



# FASEB

Federation of American Societies  
for Experimental Biology

## Representing 125,000 Researchers

301.634.7000  
www.faseb.org

9650 Rockville Pike  
Bethesda, MD 20814

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  
Arlington, VA 22230

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.

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The American Physiological Society • American Society for Biochemistry and Molecular Biology • American Society for Pharmacology and Experimental Therapeutics  
American Society for Investigative Pathology • American Society for Nutrition • The American Association of Immunologists • American Association of Anatomists  
The Protein Society • Society for Developmental Biology • American Peptide Society • Association of Biomolecular Resource Facilities  
The American Society for Bone and Mineral Research • American Society for Clinical Investigation • Society for the Study of Reproduction • The Teratology Society  
The Endocrine Society • The American Society of Human Genetics • International Society for Computational Biology • American College of Sports Medicine  
Biomedical Engineering Society • Genetics Society of America • American Federation for Medical Research • The Histochemical Society • Society for Pediatric Research  
Society for Glycobiology • Association for Molecular Pathology • Society for Redox Biology and Medicine • Society For Experimental Biology and Medicine  
American Aging Association (AGE) • U.S. Human Proteome Organization (US HUPO)

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,

A handwritten signature in black ink, appearing to read "Hudson H. Freeze". The signature is fluid and cursive, with the first name "Hudson" being the most prominent part.

Hudson H. Freeze, PhD  
FASEB President-Elect

CC: Christopher Sanford and Robert D. Fleischmann