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Michael Lauer, MD
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9000 Rockville Pike
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RE: 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)

Submitted via email and electronically at:
https://rfi.grants.nih.gov/?s=6660cc1aa1264f88920cf122

Dear Dr. Lauer,

The Association of American Medical Colleges (AAMC) appreciates the opportunity to provide feedback to the National Institutes of Health (NIH) on this request for information to inform the implementation of recommendations from the Advisory Committee to the Director on re-envisioning U.S. postdoctoral research training and career progression within the biomedical research enterprise (NOT-OD-24-150). The AAMC is a nonprofit association dedicated to improving the health of people everywhere through medical education, health care, medical research, and community collaborations. Its members are all 158 U.S. medical schools accredited by the Liaison Committee on Medical Education; 13 accredited Canadian medical schools; nearly 500 academic health systems and teaching hospitals, including Department of Veterans Affairs medical centers; and more than 70 academic societies. Through these institutions and organizations, the AAMC leads and serves America's medical schools, academic health systems and teaching hospitals, and the millions of individuals across academic medicine, including more than 201,000 full-time faculty members, 97,000 medical students, 158,000 resident physicians, and 60,000 graduate students and postdoctoral researchers in the biomedical sciences. Following a 2022 merger, the Alliance of Academic Health Centers International broadened participation in the AAMC by 70 international academic health centers throughout five regional offices across the globe.

In 2023, the AAMC submitted recommendations which addressed the initial phase of the "Re-envisioning U.S. Postdoctoral Research Training and Career Progression within the Biomedical Research Enterprise" effort.[1] Our comments related to postdoctoral positions and scholars reflect the input from many of these constituents, primarily from leaders of postdoctoral programs and

[1] AAMC Response to NIH Request for Information (RFI) on Re-envisioning U.S. Postdoctoral Research Training. 2023. https://www.aamc.org/media/66136/download?attachment

graduate programs; research deans; research faculty,[2] and scholars funded through the NIH-sponsored AAMC Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) program.

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.

NIH Request: 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.

For many years, the AAMC has advocated that a postdoctoral appointment should be a time-limited position which allows for the development of research, mentoring, and professional skills.[3] **However, we do not support the imposition of a fixed, five-year limit on NIH-funding support for postdoctoral scholars without including well-defined exceptions when such a limit would impede an individual's career progression or would exacerbate existing barriers**.

- **Focus on career development 'checkpoints.'** To discourage postdoctoral positions from becoming ill-defined career steps without predetermined ends, NIH should encourage institutions and mentors to adopt regularly-spaced "checkpoints" to measure research and professional development progress and discuss career goals. Checkpoints ensure that mentors are accountable for the early and consistent identification of research and professional roadblocks and development of mitigation measures. If implemented successfully, checkpoints allow mentors to facilitate postdoctoral scholars' transition to their next career stages.

- **Do not exacerbate existing barriers.** While the AAMC agrees with NIH that a postdoctoral experience should not be unnecessarily prolonged, **there are situations in which a 5-year limit on NIH-support of a postdoctoral scholar would work against NIH's commitment to ensure a diverse research workforce**. We believe that individuals' graduate and postdoctoral experiences are variable and thus, a successful postdoctoral experience may require variable timeframes. As an example, for a postdoctoral scholar who receives a 2-year grant in their fourth year of postdoctoral training but has a clear, time-defined plan for transitioning into the next career stage, an additional year in a postdoctoral position would be entirely appropriate. A postdoctoral scholar who works at a less well-resourced institution or an international postdoctoral scholar may require additional time to attain the expected research milestones. Some institutions have established institutional time-limits on postdoctoral appointments that

[2] Including the following AAMC professional development groups: the Group on Research Advancement and Development (GRAND); the Group on Research, Education and Training (GREAT); and the Council of Faculty and Academic Societies (CFAS).
[3] AAMC Response to NIH Request for Information (RFI) on Re-envisioning U.S. Postdoctoral Research Training. 2023. https://www.aamc.org/media/66136/download?attachment

account for this variability, such as a 5-year term limit with an option for a one-year extension under specific circumstances.

NIH Request: 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.

- **Increase institutional and mentor accountability**. The AAMC strongly agrees with the recommendation within the *2023 Advisory Committee to the Director Postdoctoral Scholar Working Group report*, that accountability for mentoring responsibilities be achieved through "consistent [NIH] reporting." To codify and enforce career development checkpoints as specified above, we recommend that NIH require checkpoint progress to be recorded as part of the Research Performance Progress Report (RPPR) segment of a grant, a "mentorship plan for requested postdoctoral positions for all funding mechanisms,"[4] or other reporting mechanisms.

- **Utilize person-centric review criteria that values potential.** Obtaining NIH-awarded grant funding is a crucial step for postdoctoral scholars as they establish and maintain an independent research career. When assessing the potential of a postdoctoral grant applicant, we urge NIH to utilize a person-centric approach that values potential,[5] rather than extensive preliminary data, which may favor postdoctoral scholars in large, resource-heavy labs. A change in the grant review process that de-emphasizes specific components of an application (e.g., prestige of applicant's institution), along with accompanying culture change, will ensure that any time limit enforced by NIH does not unduly advantage a subset of individuals but rather allows a broad range of diverse postdoctoral applicants to be objectively recognized as meritorious.

Recommendation 2.2: Revise the K99/R00 mechanism to focus on ideas and creativity over productivity.
NIH Request: 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 AAMC supports NIH's overall goal of decreasing time to independence for postdoctoral scholars. However, we believe **NIH should not implement the current proposed recommendation, which reduces the eligibility window for the K99/R00 funding mechanism from four years to two years, because of unintended consequences which would undermine NIH's stated goal of facilitating more rapid transition of postdoctoral scholars to their next career stage.**

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[4] NIH Advisory Committee to The Director Working Group On Re-Envisioning NIH-Supported Postdoctoral Training: Report to the NIH ACD. Dec 2023. https://acd.od.nih.gov/documents/presentations/12152023_Postdoc_Working_Group_Report.pdf

[5] AAMC Response to NIH Request for Information (RFI) on Recommendations for Improving NRSA Fellowship Review. June 2023. https://www.aamc.org/media/68376/download?attachment

- **Shortening the K99/R00 timeframe to two years could exacerbate existing barriers for postdoctoral scholars.** Reducing the K99/R00 eligibility window from four years to two years could disproportionately impact a subset of postdoctoral scholars, including individuals from resource-limited institutions, those who are unfamiliar with the K99/R00 mechanism, those who did not have a positive graduate school experience and therefore need more time in a postdoctoral position to achieve their research milestones, those whose initial postdoctoral placement was a poor match and who subsequently transitioned to a new postdoctoral position, and those who change fields during their postdoctoral training period.

- **Shortening the K99/R00 timeframe to two years would conflict with NIH's goal to promote independence.** By reducing the eligibility window to two years, applicants may need to rely on data from the grants' principal investigators, rather than developing independent projects, thwarting NIH's goal of fostering postdoctoral independence. Reducing the eligibility window may also limit the number of applicants who apply because of perceptions that significant preliminary data collection and publications are required to be competitive for the K99/R00.

NIH Request: 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.

- **Reducing the eligibility window may not incentivize creativity.** While an aim of this recommendation is to incentivize creativity in the review process, postdoctoral scholars may assume that creative and novel research ideas will take more time to develop. Therefore, some may choose to propose "safer" or more iterative ideas as a result of the change.

- **Reducing the eligibility window should be a data-informed decision.** The AAMC believes that **decision to shorten the eligibility window should be evidence-informed, thereby reducing the likelihood of excluding promising candidates and exacerbating preexisting biases**. We urge NIH to 1) identify the number of K99/R00 grantees who apply twice before successfully obtaining a K99/R00 award and 2) examine the potential impact of a shortened eligibility window on postdoctoral scholars' ability to apply for an award a second time – especially considering the length of the peer review process. We also urge NIH to examine how various characteristics of postdoctoral scholars and institutional features are associated with the success of K99/R00 grant applications.

- **Concrete measures should be implemented to improve equity among postdoctoral scholars.** We propose that NIH, in partnership with professional societies, associations, and institutions, broadly disseminate resources about the K99/R00 award mechanism (e.g., the elements and attributes of a successful application) and facilitate the creation of peer mentorship connections with existing or alumni K99/R00 scholars. For study sections and grant reviewers, NIH should reinforce the importance of evaluating applicants based on the applicant's potential, rather than productivity.

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

NIH Request: 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?

Robust career and professional development training is an essential and formative part of the postdoctoral research training experience that requires dedicated time for the scholars.

- **Require institutions to invest in postdoctoral professional development.** The AAMC supports the *2023 Advisory Committee to the Director Postdoctoral Scholar Working Group* recommendation (4.1) that NIH require institutions to allocate a minimum of 10 percent of a postdoctoral scholar's effort toward career and professional development. Professional development can be supported using non-research grant funding or specific funds that are designated for training within a research grant. Regardless of how a postdoctoral position is funded, **the AAMC firmly believes that all postdoctoral scholars should have equitable access to career and professional development opportunities**.

- **Clarify institutions' responsibility in supporting postdoctoral scholars' career and professional development.** The AAMC recommends that NIH clarify its expectations for institutions in light of the Office of Management and Budget (OMB) uniform guidance regarding the dual role of postdoctoral scholars who are engaged in federally-funded research projects. Postdoctoral scholars are unique because while some institutions categorized them as staff, they are also engaged in training, which, by nature, necessitates dedicated time for career and professional development. Due to these dual roles, some institutions struggle to comply with the OMB's guidance and could use more explicit direction from NIH to address this issue.

NIH Request: 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.

Required skills for mentoring postdoctoral scholars. Well-trained mentors can significantly enhance the development and success of postdoctoral scholars by providing guidance, support, and resources. The ability to successfully mentor postdoctoral scholars **requires a wide range of competencies,** including coaching, cultural and emotional intelligence, clear communication, effective leadership, and problem solving.

- **Require mandatory training and accountability for postdoctoral mentors.** Effective mentorship is a fundamental component of a positive and productive postdoctoral experience, and it should not be left to chance. **The AAMC recommends that mentor training be required for all faculty members who supervise postdoctoral scholars and graduate students.** This could be achieved through individual institutions or through an NIH mandate with which all institutional mentors must comply. To encourage faculty engagement, promote accountability, and foster an institutional culture that values and prioritizes effective mentoring, institutions should consider linking mentor training to advancement, promotion and tenure. Progress on achieving mentorship plan goals should be recorded as part of the Research Performance Progress Report (RPPR) segment of a grant or other reporting mechanisms.

- **Develop and disseminate resources to support mentor training.** The AAMC developed the *Compact Between Postdoctoral Appointees and their Mentors*[6], a document that provides program directors, administrators, and faculty with models to guide discussions about the trainee-mentor relationship at the local and national levels. **The AAMC highly endorses this document** as a mechanism to bolster institutions' commitment to establishing and maintaining high quality training programs. The AAMC would welcome the opportunity to partner with NIH, as well as other associations and societies, to disseminate this compact and other resources across institutions, such as programs developed by NIH-funded Clinical and Translational Science Award, Professional Development Hub, and The Center for the Improvement of Mentored Experiences in Research among others. We believe that regional and/or national resources can be applied across institutions.

- **Utilize existing networks to obtain feedback.** We recommend that NIH and its partners **utilize established postdoctoral scholar networks,** such as the MOSAIC program, **to collect feedback on postdoctoral scholar experiences and recommendations for resources.**

[6] AAMC Compact Between Postdoctoral Appointees and Their Mentors. 2017. https://store.aamc.org/compact-between-postdoctoral-appointees-and-their-mentors-pdf.html

The AAMC appreciates the opportunity to submit these comments to NIH and remains committed to continued engagement as you consider recommendations to improve postdoctoral research training and career progression. Should you have questions regarding this response, please contact me or Jodi Yellin, PhD, Director, Research Workforce, Training, and Science Policy, at jyellin@aamc.org

Sincerely,

Elena Fuentes-Afflick, MD, MPH
Chief Scientific Officer

cc: David J. Skorton, MD, AAMC President and Chief Executive Officer