

IOS - 1238831 IOS BP: APS IOSP Fellows - Broadening Participation Through Research Experiences and Professional Socialization Matyas, Marsha L. American Physiological Society

\$535,000, 5 years

The American Physiological Society (APS) will address critical needs for increased diversity among physiologists conducting integrative organismal systems (IOS) biology research by building an annual cohort of underrepresented (UR) undergraduate students engaged in IOS research working with members of APS' Comparative and Evolutionary Physiology Section (CEPS).

APS will build on the strengths of its existing programs to create long-term solutions to specific needs for increasing diversity in the IOS field. The APS IOSP Fellows will conduct research during the summer, present at APS conferences, gain skills through online professional development activities, and become proponents for IOS research via APS' social media outlets and Physiology Understanding Week. APS expects IOSP Fellows to become active participants in the IOS professional community and will evaluate both short- and long-term impacts of the Fellowship. The project will increase the number of UR students participating in IOS-related research; develop a professional network of support among UR students and researchers; and increase understanding of, and interest in IOS careers among the target group of students. APS will also create a resource collection on supporting students with disabilities in the research lab. The collection will be freely available via APS' NSDL digital library, the Archive of Teaching Resources (www.apsarchive.org).

With diversity as a national imperative in STEM fields, this project will create and evaluate resources to improve research hosts' skills in working with UR students from broad backgrounds and with diverse needs and resources for engaging UR undergraduates in research experiences, in professional socialization activities, and as advocates for science to the general public. This will provide a model for other scientific societies in identifying and addressing specific needs in their ongoing diversity efforts, which will be shared with the community at the PI meeting.

IOS - 1239422 IOS Broadening Participation: Choose Development Unguez, Graciela Society For Developmental Biol

\$235,000, 3 years

Built upon a culture of inclusiveness, Choose Development is a three-year project through which the Society for Developmental Biology (SDB) aims to augment the diversity of undergraduate students that enter doctoral (PhD) programs in their pursuit of research careers in fields related to developmental biology. This pioneering program emphasizes professional development and research training under long-term and continuing supervision by expert developmental biology research faculty. Undergraduates with disabilities and those belonging to under-represented minority (URM) groups will be selected from a national applicant pool and matched to research laboratories with trained faculty mentors committed to enhancing their preparation to enter graduate programs. Students will be recognized as an elite group of SDB Fellows who will spend two summers (and possibly an academic year as well) carrying out independent research in the mentor's laboratory. The Society will ensure dissemination of their research accomplishments through the students' participation in SDB regional and/or national meetings, complemented by strong support and encouragement from members of this scientific community. It is expected that most, if not all of these SDB Fellows will choose and be accepted into graduate programs on developmental biology or related areas. This project will have important implications toward enhancing training strategies that aim to diversify the population of investigators in the discipline of developmental biology, as well as that of our future scientific workforce to coincide with the expected demographic changes in the United States. SDB will also develop and implement resources to assist other scientific and disciplinary societies that plan to adopt similar approaches

**IOS -
1249925**

**IOS BP: Integrating and Leveraging IOS
Networks to Facilitate the Development of
URM in IOS Career Paths**

**Crowe,
Mary**

Council on Undergraduate Research

\$533,918, 5 years

National efforts to boost minority participation in the STEM disciplines have resulted in modest increases in doctoral recipients in science and engineering and national reports continue to highlight the urgency to increase the numbers of underrepresented minorities in scientific fields. This project will link the resources of three professional societies to develop innovative initiatives that will address the recruitment of undergraduate students from under-represented groups into graduate programs in integrative biological organismal fields and focus on the retention of graduate students and post-doctoral researchers from under-represented groups in integrative biological organismal fields. The initiatives concentrate on key transitions of the educational pathway, advanced undergraduates, early graduate students (within the first two years of graduate school), and the progression of post-doctoral researchers into faculty careers. This approach is innovative in that it addresses the URM individuals in biology across the entire educational pathway rather than treating each stage and transition in isolation. The three societies involved in this project are the Council on Undergraduate Research (CUR), the Leadership Alliance Program (TLA), and the American Physiological Society (APS). Over 1,000 individuals from under-represented groups will be directly impacted by the activities of this grant. More than 300 individuals from non-minority groups will also benefit from the activities in this project. Most importantly, a supportive community of faculty, administrators and staff committed to broadening participation in integrative biological will be developed.

The amounts listed below were set aside in the DD Reserve to fund BP activities.

FY2014	\$200,000
FY2013	\$300,000
FY2012	\$1,525,000

There were no set asides prior to 2012.

**BIO Broadening Participation Task Team
Integrative Organismal Systems (IOS) Division Summary**

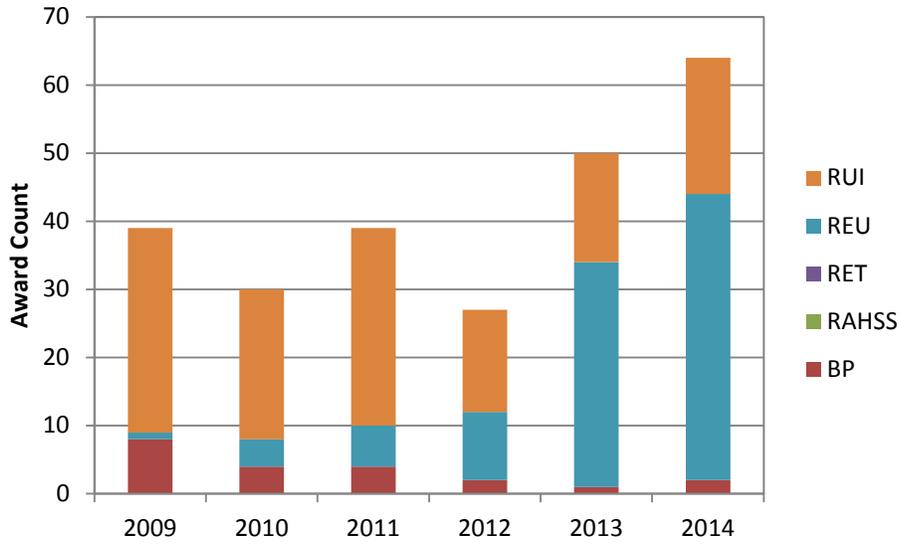


Figure 1. New BP awards made per fiscal year (count).

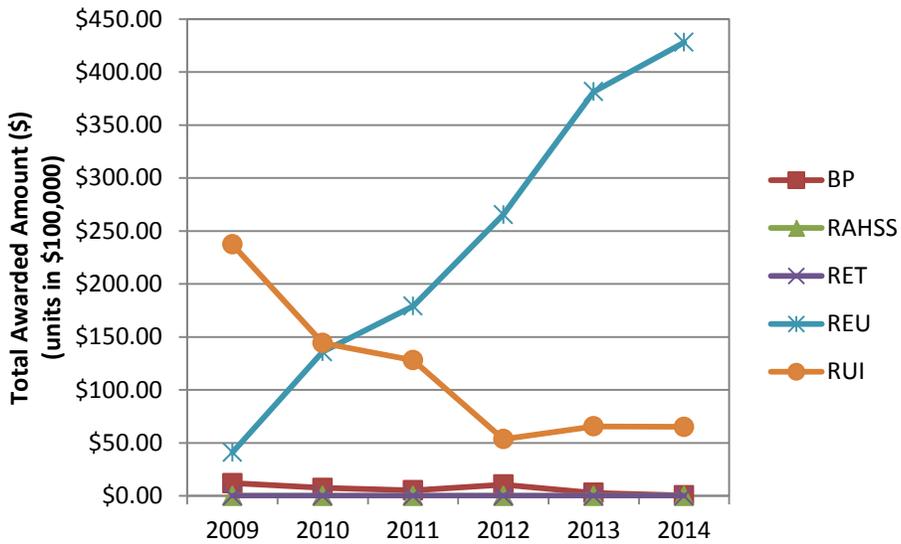


Figure 2. New BP awards made per fiscal year (total awarded amount).

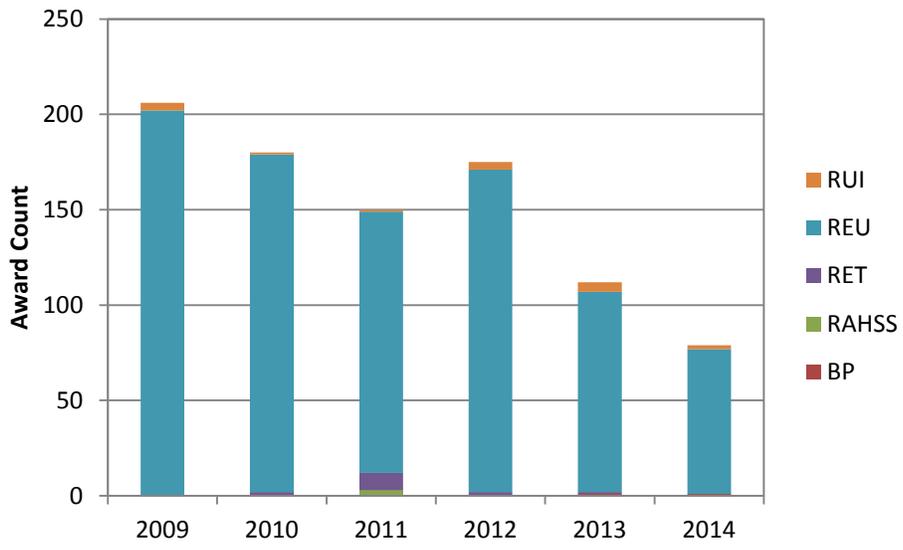


Figure 3. New BP supplements made per fiscal year (count).

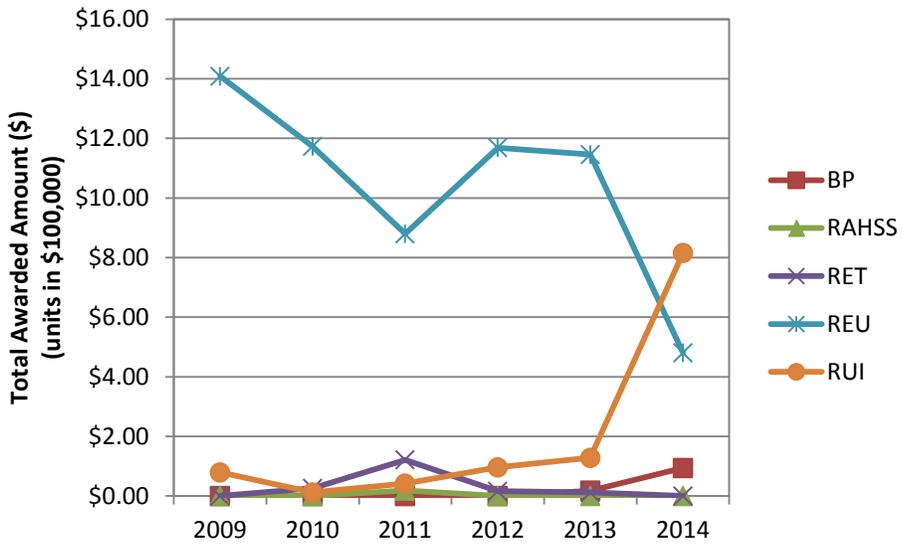


Figure 4. New BP supplements made per fiscal year (total awarded amount).

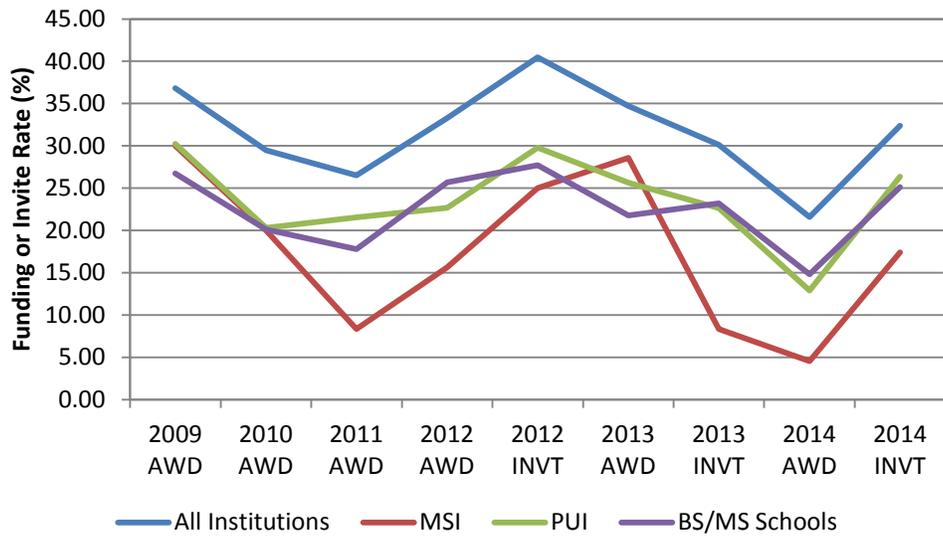


Figure 5. Funding/invite rate for institutions submitting proposals to IOS.

