National Postdoctoral Association (NPA) Response to the NIH RFI: Inviting Comments and Suggestions on the Implementation of the Recommendations of the Advisory Committee to the NIH Director Working Group on the Biomedical Research Workforce (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-13-045.html)

The National Postdoctoral Association (NPA) respectfully submits the following comments and suggestions regarding the implementation of the recommendations of the Advisory Committee to the NIH Director (ACD) Working Group on the Biomedical Research Workforce.

> I. *Developing Individual Development Plans (IDPs) for those in graduate and postdoctoral training supported by NIH funds from any source. NIH is seeking input about how institutions could include IDPs in their policies and procedures to help tailor the training experiences for each student and postdoc. Also of interest are methods by which institutions would indicate adherence to these practices to NIH.*

The NPA supports this recommendation [1] and has long recognized the value of the IDP as a useful mentoring tool, particularly: (a) in facilitating the development of short-term and long-term performance and career/professional development goals and (b) in providing a basis for annual performance reviews. The results of a pilot survey of institutions conducted by the NPA in 2011 suggests that a substantial number of institutions already require or encourage the use of an IDP, as well as annual performance reviews for postdoctoral scholars [2].

There are two widely used tools that would facilitate the implementation of this recommendation at institutions: the *Science* Careers online tool, *myIDP*, and the Federation of American Societies for Experimental Biology (FASEB) IDP toolkit. The NPA Core Competencies [3] serve as a complimentary tool that assists postdocs and PIs in identifying needed professional development. Additionally, many institutions have customized and expanded this process for their postdoctoral workforce. For example, please see the University of Pittsburgh School of the Health Sciences Career Development Plan [4]. The NPA does not believe that the NIH should mandate the specific use of any one tool but rather identify the desired elements of an IDP.

Wording this recommendation explicitly as a requirement would ensure that the implementation of the IDP occurs. Given that the IDP is already in use at leading research institutions and that tools are readily available, the NPA does not believe that the implementation of this recommendation should be onerous for the majority of institutions.

Regarding adherence to an IDP policy, the NIH could require institutions to keep completed IDPs on file, much as they keep their employees' performance reviews on file. As part of the

requirements by the institutions for grant submissions, such as evidence of lab safety protocols and current approved IACUC protocols, evidence of an institutional IDP program could be included.

We believe, however, that the research community would be served best by the broader requirement of a **mentoring plan**. Certainly, an important element of such a plan could be the IDP, and NIH guidelines could emphasize this. **The NPA believes that mentoring plans for graduate student and postdocs should be required as part of an application for any grant that supports graduate students or postdocs** and that reporting on the implementation of these plans should be included in the **annual progress report** for any NIH grant that supports graduate students or postdocs.

The requirement of a mentoring plan would provide a more comprehensive framework that might include, in addition to the IDP, attendance at professional development workshops, developing a mentoring network, or the use of peer mentoring. Requiring a mentoring plan might provide incentive for institutions to open their doors more widely to postdocs and allow postdocs to take advantage of resources not usually offered to them that could promote their professional and career development (e.g., career services). In addition, the NPA would strongly recommend an **evaluation process** for the mentoring plans, and the NIH would need to provide guidelines to grant reviewers.

> II.   *Providing more uniform benefit packages for postdoctorates, which might include health insurance, contributions to a retirement plan, sick leave, etc.   Information about the benefits currently provided to postdoctorates supported through NIH research grants, as well as those supported by NIH training grants and fellowships, would be useful in formulating implementation strategies for this recommendation.*

Based on the NPA's interactions with postdocs, this recommendation could have the most significant impact in terms of career-path satisfaction and retention of the best and brightest in the U.S. research workforce. In particular, the NPA has recommended the implementation of family-friendly benefits for all postdocs, who are often at the life stage of family formation and yet typically have only limited access to such benefits, like paid maternity/paternity leave [5].

The successful implementation of this recommendation will greatly depend on the appropriate revision of current NIH policies regarding benefits on training grants. **At the minimum, the NIH should require that institutions provide quality health insurance to postdocs funded on training grants and seek ways to provide sufficient funding to assist them in doing so.**

The classification of "trainee" means that the postdocs are not considered employees and thus often have to pay income tax on the value of any premiums provided by the institution, depending upon the institution's interpretation of the U.S. tax code. This tax then reduces an already low net income. Ideally, the NIH should work with the Office of Management and Budget and the Internal Revenue Service to make insurance premiums paid on behalf of research trainees tax-exempt.

The NPA believes that more data regarding benefits is required in order to implement this recommendation successfully. **We are in the testing phase of our new institutional policy database, which includes several questions about benefits.** These questions may provide some

guidance to the information that the NIH needs to collect. The data, which should be available by the end of June 2013, should also provide information for formulating implementation strategies for this recommendation.

> III. *Reporting by institutions of aggregate career outcomes of graduate students and postdoctorates on a public web site. Institutions have a number of ways of communicating the success of their programs. NIH is interested in assessing the willingness of institutions to participate in this effort and hearing strategies that would facilitate some standardization of this approach. The goals of these strategies would be to ensure that career outcomes are noted for all trainees, so that individuals contemplating biomedical research training and selecting a training institution would have access to current information about the career outcomes of students and postdoctorates from those institutions.*

NPA representatives regularly talk to graduate students as well as postdoctoral researchers regarding the benefits and challenges of the postdoc experience, and we have seen a great need for the sharing of information that allows these students and researchers to make more informed choices for their career paths. If we continue to produce Ph.D. holders without providing comprehensive information on career outcomes, it is likely that under-employment and unemployment of biomedical researchers will increase. **Accordingly, the NPA enthusiastically supports this recommendation, although we recognize that it will present challenges for institutions in establishing a reliable means for tracking postdocs, especially if funding is not available for doing so.**

This recommendation will require many institutions to establish new policies for postdocs. In order to report outcomes, **they will, at the minimum, have to conduct exit interviews with postdocs.** Thirty-two percent of the institutions responding to the 2011 NPA pilot survey of institutions reported that they conduct exit interviews for postdocs.

Another challenge to reporting outcomes, as noted in the Request for Information, is to standardize the reporting. **As the NPA's resources allow, we would be willing to work with our member institutions and federal agencies to develop a standardized list of career outcomes for use in reporting outcomes on institutional Web sites.** In our opinion, the best chance for successful implementation of this recommendation lies in *first* developing universal tools, such as an NIH-recommended exit interview template or a standardized reporting method for career outcomes, *before* expecting institutions to comply.

Perhaps the most intimidating aspect of this recommendation is tracking postdocs long-term. A possible option is to encourage institutions to treat postdocs as alumni and potential donors, much as they do their undergraduate and graduate students. But, given the challenges that institutions/postdoc offices will most likely face in finding resources to engage in long-term tracking of postdocs, the NPA believes that the best way to accomplish this would be through the NIH's own efforts with its eRA Commons database or the Science Experts Network Curriculum Vitae (SciENcv) project. One of the challenges in the successful implementation of SciENcv could be providing incentives for participation, particularly if a researcher no longer holds a position in the research community. Tracking those who leave science, whether temporarily or long-term, could provide important information regarding career outcomes.

The **Early Career Doctorate Survey** currently under development by the National Science Foundation's National Center for Science and Engineering Statistics may be the most realistic way to track aggregate long-term postdoc career outcomes rather than asking institutions to do this. **The NPA strongly encourages the NIH and the NSF to work together to implement this survey process as soon as possible.**

IV. *Considering the following in training grant applications:*
   o *A range of career outcomes as indicators of success.*
   o *Outcomes of training for all graduate students and postdoctorates in relevant programs, whether or not they are supported by the training grant.*
   In developing policies and procedures for implementing these recommendations in the context of the current review process, it will be important to receive input about what types of careers should be considered a successful outcome. Also, input would be welcomed as to which students and postdoctoral fellows at an institution should be considered as participating in programs relevant to a particular training grant should be included in training grant reports.

The NPA recognizes the difficulty in establishing a range of career outcomes as indicators of success. Firstly, the definition of success may depend on the mission and expected outcomes of the NIH training program; the NIH may need to consider revising these. Secondly, there are various questions to consider, such as "How closely related to conducting research should the range of desired career outcomes be?" For example, is the postdoctoral fellow who moves into the role of director of a postdoc office rather than continue as a researcher, whether in academia or industry, considered a success? (We would say "yes.") The range could include any position that in some way supports the U.S. research enterprise, from teaching high school science to writing science policy. **In the current economic climate, the NPA recommends a broader rather than narrower range.** Codifying this broader range of successful career outcomes as part of the grant review process will also allow the NIH an opportunity to provide guidance and training to peer reviewers, which in turn can help to propagate this definition to the research community.

All students and postdoctoral scholars at an institution participating in programs relevant to particular training grants should be included in training grant reports. One advantage to this might be that, since only domestic postdocs are funded by training grants, including reporting on all participating postdoctoral scholars might provide information on the value of such training programs to the international postdocs, which are an estimated 60% of the U.S. postdoctoral workforce. Furthermore, such reporting would encourage a culture of professional development for postdocs on research grants.

V. *Launching a dialogue with the extramural biomedical research community to assess the construct of NIH support of the biomedical community, including faculty salaries. The implementation team currently is considering what types of data should be gathered to inform this dialogue, and would appreciate input from the community*

The NPA greatly appreciates that the implementation plan for postdoctoral stipend levels increases the baseline to $42,000, as well as increases for each subsequent level, and we applaud indexing the starting stipend to the CPI-U. **As part of this discussion, the NPA,**

however, would like to bring attention to the disparity between the salaries paid to international postdocs versus domestic postdocs and believes the NIH should establish policies to ensure that postdocs regardless of nationality be paid equitably by NIH funds.

    VI.   Concluding Comments

The NPA is willing to discuss these modifications at length with the NIH and to work with the NIH and other entities to ensure that the working group recommendations are implemented in the best possible way. We recognize that some of the recommendations will require reallocation of NIH funding, but we believe that such an investment in quality rather than quantity is necessary and prudent to ensure the sustainability of the biomedical workforce and its research endeavors.

Please do not hesitate to contact us with questions, comments, or requests for participation. Thank you so much for your time and consideration—and for your support of postdocs.

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Endnotes

[1] The use of an IDP is an NPA recommended practice:
http://www.nationalpostdoc.org/index.php/policy-22/institutional-policies/recommended-practices-for-institutions.
[2] In a pilot survey of institutions that the NPA conducted in 2011, 55% of the 74 responding institutions require or encourage postdoctoral supervisors to use the IDP and 51% require or encourage postdocs to complete and IDP. Additionally, 54% reported that their institutions require that postdocs receive an annual performance evaluation/review. The report is available at http://www.nationalpostdoc.org/index.php/publications-5/other-npa-publications.
[3] http://www.nationalpostdoc.org/competencies
[4] http://www.nationalpostdoc.org/images/stories/Documents/AnnualMeetings/2012-am-workshop-framework-handout.pdf
[5] Flint Ehm, K., and Johnson Phillips, C. 2013. From Ph.D. to Professoriate: The Role of the Institution in Fostering the Advancement of Postdoc Women. Washington, DC: National Postdoctoral Association. p. 14.
http://www.nationalpostdoc.org/images/stories/Documents/ADVANCEDocuments/From-PhD-to-Professoriate.pdf