ASPET
Transforming Discoveries into Therapies

Submitted online via RFI website on October 23, 2024.

RE: Recommendations on Re-envisioning U.S. Postdoctoral Research Training and Career Progression within the Biomedical Research Enterprise (NOT-OD-24-150)

The American Society for Pharmacology and Experimental Therapeutics (ASPET) appreciates the opportunity to provide comments on the Request for Information Regarding the Recommendations on Re-envisioning U.S. Postdoctoral Research Training and Career Progression within the Biomedical Research Enterprise. ASPET is a 4,000-member scientific society whose members conduct basic and clinical pharmacological research and work in academia, government, industry, and non-profit organizations. ASPET members conduct research leading to the development of new medicines and therapeutic agents to fight existing and emerging diseases.

Please find ASPET's comments on each proposed recommendation below.

Recommendation 1.3 Part 1: Limit the total number of years a person can be supported by NIH funds in a postdoctoral position to no more than 5 years.

- **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.**

ASPET supports a five-year cap on postdoctoral scholar status, while providing extensions for significant life events. ASPET is concerned that the 5-year limit without opportunity for extension will exacerbate inequities for postdocs who are in family planning years, are temporary visa holders, experience unexpected life circumstances, switch labs in cases of incongruence between the scholar and the mentor. The benefit of implementing a five-year cap on the postdoctoral experience is that it ensures that both postdocs and their mentors establish and execute a training plan within this period.

ASPET encourages NIH to establish a clear, standardized policy and application process for granting extensions due to significant life events. NIH should specify what constitutes significant life events and ASPET recommends it includes a broad spectrum of issues, a few are listed here:

· Childbirth/parental leave

- Dependent care
- Illness
- Unforeseen circumstances like pandemics and natural disasters
- Switching labs in cases of incongruence
- Switching fields of study to allow for a transition time
- International moves to allow for acclimation
- Visa processing/renewal

Recommendation 1.3 Part 2: Limit the total number of years a person can be supported by NIH funds in a postdoctoral position to no more than 5 years.

- **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?**

ASPET supports a five-year cap on postdoctoral scholar status, while providing extensions for significant life events, ASPET recommends that NIH creates an NIH-wide tracking system to track postdoctoral periods across different institutions and scientific fields and make the data public. Creating such a tool and making the data public can potentially incentivize grantees to help transition their postdocs in a certain number of years.

ASPET also recommends NIH create programs and guidelines for institutions to support transitions to stable staff scientist positions in academic labs with a meaningfully increased salary compared to postdoc positions for scientists who complete the 5-year limit.

Additionally, annual reports for NIH-supported grants involving postdoc scholars should report the total number of years any hired postdoc has accumulated in any postdoc position. NIH should increase community awareness of the potential consequences of limiting the number of years a person can be supported by NIH funds, like having fewer publications, to adjust job market expectations (academia and otherwise) to accommodate the change. Finally, NIH should develop partnerships with employers outside of academia to support the diversity of careers for PhDs to facilitate networking and future job opportunities.

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

- **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.**

ASPET recognizes that limiting the timeframe to no more than 2 years will help accelerate transitions to faculty positions, we believe that the 2-year time limit is too restrictive.

Given the timelines of NIH grant funding cycles, limiting the eligibility timeframe to 2 years will not allow people time to reapply for multiple cycles after the first rejection as many NIH grant applicants require multiple submissions before they are funded.

Current review criteria require more experience in the lab and demands that the applicant has made tangible project progress. Limiting the eligibility timeframe can exacerbate disparities between postdocs in large, highly resourced labs that can help them expedite a project versus

postdoc in smaller labs with less resources. A 2-year time limit will disadvantage projects and research fields that require animal models as they require more time to develop.

It is important to note that projects can be unpredictable and that the first year of a postdoc can be a learning curve. A limited eligibility timeframe will disadvantage postdoctoral scholars who may need additional time to establish their projects.

Recommendation 2.2 Part 2: Revise the K99/R00 mechanism to focus on ideas and creativity over productivity.

- **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.**

ASPET recommends that NIH revises the grant review criteria to clarify the definition of "creativity." NIH should educate grant reviewers to shift expectations away from pilot data or publications and train them to recognize "creativity" in a standardized manner.

ASPET also recommends that NIH consider modeling the K99/R00 review criteria on other less preliminary data-driven review criteria like the R21 grants. R21 grants are meant to be exploratory/ developmental grants and are reviewed with criteria that include the understanding that a project is in its early and conceptual stages. This evaluation criteria already exists within NIH's portfolio and adapting it for K99/R00 can be a first step in shifting current expectations away from pilot data, publications, and productivity being prerequisites to a more creative, innovative direction.

NIH should also improve the grant review process/timeline such that the time between grant submission and decision is decreased as shortening the timeline to secure funding will shorten postdoc periods.

Additionally, there needs to be alignment of creativity versus productivity in all NIH grants to not disadvantage those who start off with a new model of grant priorities through K99/R00 if they were to apply to other grants in the future.

Recommendation 4 Part 1: Promote training and professional development of postdoctoral scholars and their mentors.

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?

ASPET strongly supports professional and career development of postdocs. However, what constitutes professional development varies based on an individual's career aspirations, their

advisor's understanding of professional development, and the opportunities available for the postdoc. ASPET recommends NIH create guidelines for advisors and institutions to help ensure robust career development for the postdoctoral scholar. Career development activities beyond research (e,g. attending conferences and publications) could include mentoring undergraduate and graduate research projects, teaching, internships, and other desired career skills development. We recommend that oversight of these activities be approved by a postdoctoral support office or a separate entity.

Additionally, postdocs should create an Individual Development Plan (IDP) with their mentors that is included in the scholar's and mentor's grant applications and ensure they meet the 10% effort requirement. ASPET recommends NIH implements an annual reporting mechanism and enforcement to confirm professional development training and mentor training is being met for each scholar and their mentor and to ensure the scholar's professional development is being supported by their advisor and institution.

NIH should consider developing a centralized hub for professional development resources and targeted training modules to support trainees who have limited available training opportunities.

Recommendation 4 Part 2: Promote training and professional development of postdoctoral scholars and their mentors.

- **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?**

ASPET believes that mentors of postdoctoral scholars as well as postdocs (as many do become future mentors) should receive mentorship and teaching training. NIH should require that this training be part of grant applications and include a robust reporting mechanism from mentors and postdocs to NIH. ASPET also recommends that NIH require institutions to provide opportunities for skill building to postdocs that would make them successful assistant professors (like teaching and mentorship) and require aspects of those skills be met as part of postdoc grant applications.

ASPET strongly supports partnerships with NIH, academic institutions, scientific societies and industry. NIH should partner with different sectors to facilitate partnerships for networking and employment. ASPET recommends that through these partnerships NIH could help create novel funding mechanisms with partners to facilitate pipelines for career transitions so that postdocs have a wide range of options after they complete their training. NIH can also partner with scientific societies and industry to provide financial support for the development of skill-building and professional development opportunities for their postdoc and mentor members.