

**Submission by The American Association of Immunologists  
to the National Institutes of Health in response to its Request for Information on  
“Recommendations on Re-envisioning U.S. Postdoctoral Research Training and Career  
Progression within the Biomedical Research Enterprise”**

**October 22, 2024**

The American Association of Immunologists ([AAI](#)), one of the world’s largest organizations of immunologists and scientists in related disciplines whose mission is to improve global health and well-being by advancing immunology and elevating public understanding about the immune system, appreciates this opportunity to submit comments in response to the “National Institutes of Health (NIH) Request for Information (RFI) on Recommendations on Re-envisioning U.S. Postdoctoral Research Training and Career Progression within the Biomedical Research Enterprise ([NOT-OD-24-150](#)).” These comments were submitted electronically on the submission website on October 22, 2024.

**NIH Recommendation 1.3: Limit the total number of years a person can be supported by NIH funds in a postdoctoral position to no more than 5 years.**

**Part 1:**

- *Describe any potential benefits, opportunities, challenges and/or consequences to the postdoctoral workforce or the extramural research community if NIH were to limit total years of NIH-supported funding support for postdoctoral scholars.*
- *Please describe any existing NIH or extramural institutional policies that could pose challenges for the implementation of a policy to limit aggregate NIH funding support for postdoctoral scholars.*

**AAI response:**

AAI appreciates NIH’s intent in limiting the postdoctoral period to five years. A well-defined timeframe could aid in establishing expectations, reinforcing the postdoctoral experience as a transition to independence, and enhancing career advancement. However, AAI foresees challenges associated with a 5-year limit, including discipline-specific requirements (e.g., immunology research often relies heavily on time-consuming animal models or lengthy human cohort studies); added pressure and its effect on work-life balance; potential inequities for vulnerable populations (including international scholars) and those who are in family planning years or have other major life events or responsibilities; and a potential negative impact on innovation. AAI urges NIH to consider these and other challenges and implement standardized processes for applying for and granting extensions. AAI also believes that NIH should establish a mechanism and eligibility criteria for those who move from one postdoctoral position to another, creating a clear pathway to extend the 5-year limit, given that extenuating circumstances often account for seeking multiple postdoctoral positions. Finally, AAI urges NIH to take additional meaningful steps to ensure a 5-year limit has the desired effect of advancing scientific careers and does not force postdoctoral scholars into entry-level positions with fewer protections and guidelines.



**Part 2:**

- *Please describe any key NIH or extramural institutional policies, process or resources that should be developed, improved or expanded to address any potential challenges associated with limiting aggregate funding support for postdoctoral scholars.*
- *What mechanisms should be put into place by extramural institutions to support transitions for postdoctoral scholars nearing the end of the five-year period?*

**AAI response:**

AAI believes that intentional career development, forward-thinking planning, and effective mentorship are key to meaningful change in the postdoctoral experience and are essential to making a 5-year limit successful; however, these critical components are not always incorporated into the postdoctoral experience. Therefore, NIH and institutions should develop, disseminate information regarding, and monitor the success of, comprehensive career development programs to help facilitate smooth career transitions to a wide variety of careers. AAI urges NIH to consider creating funding mechanisms to support such programs. NIH should also strongly encourage principal investigators (PIs) and postdoctoral scholars to create general timelines with periodic benchmarks to establish clear expectations and measurable goals throughout the 5-year period. PIs may need additional training and resources to adapt to culture change and effectively train postdoctoral scholars on defined timelines. NIH and institutions should consider and adopt a process for extension if a research project or publication cannot be completed by the end of the five-year period. Because seeking and securing an independent position can be a lengthy process that often requires publications and other time-intensive metrics, NIH and institutions should take this into consideration given that it may effectively shorten the time period for conducting research.

**NIH Recommendation 2.2: Revise the K99/R00 mechanism to focus on ideas and creativity over productivity.****Part 1:**

- *Describe any potential short- and long-term benefits and/or challenges to the postdoctoral workforce that may result from limiting the K99/R00 eligibility timeframe to no more than 2 years of postdoctoral experience.*

**AAI response:**

AAI strongly opposes limiting the K99/R00 eligibility timeframe to no more than two years of postdoctoral experience. Beyond providing potentially insufficient time to establish a research project from the ground up, especially in certain fields (e.g., those that rely on animal models), a two-year limitation may exacerbate existing biases. By shortening the eligibility window, candidates from well-resourced and well-established labs that have readily available data or projects to take on would have a significant advantage, while those who take time to start families or have other responsibilities may be further disadvantaged. Limiting to two years the eligibility timeframe for the K99/R00, one of the only training grants available to non-U.S. citizens, may also adversely affect



international scholars who have unique challenges (e.g., visa renewals) and may need more time to establish vital scientific networks. Furthermore, a two-year timeframe may exacerbate work/life balance issues. Postdoctoral scholars who wish to pursue the K99/R00 may feel pressured to generate data and establish projects quickly, potentially limiting innovation and sacrificing time otherwise spent on career development endeavors or outside the lab. This policy would also essentially negate the possibility of applying for the award more than once.

**Part 2:**

- *How should the K99/R00 mechanism and review criteria be revised to better emphasize creative ideas and innovation over research productivity? What specific criteria or metrics should be used to evaluate creativity and potential impact of applicants' research proposals?*
- *Provide input on key NIH and extramural institutional policies, processes or resources that may need to be developed or revised to ensure that changes to K99/R00 program eligibility do not negatively impact access to these awards to a broader range of postdoctoral scholars.*

**AAI response:**

AAI believes that revising the review criteria is likely insufficient to mitigate the potential biases and negative impacts that may result from a two-year eligibility window. However, AAI appreciates NIH's desire to emphasize creative ideas and innovation in the review criteria to broaden access to these awards. As "creativity" can be highly subjective, AAI urges NIH to create clear metrics to measure the creativity of research proposals. Metrics to measure research creativity/innovation may include novelty, feasibility, impact, risk level, and the use of new approach methods. Metrics to measure the candidate's potential for successful independence may include resiliency, problem solving skills, and creative collaboration. Revision of the review criteria will require significant training for reviewers and scientific review officers. Finally, NIH should monitor and assess the effectiveness of the revised review criteria to ensure they are having the desired effect and not resulting in negative unintended consequences.

**NIH Recommendation 4: Promote training and professional development of postdoctoral scholars and their mentors.**

**Part 1:**

- *Provide suggestions/strategies for how NIH and extramural institutions can ensure that career and professional development training becomes an integrated and measured component of the postdoctoral experience. What policies and resources should institutions establish to ensure equitable access to career and professional development training for all postdoctoral scholars? How can institutions address barriers to participation, such as limited availability of training programs or conflicts with research obligations?*

**AAI response:**



NIH and institutions should establish or amend existing postdoctoral policies to include protected time dedicated to professional development beyond research, ensure that PIs and their mentees comply with these policies, and require reporting of professional development endeavors in training grants and progress reports. Institutions should establish or provide access to (e.g., by providing funding or scholarships) a wide range of evidence-based career and professional development opportunities, including mentoring, teaching, networking, attending conferences, and skill building, from which scholars can choose to participate based on their goals. Training for both PIs and postdoctoral scholars on generating individual development plans (IDPs) and incorporating relevant professional and career development opportunities into IDPs should be provided. Institutions should establish or strengthen dedicated offices to support postdoctoral training and career development, and/or utilize and widely publicize free, existing training resources. To address barriers and ensure equitable access, institutions should make resources accessible (e.g., provide closed captioning, ASL translation) and provide flexibility (e.g., offer virtual training options or free recordings).

**Part 2:**

- *What specific skills and competencies are essential for individuals serving in the mentor role for postdoctoral scholars? How should institutions require and support mentor training to ensure the effective mentorship of postdoctoral scholars? Describe any necessary resources required by investigators and institutions to support the implementation of required training opportunities for mentors*
- *Are there opportunities for collaboration between institutions, funding agencies, and professional organizations to enhance career and professional development opportunities for postdoctoral scholars? How can partnerships with industry, government agencies, and non-profit organizations contribute to the enrichment of postdoctoral training experiences?*

NIH and institutions should require evidence-based training for mentors that includes education on mentorship styles to fit individual mentees (who are not “one size fits all”), the power imbalance between mentor and mentee and ways to successfully navigate that relationship, and effective communication. Mentors should be encouraged to support all scientific career paths and effectively help mentees establish and pursue specific career-oriented goals. Mentors should receive IDP training to ensure each IDP is useful and has concrete and achievable goals and be encouraged to actively engage in regularly reviewing and updating IDPs with their mentees. Institutions should also encourage mentorship roles outside of the primary PI/postdoctoral scholar relationship to assist postdoctoral scholars in building a network and support system. Collaborative efforts among institutions, funding agencies, and professional organizations are invaluable and should be enhanced and leveraged (e.g., Postdoc Academy). Discipline-specific collaborations between institutional departments and scientific societies can also provide tailored training and resources.

