



A M E R I C A N I N S T I T U T E O F B I O L O G I C A L S C I E N C E S

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**Executive Director**  
Richard T. O'Grady, Ph.D.

May 28, 2008

American Academy of Arts and Sciences  
136 Irving Street  
Cambridge, MA 02138-1966

**Re: Advancing Research In Science and Engineering (ARISE)**

Thank you for the opportunity to review a final draft of the American Academy of Arts and Sciences (AAAS) White Paper, *Advancing Research In Science and Engineering* (ARISE). The report is timely and proposes several significant ideas and recommendations worthy of due consideration by policymakers, research administrators, and scientists.

The recommendations for creating new mechanisms to support early career researchers are timely, particularly for basic biological scientists. It is particularly encouraging to see discussion of the need to create mechanisms to support the career development of researchers that are also primary caregivers.

Although ARISE appropriately points to the challenges facing early career medical scientists funded by the National Institutes of Health (NIH), the report missed the opportunity to highlight the stark funding environment for basic biological scientists funded by agencies such as the National Science Foundation (NSF). Indeed, roughly 67 percent of our nation's fundamental biological (i.e. basic biological and environmental biology) research is funded by NSF's Biological Sciences Directorate (Gropp and Lynn, *AAAS Report XXXIII: Research and Development FY 2009*, page 183). Although ARISE recognizes the low success rate for grant applicants seeking NSF funding, the success rate for all biological scientists seeking BIO grants has been lower than the agency-wide average for the past twelve years (see figure on Page 3 of this letter). In 2008, the research grant funding rate was only 15 percent compared to an agency-wide rate of 21 percent.

ARISE appropriately recognizes that innovative funding models to deliver support to early career researchers is required, but it is equally important that adequate overall investments be made in federal research agencies such that appropriate funding is available to support transformative research proposals submitted by early, mid, and senior career investigators.

ARISE includes an intriguing call for universities to pay a larger percentage of faculty salaries and to increase the university-level investment in new and existing infrastructure. These are substantial recommendations worthy of serious thought. Although increasing the financial commitments of universities may increase the amount of resources funding agencies have available to make additional awards, it is also possible that a mandated requirement on institutions could have an unintended consequence of limiting the ability of researchers from smaller researcher institutions from competing for grants. Smaller academic and non-profit research institutions may not have the financial resources necessary to cover substantial portions of an investigators salary. Care must be taken in formulating new

policy concerning the financing of research infrastructure to assure that new funding models do not force smaller research institutions to jettison valuable scientific resources for purely budgetary reasons. This again, could result in a consolidation of resources at the nation's largest universities and research centers, further hindering the ability of early career scholars at smaller institutions to compete for research funding.

ARISE is a timely document worthy of thorough consideration. The American Institute of Biological Sciences looks forward to participating in future discussions of the ideas and recommendations included in this paper. Please do not hesitate to contact me or Dr. Robert Gropp, AIBS Director of Public Policy, at 202-628-1500 if we may be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "R. O'Grady". The signature is fluid and cursive, with a large initial "R" and "O'".

Richard T. O'Grady, Ph.D.  
Executive Director

RTO:reg

*National Science Foundation: Grant applicant success rate and histogram of BIO Directorate funding in real dollars since 2001.*

