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National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20892

RE: Request for Information (RFI) on Re-envisioning U.S. Postdoctoral Research Training and Career Progression within the Biomedical Research Enterprise (NOT-OD-23-084)

Submitted electronically at: https://rfi.grants.nih.gov/?s=639675dcf6d8bc7e840ce9c2

The Association of American Medical Colleges (AAMC) appreciates the opportunity to provide feedback to the National Institutes of Health (NIH) on the re-envisioning U.S. postdoctoral research training and career progression within the biomedical research enterprise (NOT-OD-23-084). 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 157 U.S. medical schools accredited by the Liaison Committee on Medical Education; 13 accredited Canadian medical schools; approximately 400 teaching hospitals and health systems, 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 and teaching hospitals and the millions of individuals across academic medicine, including more than 193,000 full-time faculty members, 96,000 medical students, 153,000 resident physicians, and 60,000 graduate students and postdoctoral researchers in the biomedical sciences. Following a 2022 merger, the Alliance of Academic Health Centers and the Alliance of Academic Health Centers International broadened the AAMC's U.S. membership and expanded its reach to international academic health centers. Our comments reflect input from many of these constituents, primarily from our leaders of postdoctoral programs and graduate programs; research deans; deans for diversity, equity and inclusion; and research faculty[1].

The AAMC is pleased that the NIH reached out to the community for input. Below you will find our perspectives, recommendations, and resources in each of the areas for which input was requested.

Perspectives on the roles and responsibilities of the academic postdoc (e.g., what the postdoctoral position means to you, how you view it).

- **Defining a postdoc**. The AAMC defines an academic postdoctoral researcher (postdoc) as an individual who has received a doctoral degree (or equivalent) and is engaged in a

[1] Including the following AAMC professional development groups: the Group on Research Advancement and Development (GRAND); the Group on Research, Education and Training (GREAT); the Group on Women in Medicine and Science (GWIMS); the Group on Faculty Affairs (GFA); the Group on Diversity and Inclusion (GDI), and the Council of Faculty and Academic Societies (CFAS).

temporary and defined period of mentored, advanced training.[2] A postdoc position is undertaken as an intermediate that bridges predoctoral training and an independent career. STEMM[3] doctoral degree recipients enter a wide range of careers in academia, industry and other sectors including academic administration, law/policy, consulting, writing and research. While we recognize that some postdocs have still not decided on their career trajectory, we encourage individuals to pursue postdoctoral positions as an *intentional* choice to further an academic or industrial research career, rather than as a default 'next step' in the training pathway.

- **The time in postdoc positions should be delimited.** A postdoc should be utilized as a *time-limited* position that allows for the development of research, mentoring, and professional skills. We recommend NIH discourage the use of a postdoc position as an ill-defined step without a predetermined end.

- **Effective, responsive mentoring and career development is necessary.** A postdoc's ability to develop original research and move towards greater independence necessitates a strong mentoring relationship between the postdoc and the principal investigator and other mentors. In addition, postdocs should have career development opportunities to prepare them for multiple career options. NIH should support the development and dissemination of shared program resources and assessment tools to understand what programs work and what does not.

- **Research is international.** Any solutions for attracting and cultivating postdoc careers must recognize the importance of international talent. In addition to domestic trainees, more than half of the U.S. postdoc population is comprised of talented, international individuals who contribute to the intellectual and cultural vibrancy of the U.S. biomedical enterprise.

Fundamental issues and challenges inhibiting recruitment, retention, and overall quality of life of postdoctoral trainees in academic research.

- **Academic research careers must remain attractive.** The research environment is a decisive factor influencing the career choices of young scientists. Despite the benefits of an academic research career, postdocs will be discouraged from academic careers if they see mentors and early career scientists struggling against long-odds in grant support or in sustaining laboratories, coping with excessive administrative burden, and being out-of-balance with work/life matters. NIH should continue to emphasize programs to improve the research environment and support early-stage investigators and recently established investigators. These efforts include monitoring paylines, identifying investigators at risk for losing grant support, and supporting career development and recruitment programs.

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[2] National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. 2014. *The Postdoctoral Experience Revisited*. Washington, DC: The National Academies Press. https://doi.org/10.17226/18982.

[3] Science, Technology, Engineering, Medicine and Mathematics (STEMM)

- **Recognize the value of a postdoc.** Postdocs are highly skilled individuals that should be compensated as such. NIH should recommend that research institutions ensure that all postdocs, regardless of funding source, receive at least the NRSA stipend level with experience level increases. NIH should strengthen programs that aid postdocs directly, including childcare benefits.

- **Promote a safer and more respectful research environment.** NIH should continue to monitor awardee institutions to reduce harassment under various forms and ensure that institutions have a grievance policy in place. There have been too many reports of scientists who left academic research over abusive or unfair work experiences.

- **The importance of cultivating the next generation.** Not every reform needs a new program or mechanism; the NIH should use its prominence to communicate the excitement of a biomedical research career to those interested in this career. This is especially true for international scientists. The ability of US research to attract international scholars remains one of our most important and distinctive assets. The implementation of research security efforts should protect federal funding and research assets against undue foreign interference without targeting individual scientists based solely on country of origin.

Existing NIH policies, programs, or resources that could be modified, expanded, or improved to enhance the postdoctoral training ecosystem and academic research career pathways.

- **Strengthen mentorship**. Regardless of funding sources, institutions and mentors should provide scientific guidance and access to professional development opportunities in order to support career development[4]. NIH can encourage strong mentorship by requiring a mentorship plan to be submitted for every postdoc (and graduate student) funded on a research project grant and by providing guidelines on its research awards as to the expectations of the institutions, advisors, and trainees. The AAMC suggests that a percentage of trainee time (5 to 10%) be supported from resources outside of a research grant, or that specific funds be designated in a research grant for training, e.g., toward centralized institutional postdoc support.

- **Increase the diversity, equity, and inclusion of the research workforce**. The academic research career should be made more attractive and inclusive for scientists underrepresented in research through community building, networking opportunities, and increased transparency. The NIH should consider developing a funding mechanism to promote the development of these activities and create centralized resources that can be shared across institutions.

- **Ensure that stipends and benefits are equitable**. NRSA-funded postdocs should have the same access to benefits as employee-classified postdoctoral researchers. The NIH

[4] For example, those trainees funded on research grants should have the same guidance and access to career development opportunities as those funded on training grants.

should more clearly communicate guidance on how NRSA-funded postdocs are classified, as the current language is being interpreted by many institutions to mean that this subpopulation of postdocs cannot be classified as employees.

- **Raise the NIH NRSA stipend scale**. The NRSA stipend scale has increased over time, but has not kept up with inflation. In certain US regions, despite institutional supplementation, postdoc compensation does not meet the living wage threshold. Many institutions use the NRSA stipend scale as their institutional scale. AAMC supports an increase while recognizing that by raising the stipend scale there will likely be fewer postdocs in academia without a substantial increase in the overall NIH budget.

Proven or promising external resources or approaches that could inform NIH's efforts to enhance the postdoctoral training ecosystem (e.g., improving postdoctoral recruitment, training, working environment, mentoring, job satisfaction).

- **Cohort-based postdoctoral programs**. The AAMC applauds the NIH for launching the Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) program that brings together a cohort of K99/R00 postdoctoral scholars from diverse backgrounds as they transition from postdocs into academic research faculty positions. Along with MOSAIC, institutional postdoctoral cohort recruitment programs, such as the Stanford University PRISM program and institution-organized postdoctoral research symposiums, such as the Intersections Science Fellows Symposium provide valuable networking, peer-to-peer mentoring, and access to additional career and professional development opportunities. The NIH should consider expanding funding for cohort-based programs, particularly those that touch multiple institutions.

- **Targeted fellowship funding**. The NIH-funded Institutional Career and Academic Career Development Awards (IRACDA) has been successful in facilitating a diverse group of postdoctoral scholars to develop academic and teaching skills. Using this program as a template, the AAMC encourages the allocation of additional resources to help institutions develop and implement similar programs that may focus on other career development areas.

- **Appropriate treatment of research trainees**. A working group of the AAMC Group on Research, Education, and Training (GREAT)[5] developed the Appropriate Treatment of Research Trainees (AToRT) guide to promote inclusive and supportive training environments for postdoctoral researchers and graduate students. The AAMC encourages further dissemination of this resource.

[5] GREAT is a professional development group for leaders of biomedical research PhD, MD-PhD, and postdoctoral research training programs.

- **Use of postdoctoral compacts**. In recognition of the importance of defining and sustaining the commitments necessary for a high-quality training experience, the AAMC developed and endorsed the Compact Between Postdoctoral Appointees and their Mentors. This document provides program directors, administrators, and faculty with models to help initiate discussions at the local and national levels about the trainee-mentor relationship. It also recognizes the institutional commitment to establishing and maintaining high quality training programs. The NIH should encourage institutions to utilize existing models and resources to engage postdocs in these important conversations.

The AAMC appreciates the opportunity to submit these comments to NIH. The AAMC and its constituents are happy to stay engaged and to provide additional feedback to the NIH Advisory Committee Working Group and the NIH more broadly as it continues to consider recommendations to improve postdoctoral research training and career progression. Should you have any questions regarding this response, please contact me at rmckinney@aamc.org or Jodi Yellin, PhD, Director, Research Workforce, Training, and Science Policy, at jyellin@aamc.org

Sincerely,

Ross McKinney, Jr., MD
Chief Scientific Officer

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