May 12, 2016

James Olds, PhD
Assistant Director for Biological Sciences
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230

Muriel Poston, PhD, JD
Director of the Division of Biological Infrastructure
National Science Foundation
4201 Wilson Boulevard
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Dear Drs. Olds and Poston:

The Federation of American Societies for Experimental Biology (FASEB) submits the following comments in support of the Instrumentation Development for Biological Research (IDBR) program, which was recently placed on hiatus for evaluation. FASEB comprises 30 scientific societies, collectively representing 125,000 life science researchers, many of whom are supported by the National Science Foundation’s (NSF’s) Biological Sciences (BIO) Directorate. FASEB appreciates the utility of programmatic evaluations to optimize research programs and support, and we hope the following comments will help inform the assessment of IDBR.

FASEB commends the NSF BIO Directorate and its Division of Biological Infrastructure for their long-standing support of instrumentation development and strongly encourages sustained funding for programs such as IDBR. Scientific progress and instrumentation development have a synergistic relationship; thus, support for IDBR projects is essential to NSF’s mission to fund cutting-edge research. Representing a broad range of disciplines and experimental models, life sciences research has diverse instrumentation and equipment needs. Recent IDBR awards illustrate this breadth, including projects to assess the epigenome of single cells, measure the intracellular movement of molecules over a several hour period, and develop high-throughput phenotyping platforms for plants. As biological research becomes increasingly interdisciplinary, FASEB anticipates that the need for programs devoted to instrumentation will continue to expand.

The IDBR program serves an important niche within the life sciences community and no existing program at NSF or any other federal agency could fully replace it. Projects relevant to major BIO programmatic areas, such as development of sensors that could be deployed at National Ecological Observatory Network (NEON) sites or tools for conservation research, likely will face greater difficulty securing funding from other sponsors. Currently, the IDBR program funds most of the NSF instrumentation development grants in the biosciences. Application limits on the Major Research Instrumentation (MRI) program will not allow it to accommodate the IDBR applicant pool without significantly altering the composition of proposals received. For some projects of value to the research community, opportunities for industry collaboration may be lacking, especially if the potential market share is small or projected revenues are similarly limited.
FASEB encourages NSF to consider these points and maintain its historical commitment to supporting instrumentation development in the biological sciences when reviewing the IDBR program. We also support the recommendation made during the recent meeting of the BIO Advisory Committee for NSF to provide a readily accessible list of IDBR-supported projects to increase awareness of this program’s offerings. Please do not hesitate to contact me if FASEB can be of assistance in this evaluation process.

Sincerely,

[Signature]

Hudson H. Freeze, PhD
FASEB President-Elect

CC: Christopher Sanford and Robert D. Fleischmann