on the Universe: The Era of Multi-messenger Astrophysics; Navigating the New Arctic; Harnessing Data for 21st Century Science and Engineering; The Quantum Leap: Leading the Next Quantum Revolution; and Growing Convergent Research at NSF.

Sources and Additional Information:

- More information about the NSF Big Ideas for Future Investment is available at https://www.nsf.gov/about/congress/reports/nsf_big_ideas.pdf?dm_i=1ZJN,4FGWL,E29O0Q,GB891,1.
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CDC Forecasts RFA for Vector-Borne Diseases Regional Centers for Excellence

The Centers for Disease Control and Prevention (CDC) forecasted a new opportunity earlier this month: Vector-Borne Diseases Regional Center for Excellence. The full opportunity will be posted with details on September 12. The estimated due date for applications is October 13, about one month after the opportunity is released.

According to the forecast announcement, the aim of the grant is to: “(1) build effective collaboration between academic communities and public health organizations at federal, state,

and local levels for surveillance, prevention, and response; (2) train public health entomologists in the knowledge and skills required to address vector-borne disease concerns; and (3) conduct applied research to develop and validate effective prevention and control tools and methods and to anticipate and respond to disease outbreaks.”

This is a new competition, and regional centers of excellence in this area do not currently exist. Additionally, there will likely only be one proposal allowed per institution. While specific details on the RFA are scant, note that from the CDC’s FY 2017 Budget Justification, the Vector-Borne Disease priorities are: Chikungunya virus, Zika virus, Dengue, West Nile virus, Lyme disease, and newly discovered pathogens. Five awards are expected to be given.

Sources and Additional Information:

- Additional details and the full forecast document are available at <http://www.grants.gov/search-grants.html?fundingCategories%3DHL%7CHealth>.
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