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FASEB comments in response to NOT-OD-24-150, "Request for Information (RFI): Re-envisioning U.S. Postdoctoral Research Training and Career Progression within the Biomedical Research Enterprise."

Comments submitted electronically via online submission form on October 9, 2024

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.*

FASEB strongly supports the postdoctoral research workforce and believes NIH is well-positioned to create positive changes that enhance the postdoctoral training ecosystem. Reaffirming our prior comments to the ACD working group, FASEB supports limiting NIH support for postdoctoral scholars to a short, well-defined transitionary period toward independence. However, FASEB urges caution for potential downstream negative effects and inequities for vulnerable populations—particularly postdocs who are in family planning years or temporary visa holders.

FASEB recommends NIH:

- Consider challenges associated with timeline requirements of different disciplines and research projects.
- Establish a clear, standardized policy for granting extensions due to major life events.
- Provide extensions and support for significant life events (e.g., childbirth/parental leave, family care, illness), major setbacks (e.g., pandemics, natural disasters) and changes in research direction (e.g., switching labs, mentors and/or research fields).
- Grant extensions to international scholars facing unique transition challenges after moving to a new country requiring additional time to acclimate to research culture and publishing following relocation.
- Provide one-year extensions for international postdocs who travel home for visa processing, renewals, or visa type changes.
- Allow extensions for researchers to pursue multiple postdoc positions in different labs to explore new research areas to maximize personal and professional growth.

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?*

FASEB believes NIH is well-positioned to create positive changes that enhance the postdoctoral training ecosystem. As many institutions already have a 5-year limit, FASEB recommends NIH:

- Assess and support institutional programs that emphasize postdoc conversion to tenure track faculty.
- Increase community awareness and utilization of NIH Re-entry Supplements Program to support retention and career progression of postdocs with caregiving responsibilities.
- Use IRACDA as a model program for ushering postdocs into a chosen career by further investing in IRACDA and piloting similar programs for transition to other employment sectors.
- Create programs with dedicated funding that support stable staff scientist positions in academic labs to retain research talent. Otherwise, only well-funded labs may be able to retain such talent, perpetuating inequities between established and newer labs.
- Develop guidelines to help institutions navigate the term-limit policy, by providing a clear transition policy to ensure uniform and effective implementation.
- Require institutions to establish clear expectations at the time of appointment for both postdocs and their PIs, outlining roles, progress in research, and guidance on career support or professional development.
- Create, if feasible, an NIH-wide tracking portal to monitor postdoctoral period across different PIs and institutions.

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.*

The K99/R00 awards aim to support postdocs transitioning into independent scientists. While FASEB acknowledges that the proposed changes to limit the eligibility timeframe to 2 years could accelerate the transition from trainee to faculty, FASEB is concerned that they could exacerbate existing challenges within the postdoctoral workforce. Specifically:

- It's crucial to avoid further bias infiltrating the K99/R00 mechanism, particularly as many postdocs are in their family planning and child-rearing years or come from backgrounds underrepresented in biomedical sciences.

- A 2-year time limit will perpetuate inequities by placing undue emphasis on a strong publication record, a presumed sponsor, and the prestige of the institution in the selection process.
- The K99 is the only mechanism explicitly available to postdocs who are not U.S. citizens. Reducing the eligibility window could adversely impact international scholars, who often face the dual challenges of establishing mentors, scientific networks, and communities while also adjusting to life and research in the U.S.
- A 2-year time limit will be a disadvantage to some research fields (e.g., animal models) and postdoctoral scholars who may need additional time to establish their postdoctoral projects.
- The cap may unintentionally limit postdoc creativity and hinder opportunities to acquire new skills and techniques.

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.*

FASEB appreciates efforts to reduce bias by focusing the review of K99/R00 on ideas and creativity more than research productivity to better support the diverse talent pool of postdoctoral scholars. However, FASEB urges NIH to ensure these changes do not limit access to these awards for a broader range of postdoctoral scholars due to unintended consequences. Recommendations include:

- Clarification of the revised review criteria, including a standardized definition of "creativity" and clear evaluation metrics.
- When assessing creativity, NIH must consider how feasibility and recommendation letters will be evaluated to ensure that the reference letter requirements align with the revised criteria.
- NIH must adapt its award processes and policies, including the creation of targeted training modules for applicants, mentors, and institutions.
- NIH must pilot a new transition award mechanism or seed grants that emphasize creativity, to offer a more rapid and stable path toward independence.
- NIH scientific review officers evaluating proposals should be trained to recognize and value creativity, resiliency, and problem-solving skills, even outside a strictly data-driven research context. Collecting data on whether reviewers' evaluations align with the revised criteria will help NIH assess and refine the effectiveness of these policy changes.

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?

At present, professional development beyond additional research skills varies widely for academic postdocs across the country by the individual, research advisor, and opportunities at the institution. Participation in such programs and activities may also be limited based on citizenship. To address these disparities, FASEB recommends that NIH:

- Include reporting requirements in training grants to track and ensure postdocs have protected time for professional development activities. These activities should extend beyond research and encompass mentoring, teaching, networking, conference attendance, internships and career skills development.
- Offer training for mentors and mentees on incorporating professional development into a postdoc's Individual Development Plan (IDP), covering career goals, timelines, and progress evaluations.
- Allow grant funds to be allocated for pooling resources at the institutional level for career and professional development programs that address both academic and non-academic career path.
- Require institutions with a significant number of postdoctoral scholars to establish a postdoctoral support office to support the needs of the postdoctoral community.
- Develop a centralized hub for professional development resources, linking to existing materials from NPA, PDHub, professional societies, and NIH ICs, to reduce inefficiencies and promote equity.

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?*

Mentorship is important for trainees in the biomedical workforce. FASEB recommends that NIH:

- Establish robust, reportable grant requirements for mentorship training for NIH-funded PIs, menteeship training for postdocs, and mentoring committees at all institutions receiving NIH funding, similar to those in NIH mentored training programs.
- NIH must require institutions to offer mentorship training workshops that focus on key skills such as addressing postdoc needs, conflict resolution, networking, responsible research conduct, authorship, conflict of interest, and handling misconduct.
- Update grant reporting criteria to prioritize a mentoring network, requiring additional mentors beyond the PI to support trainees' career and professional development.
- Institutions and advisors should foster partnerships with professional organizations, scientific societies, and industry to enhance postdoc professional development opportunities.
- Strengthen relationships with extramural organizations dedicated to improving postdocs' training and professional development, such as the National Postdoctoral Association, and partnering to encourage widespread adoption of already identified recommended policies and practices.
- Promote awareness of programs, such as National Research Mentoring Network (NRMN) and Center for the Improvement of Mentored Experiences in Research (CIMER) to implement and share evidence-based best practices for improving mentoring relationships at institutions.
- Leverage insights from NIH BEST program and NASEM's Science of Effective Mentoring in STEMM recommendations.

Sincerely,

Beth A. Garvy, PhD

FASEB President