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Quality Life Through Research

Federation of American Societies for Experimental Biology

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Representing over 100,000 biological and biomedical researchers.

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March 4, 2011

Roger Chalkley, DPhil
Senior Associate Dean of Biomedical Research Education & Training
Vanderbilt University School of Medicine
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Dear Dr. Chalkley:

On behalf of the Federation of American Societies for Experimental Biology (FASEB) and its 23 member societies, I would like to thank you and your colleagues on the National Research Council (NRC) Committee to Study the National Needs for Biomedical, Behavioral, and Clinical Research Personnel for a thoughtful analysis of U.S. research training and workforce needs. FASEB commends the committee for its broad and comprehensive approach to this important issue, and particularly for considering research training mechanisms beyond the National Institutes of Health (NIH) National Research Service Award (NRSA) in its analysis.

FASEB concurs with many of the report's recommendations. We must increase stipends for graduate students and postdoctoral researchers, provide employment benefits to postdocs supported on training grants and fellowships, collect reliable data on training program activities and outcomes, improve the quality of training for individuals supported on research grants, and adopt broader criteria for successful training grant outcomes. FASEB is not, however, in favor of lifting the indirect cost cap on NIH training and career development awards, as this change would have unintended negative consequences for the research enterprise.

Below we offer more detailed comments on many of the recommendations made in the report.

Recommendation 2-1. *NIH should reinstitute its 2001 commitment to increase stipends at the predoctoral and postdoctoral levels for NRSA trainees. This should be done by budgeting regular, annual increases in postdoctoral stipends until the $45,000 level is reached for first-year appointments, and stipends should increase at the cost of living thereafter. Predoctoral stipends should also be increased at the same proportional rate as postdoctoral stipends and revert to cost-of-living increases once the comparison postdoctoral level reaches$45,000.*

FASEB agrees that NIH should reinstitute its 2001 commitment to increase

graduate and postdoctoral stipends. Last year, we wrote to NIH Director Dr. Francis Collins urging that stipends for entry-level NRSA postdocs (level 0) be raised to $43,000, a figure which, at the time, reflected the approximate level at which the level 0 stipend would be set had it been adjusted annually for cost-of-living since the inception of the NRSA program. We also recommended providing postdocs with annual cost-of-living increases after the $43,000 mark is reached. Increasing the NRSA stipend for postdocs will ensure that biomedical research continues to be an attractive career path for talented, early career scientists who have a vast array of attractive career options available to them. This is especially true for research trainees with MD degrees for whom there are significant disparities between the compensation they receive as research fellows in the NRSA program and what they would receive if they were to enter into medical practice. FASEB did not take a position on NRSA stipend levels for graduate students in its 2010 letter to NIH. Identifying an appropriate level of support is complicated by the provision of tuition waivers, the value of which varies across institutions. Nonetheless, we are supportive of increasing compensation for graduate students so as to ensure an ample supply of qualified PhD-level investigators in the biomedical sciences.

Many institutions benchmark pay for trainees supported on research grants to the NRSA stipend level, though parity in compensation between the two groups is not guaranteed. There is, however, no mechanism to allow investigators to budget for increased pay for these researchers when NRSA stipends are raised. FASEB encourages NIH to develop a mechanism—separate from those intended to supplement research costs—by which investigators could request supplemental funding to increase compensation for trainees supported on research grants if NRSA stipends are raised beyond the cost-of-living. Developing such a mechanism would be a step toward ensuring that these trainees receive fair compensation, encourage parity in postdoctoral salaries within institutions, and allow investigators to absorb additional training costs without drawing on funds budgeted for other research resources.

FASEB also shares the committee's concern about the lack of parity in benefits between postdocs supported on training grants and fellowships and those supported on research grants. We encourage training institutions and NIH to work toward solutions wherein postdocs supported through the NRSA program would be eligible for the same institutional employment benefits provided to R01 trainees.

Recommendation 2-2. *NIH should consider an increase in the indirect cost rate on NRSA training grants and K awards from 8 percent to the negotiated rate currently applied to research grants. The increase in the rate could be phased in over time.*

FASEB disagrees with raising the indirect cost rate on NRSA training grants and K awards to match the rate currently applied to research grants. The lower rate is consistent with the training and educational mission of both of these mechanisms. Moreover, applying the research grant rate to NRSA and K awards would significantly increase the cost of these programs at time of diminishing federal funding for research. To accommodate the additional cost, NIH would either have to scale these mechanisms back—an option that is inconsistent with the committee's recommendation to maintain the NRSA program at the 2008 level at least—or draw funds from another part of the NIH budget, a move that could result in diminished funding for NIH research grants. It is regrettable that there may be insufficient resources to support all of the administrative costs associated with the NRSA and K programs. The solution is not, however, to reduce the size of those programs or funding available to researchers.

Recommendation 2-3. *All graduate students and postdoctoral fellows who are supported by the NIH on Research Program Grants (RPGs) should be required to incorporate certain additional "training grant–like" components into their regular academic training program. These should include RCR training, exposure to quantitative biology, and career guidance and advising.*

FASEB shares the committee's view that graduate students and postdocs supported by NIH on research grants—which comprise the majority of NIH research trainees—should have access to curricular and educational practices to which NRSA trainees are exposed. To encourage this, FASEB recommends that NIH research grant recipients develop a plan for training and mentoring the graduate students and postdocs supported on their grants. Investigators should not, however, be required to include these plans as part of their research grant applications or otherwise submit them to NIH. Rather, training plans should be filed with and evaluated by the investigator's institution, which would, through its office of sponsored research or other appropriate entity, review and evaluate the plan based on established *institutional* guidelines. Institutions could, if necessary, provide an assurance to NIH that they have a policy in place for ensuring that investigators have developed a plan. In addition to assuming the responsibility of evaluating training plans, institutions should have the responsibility for determining what information should be included in them. Ideally, these plans would address how trainees will acquire the scientific knowledge and technical skills relevant to their disciplines, as well as training in leadership, management, communication, professional conduct, and responsible conduct of research. These are educational activities and, as such, are the responsibility of the training institution. Investigators' plans should be consistent with their institutions' training guidelines and the resources and opportunities available to them, and they should minimize the addition of administrative requirements associated with their NIH research grants.

Recommendation 2-6. *The NIH should collect reliable data on all of the educational components that it supports in such a manner that this information can be stored in an easily accessible database format. Such data might consist of important components of the training grant tables, as well as retention and subsequent outcomes.*

Recommendation 2-7. *The committee recommends that the data tables be reviewed and a determination made, in consultation with the awardee community, as to which are really essential for reviewing the proposal and which should be incorporated into the databases.*

Recommendation 2-8. *A training evaluation questionnaire should be created so that all participants in the full range of NIH-funded training vehicles can provide a confidential, unbiased evaluation of the program in which they were trained. The intent of this recommendation is not to provide additional information for the competitive renewal of a particular program, but rather to allow the NIH to evaluate the merit of all of its training approaches broadly.*

The following comment relates to recommendations 2-6, 2-7, and 2-8. FASEB agrees that NIH should collect reliable data on NRSA training programs and develop instruments by which trainees can evaluate the programs through which they were trained. To ensure that this information is useful to both NIH and program administrators, we recommend that NIH consult with the research and training communities to gather input on which data would be useful to collect and to share the outcomes of any evaluations with these communities so that these data can be used to design maximally effective programming. We agree with the NRC committee that trainee evaluations should not be used as a basis on which to judge the merit of individual NRSA fellowship, training grant, or research grant applications. We do, however, encourage NIH and institutions to use these data to improve training programs overall. We also strongly encourage NIH to ensure that any data collection and evaluation activities are pursued in a manner that places the least possible administrative burden on trainees, investigators, and institutions.

Recommendation 3-2. *Peer reviewers, in evaluating training grant applications, especially competing renewals, should be instructed to broaden their conception of "successful" training outcomes to recognize nontraditional outcomes that meet important national priorities and needs in the biomedical, behavioral, and clinical sciences.*

FASEB agrees that the definition of successful training outcomes should be broadened. While many NIH-funded trainees will go on to become NIH-funded independent investigators, there are many other valuable ways to contribute to society, including through research positions in the for-profit, not-for-profit, and public sectors; careers in science education and training, particularly at the undergraduate, graduate, and postdoctoral levels; and science-related careers for which research training makes one especially qualified, such as in research administration, science communication and outreach, and patent law. Although preparation for non-research careers may not be the primary goal of NIH training programs, these activities are integral to the overall success of the enterprise.

Recommendation 3-7. *All institutes should be encouraged to make F30 fellowships accessible to qualified M.D./Ph.D. students.*

The National Research Service Award for Individual Predoctoral MD/PhD and Other Dual Doctoral Degree Fellows (F30) is an important mechanism for training physician scientists. Only a minority of NIH institutes and centers (ICs) offer the F30 award, however. FASEB encourages all NIH ICs to make F30s available to predoctoral MD/PhD trainees so as to encourage the training of physician-scientists across the full spectrum of biomedical research.

Recommendation 5-2. *The NIH, in consultation with academic medical leadership, should identify better training mechanisms for attracting medical students into translational and clinical research and should fund pilot programs designed to implement promising new approaches to accomplishing that objective.*

FASEB agrees that NIH and training institutions should identify ways to attract medical students into clinical and translational research, and we support the development of pilot programs to meet that goal.

On behalf of FASEB's 23 scientific societies and their more than 100,000 members, I congratulate you on the release of this important report and thank you for considering our comments. Please do not hesitate to contact me if I can provide you with any additional information.

Sincerely,

William T. Talman, MD
FASEB President

cc:
Francis Collins, MD, PhD, Director, National Institutes of Health
Rodney Ulane, PhD, NIH Research Training Officer, National Institutes of Health
Shirley Tilghman, PhD, President, Princeton University
James Voytuk, PhD, Study Director and Senior Program Officer, Board on Higher Education and Workforce, The National Academies