



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

Shelley Berger, PhD & Tara A. Schwetz, PhD  
NIH Advisory Committee to the Director Meeting

*December 15, 2023*

# Multifactorial and Complex Forces



Limited opportunities  
in academia



Lengthening time to  
publish



Increasing expectations:  
Work/life balance  
Cost of living



New opportunities in  
pharma/biotech



Expanding research  
expectations

# 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

Focus on those most impacted—  
postdocs and grad students!

## Develop Guiding Principles

## Develop Recommendations

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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%**

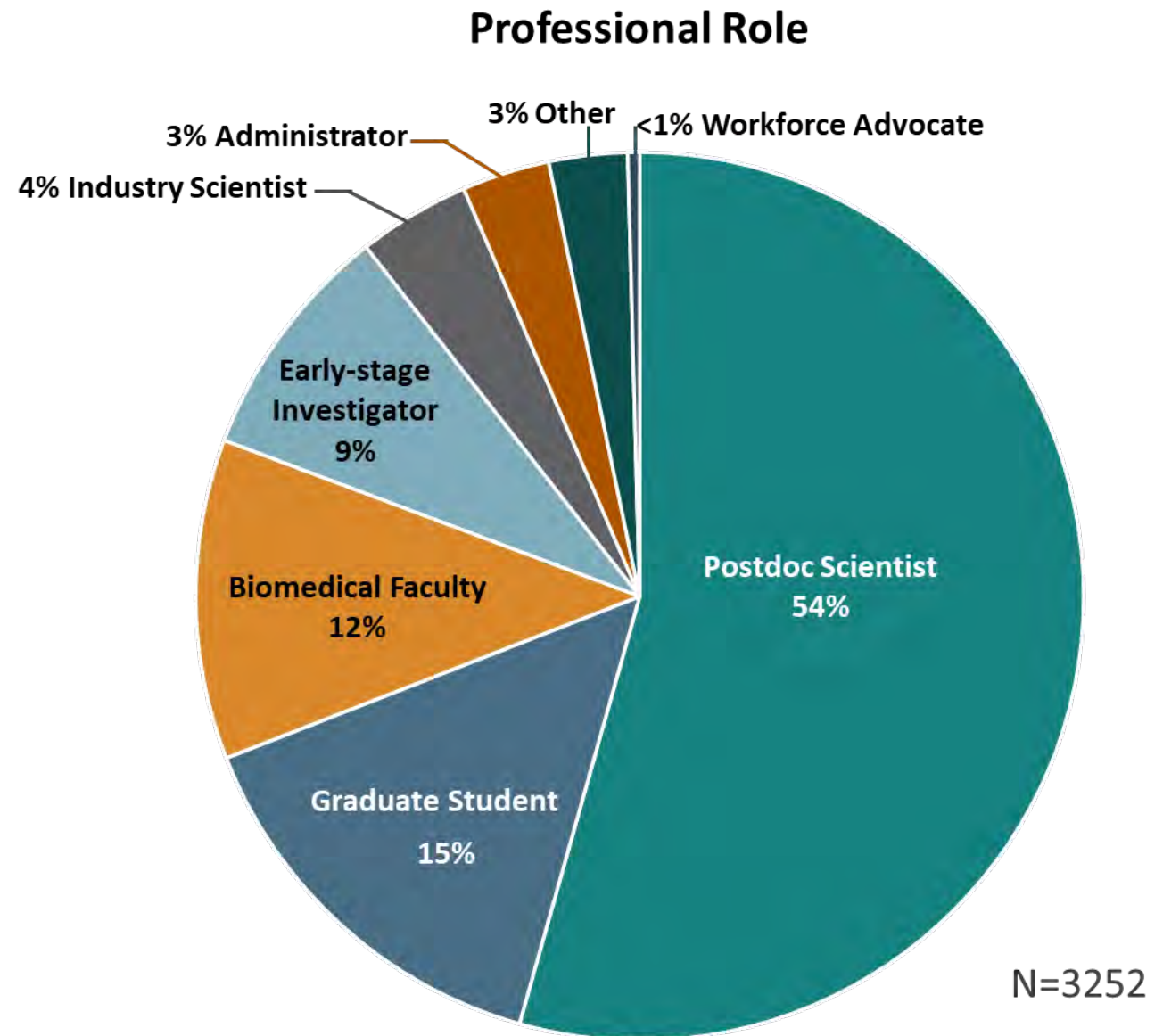
Individual

**87%**

Academic

**23%**

International



# 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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# 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 possible 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

*\*ex officio*

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# Questions & Discussion