Re-envisioning NIH-Supported Postdoctoral Training (ACD Postdoc WG)

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NIH Advisory Committee to the Director Meeting

December 15, 2023
Multifactorial and Complex Forces

Increasing expectations:
- Work/life balance
- Cost of living
- Limited opportunities in academia
- Lengthening time to publish
- New opportunities in pharma/biotech
- Expanding research expectations

Coronavirus (COVID-19)
Charge to the Working Group

- **Evaluate** evidence on the perceived shortage in PhDs seeking U.S. postdocs
- **Assess and consider** factors influencing the scope and persistence of the issue
- **Review and compare** other approaches to postdoctoral training
- **Consider** ways to support postdocs’ quality of life and work-life balance, increase retention
- **Engage** key internal and external parties
Working Group Activities

Review Available Data

Gather Community Feedback
  ▪ Listening Sessions
  ▪ Request for Information

Develop Guiding Principles

Develop Recommendations

Focus on those most impacted—postdocs and grad students!
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Review Available Data

- NIH Internal Data
  - Office of Extramural Research (OER)
  - NIH Data Book
- National Science Foundation (NSF)
  - Survey of Graduate Students and Postdoctorates in (GSS)
  - Survey of Earned Doctorates (SED)
- Spring Nature: 2020 & 2023 Global Postdoc Surveys
- NPA 2023 Postdoctoral Barriers to Success Survey
- Institute of International Education *Open Doors Report*
- Additional experts and reports
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Listening Sessions

1585* total registrants over 4 sessions

525+ average viewers per session

130+ average comments per session

350+ Institutions represented

Session #1: Role, Duration, Structure, and Value of the Academic Postdoc, Including Impacts on Underrepresented Populations
March 8, 2023
Invited Speakers: Dr. Esra Yalcin, Dr. Bruce Mandt, Dr. Antentor Hinton

Session #2: International Postdoc Concerns
March 10, 2023
Invited Speakers: Dr. Andrea Pereyra, Dr. Natalie Chernets, André Porter

Session #3: Compensation and Benefits, Including Child and Dependent Care
March 17, 2023
Invited Speakers: Dr. Krishna Mudumbi, Dr. Lola Eniola-Adefeso, Dr. Tori Osinski, Dr. Andrew Campbell

Session #4: Job Security, Career Prospects, and Quality of Life
March 20, 2023
Invited Speakers: Dr. Neal Sweeney, Stevie Eberle, Dr. Dawn Bonnell
Request for Information

3252 Responses

96% Individual

87% Academic

23% International

Professional Role

- Postdoc Scientist: 54%
- Graduate Student: 15%
- Biomedical Faculty: 12%
- Early-stage Investigator: 9%
- Industry Scientist: 4%
- Other: 3%
- Administrator: 3%
- Workforce Advocate: <1%

N=3252
What We Heard

- **Change is needed** to serve the needs of most postdocs
- Calls for improved *compensation and benefits* to *mitigate financial strain and ambiguity*, especially to alleviate *inequitable treatment* within and across institutions
- Need to support **international postdocs** with unique vulnerabilities
- Recommendations for **expanded academic research paths**
- Interest in **robust professional development training** and support for transitioning to next career stage, academic or not
- Requests for culture change such as **increased recognition and community building**
- Support for increased **accountability and oversight of postdoc mentors and institutions** to address power imbalances
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Working Group Goal

The working group aims to re-envision the postdoctoral experience so that it is **more sustainable and inclusive** and to **better recognize and reward the value** of postdoctoral scholars to the U.S. scientific enterprise.
Postdoc Definition and Terminology

A Postdoc is....

......an individual who has received a doctoral degree or equivalent working in a term-limited position of mentored research and professional development to prepare for an independent career usually in research and teaching.

A Postdoc is NOT...

...just a “trainee.”

*The term “postdoctoral scholar” should be used to reflect the high level of education and respect for postdocs.
Guiding Principles

1. All postdoctoral scholars should receive a wage with regular cost-of-living adjustments and employee-level benefits commensurate with their education and training regardless of NIH support mechanism or appointment.

2. Postdoctoral scholars should be welcomed into safe, diverse, equitable, inclusive, accessible, and supportive work environments free from abuse, discrimination, and harassment.

3. The postdoctoral position should be clearly defined, standardized, and tracked within and across institutions, disciplines, and funding mechanisms. The duration of postdoctoral positions should be capped at a finite number of years.

4. New or expanded funding mechanisms and resources should be available to better support the postdoctoral experience and career paths.

5. International postdoctoral scholars play an important role in the biomedical research ecosystem should have compensation and benefits that are equal to that of their counterparts who are U.S. citizens and access to more federal grant opportunities to support their research careers.

6. Professional and career development should be an integral, measured component of the postdoctoral experience that occupies a minimum percentage of the postdoctoral scholars’ time.

7. Institutions, programs, and principal investigators should be held accountable for ensuring that postdoctoral scholars receive quality mentorship and professional development opportunities. Training in mentoring skills should be strongly promoted for those who serve in a mentor role to postdoctoral scholars or who work as leaders in postdoc offices, and for the postdoctoral scholars themselves.
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Focus on those most impacted—postdocs and grad students!
Recommendations

**Recommendation 1:** Increase pay and benefits for all NIH-supported postdoctoral scholars.

**Recommendation 2:** Create and expand mechanisms to support the full talent pool of postdoctoral scholars.

**Recommendation 3:** Facilitate transition of postdoctoral scholars into their next career stage, including roles beyond academic faculty.

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

**Recommendation 5:** Support safe and diverse perspectives and research environments within institutional research programs.

**Recommendation 6:** Improve means to measure and share postdoctoral scholars’ career progression.
Timelines

- WG assigned each recommendation/sub-recommendation an intended timeline
  - **Short term**: should occur ASAP, ideally within 1-2 fiscal years
  - **Long term**: may be more complex and require a longer implementation window
- Most recommendations have components of both
**Recommendation 1:** Increase pay and benefits for all NIH-supported postdoctoral scholars

1.1. Increase salary annually adjusted to inflation, including a minimum $70,000 NRSA postdoctoral stipend in 2024
   - Encourage standardization of NRSA level as minimum for all NIH-supported postdocs

*Top Priority*
Recommendation 1: Increase pay and benefits for all NIH-supported postdoctoral scholars

1.2. Provide full-time employee-level benefits for all NIH-supported postdoctoral scholars

- Regardless of funding mechanisms, discipline, citizenship/immigration status, require institutions to either:
  - Employ all NIH-supported postdoctoral scholars directly or
  - Provide full-time employee-level benefits (minimum: health, vision, dental, dependent care coverage, retirement savings plans)

- Increase benefits package provided to NRSA
Recommendation 1: Increase pay and benefits for all NIH-supported postdoctoral scholars

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, including time spent in different host institutions.

*Postdoc Definition:* An individual who has received a doctoral degree or equivalent working in a term-limited position of mentored research and professional development to prepare for an independent career usually in research and teaching.

- Standard definition to prevent “gaming”
- Provide extensions for significant life events
Recommendation 2: Create and expand mechanisms to support the full talent pool of postdoctoral scholars

2.1. Develop new and expanded K mechanisms for both institutions and individuals
   - Recruit/retain scholars from diverse populations, including international
   - Create new K12-like awards to support cohorts of underserved populations
   - Create new K awards for individuals at universities without an institutional award

2.2. Revise the K99/R00 mechanism to focus on ideas and creativity over productivity
   - Limit eligibility window for first 2 years of postdoctoral experience
   - Adapt processes/policies to increase diversity of awardees
   - Pilot new transition award mechanism (e.g., F99/K00/R00)
Recommendation 2: Create and expand mechanisms to support the full talent pool of postdoctoral scholars

2.3. Create and expand support mechanisms for international postdoctoral scholars
   • Expand eligibility to include international postdoctoral scholars for all mechanisms where legally and programmatically possibly OR develop targeted mechanisms to fund them to recruit/retain international talent
   • Provide support for immigration-related issues
   • Extend contracts to international postdocs to at least 3 years
Recommendation 3: Facilitate the transition of postdoctoral scholars into their next career stage, including roles beyond academic faculty

3.1. Increase support for a research professional career track, e.g., staff scientist
   • Support policy, infrastructure, funding mechanisms, culture change for research professional career tracks
   • Create pilots to support these career tracks

3.2. Create engagement with sectors that hire biomedical doctorate-holders and postdoctoral scholars
   • Collaborate with industry, non-profits, patient advocacy groups, etc.
   • Explore novel collaborative funding paths
Recommendation 4: Promote training and professional development of postdoctoral scholars and their mentors

4.1. Require institutions to ensure that career and professional development occupies a minimum average of 10% of a postdoctoral scholar’s effort and create policies and resources to ensure equitable access to this training.
   • Should be supported by institution, directed by individual
   • Expand regional/national/institutional infrastructure

4.2. Promote and ensure accountability for mentoring responsibilities.
   • Could include reporting as part of RPPRs, submitting mentorship plans in grant applications, etc.
**Recommendation 5:** Support safe and diverse perspectives and research environments within institutional research programs

5.1. Require institutions to provide safe research environments free of harassment.
   - Build upon existing NIH policies to continue ensuring accountability for civil treatment of postdoctoral scholars

5.2. Require institutions to support and foster diverse perspectives.
   - Monitor to ensure implementation of Recommendation 1 does not disproportionately impact scholars from diverse backgrounds
   - Continue internal-NIH efforts (e.g., UNITE)
   - Require extramural institutions to support diverse perspectives
   - Address unique needs of international postdocs
Recommendation 6: Improve means to measure and share postdoctoral scholars’ career progression

- Improve data collection in collaboration with institutions and NSF, including:
  - Administrative data
  - Career outcomes

- Improve communication between NIH, postdoctoral scholars, and institutions
  - Clarify and broadly disseminate information on federal policies
  - Consider creation of centralized portal
Conclusion & Next Steps

- NIH should boldly meet the need for significant change to improve conditions for postdoctoral scholars and the entire academic enterprise.
- Where NIH alone cannot directly implement recommendations, NIH should engage key partners.
- Need to simplify, clarify, and broadly communicate NIH’s policies and expectations of institutions and individuals.
- Build accountability through robust, bi-directional engagement.
ACD Postdoc Working Group

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Executive Secretaries: Brittany Chao, DPhil & Laura Long, PhD; Joel Islam, PhD (past)
Acknowledgments

- Executive Secretaries—Brittany Chao, Laura Long, Joel Islam (past)
- Meeting support and report editing—Lorjetta Schools
- Support for RFI analysis and listening sessions
- Speakers & data contributors
- Previous groups for laying the ground – BMW, NGRI
- All members of the community who engaged to provide input
Questions & Discussion