National Postdoctoral Association
Subcommittee on Labor, Health and Human Services, Education and Related Agencies
National Institutes of Health

April 12, 1010

The Honorable Tom Harkin

Subcommittee on Labor, Health and Human Services, Education and Related Agencies

Re: Funding for the National Institutes of Health

Mr. Chairman and Members of the Subcommittee:

Thank you for this opportunity to testify in regard to the Fiscal Year 2011 funding for the National Institutes of Health (NIH). We are writing today in regard to support for postdoctoral scholars, **specifically in support of the 6-percent increase in NIH training stipends**, as requested in the President's Budget.

Background: Postdocs are the Backbone of U.S. Science and Technology

According to estimates by The National Science Foundation (NSF) Division of Science Resource Statistics, there are approximately 89,000 postdoctoral scholars in the United States[1]. The NIH and the NSF define a "postdoc" as: ***An individual who has received a doctoral degree (or equivalent) and is engaged in a temporary and defined period of mentored advanced training to enhance the professional skills and research independence needed to pursue his or her chosen career path.*** The number of postdocs has been steadily increasing. The incidence of individuals taking postdoc positions during their careers has risen, from about 25 percent of those with a pre-1972 doctorate to 46 percent of those receiving their doctorate in 2002–05[2]. Moreover, the number of science and engineering doctorates awarded each year is steadily rising with doctorates awarded in the medical/life sciences almost tripling between 2003 and 2007[3].

Postdocs are critical to the research enterprise in the United States and are responsible for the bulk of the cutting edge research performed in this country. Consider the following:

- Fully 43 percent of first authors on *Science* papers are postdocs.[4]
- According to the National Academies, postdoctoral researchers "have become indispensable to the science and engineering enterprise, performing a substantial portion of the nation's research in every setting."[5]
- Postdoctoral training has become a prerequisite for many long-term research projects.[6] In fact, the postdoc position has become the *de facto* next career step following the receipt of a doctoral degree in many disciplines.
- The retention of women and under-represented groups in scientific research depends upon their successful and appropriate completion of the postdoctoral experience.

- Postdoctoral scholars carry the potential to solve many of the world's most pressing problems; they are the principal investigators of tomorrow.

Unfortunately, postdocs are routinely exploited. They are paid a low wage relative to their years of training and are often ineligible for workman's compensation, disability insurance, paid maternity or paternity leave, employer-sponsored medical benefits, and retirement accounts.

The National Postdoctoral Association (NPA) advocates for policies that support postdoctoral training. We advocate for policy change within the research institutions that host postdoctoral scholars. More than 150 institutions, including the National institutes of Health (NIH) and the National Science Foundation (NSF) have adopted portions of the NPA's recommended practices.

Problem: Postdoc Salaries/Stipends Don't Meet Cost-of-Living Standards

The NIH leadership has been aware that these stipends are too low since 2001, after the publication of the results of the study *Enhancing the Postdoctoral Experience for Scientists and Engineers* conducted by The National Academies' Committee on Science, Engineering and Public Policy (COSEPUP). In response, the NIH pledged (1) to increase entry-level stipends to $45,000 by raising the stipends at least 10 percent each year and (2) to provide automatic cost-of-living increases each year thereafter to keep pace with inflation.

Without sufficient appropriations from Congress, the NIH has not been able to fulfill its pledge. In 2007, the stipends were frozen at 2006 levels and since then have only been raised twice: by one percent each year in 2009 and 2010. The 2010 entry-level training stipend is $37,740, the equivalent of a GS-8 position in the federal government (NIH Statement NOT-OD-10-047), despite the postdocs' advanced degrees and specialized technical skills. Furthermore, this stipend remains far short of the promised $45,000. Certainly, it is not reflective of any cost-of-living increases.

The NPA's research has shown that the NIH training stipends are used as a benchmark by research institutions across the country for establishing compensation for postdoctoral scholars. In order to keep the "best and the brightest" scientists in the U.S. research enterprise, the NPA believes that it is extremely important that Congress appropriate funding for the 6-percent increase in training stipends.

Please consider the following requests from scientists in other countries:

- In 2009, the NPA was approached by a scientist from Qatar for help in recruiting U.S. scientists, and the Qatar Foundation is prepared to offer compensation and benefits that would far exceed those received by most postdocs in the United States.
- Scientists from Canada, China, Japan, and Australia, among other countries, have been seeking the NPA's advice and have asked the NPA to establish partnerships with their organizations.

And the following statistics:

- Although the 2007 U.S. expenditures on Research and Development (R&D) exceeded that of any other country/region, from 1996 to 2007, the U.S. R&D/GDP ratio held steady, while China's ratio doubled.[7]

- From 1996 to 2007, the R&D growth rate for the Asia/Pacific region increased from 24 to 31 percent, while the North American region's growth rate decreased from 40 to 35 percent.[8]
- From 1996 to 2007, the United States average annual growth of R&D expenditures averaged 5 percent, whereas China's average annual growth topped 20 percent.[9]

If the United States is to stay competitive in the global research enterprise, there needs to be continued, steady increases in NIH funding. If the U.S. research enterprise is to keep the best and brightest of postdoctoral scholars, there needs to be a significant increase in training stipends, sooner rather than later.

Solution: Keep the NIH's Original Promise to Raise the Minimum Stipends

In the 2010 NIH budget request, H.R. 3293 contained a 2-percent increase in the NRSA Stipend level. The Senate version of the bill contained no increase. In December 2009 the House-Senate Subcommittee reached a consensus and approved a 1-percent increase in the NRSA stipend level.

The NPA would ask the Subcommittee to recognize that such small increases are simply not enough. **We ask the Subcommittee to honor the President's request** (*NIH Summary of the FY 2011 President's Budget*):

> ***Ruth L. Kirschstein National Research Service Awards:***
> *A total of $824.4 million, which is a 6.0 percent increase over the FY 2010, will be directed to training stipends. This increase sends a clear message to both existing and "would be" scientists that their efforts are valued.*

The NPA believes it is fair, just, and necessary to reward the new scientists who will do the bulk of the research discovering cures for disease and developing new technologies to improve the quality of life for millions of people in the United States. **Accordingly, we also recommend that the NIH:**

- Review the base stipend amount in terms of what it should be today, nine years after the pledge was made.
- Provide cost-of-living adjustments for postdoctoral scholars located in regions with higher costs of living.
- Develop a funding mechanism to provide supplemental funding for postdoctoral scholars on research grants that would help to ensure equitable compensation for all of the NIH-funded postdoctoral scholars.

Finally, ten years have passed since the National Academies' COSEPUP study on the postdoc. The NPA applauds the changes that have taken place to improve the postdoc situation but also recognizes that many serious issues remain unresolved that may, and most probably will, negatively affect the future U.S. research workforce. Thus, the NPA recommends that the **Senate mandates and appropriate funds for a follow-up study that would provide information about the state of the postdoctoral community today.**

Thank you for your consideration.

Sincerely,

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[1] National Science Foundation Division of Science Resource Statistics. (January 2010). Science and engineering indicators 2010. Arlington, VA: National Science Board.
[2] Ibid.
[3] Ibid.
[4] Davis, G. 2005. Doctors without orders. American Scientist 93(3, supplement). http://postdoc.sigmaxi.org/results/
[5] COSEPUP. (June 2001). Enhancing the postdoctoral experience for scientists and engineers. Washington, D.C.: National Academy Press. p. 10.
[6] COSEPUP. (June 2001). Enhancing the postdoctoral experience for scientists and engineers. Washington, D.C.: National Academy Press. p. 11.
[7] National Science Foundation Division of Science Resource Statistics. (January 2010). Science and engineering indicators 2010. Arlington, VA: National Science Board.
[8] Ibid.
[9] Ibid.