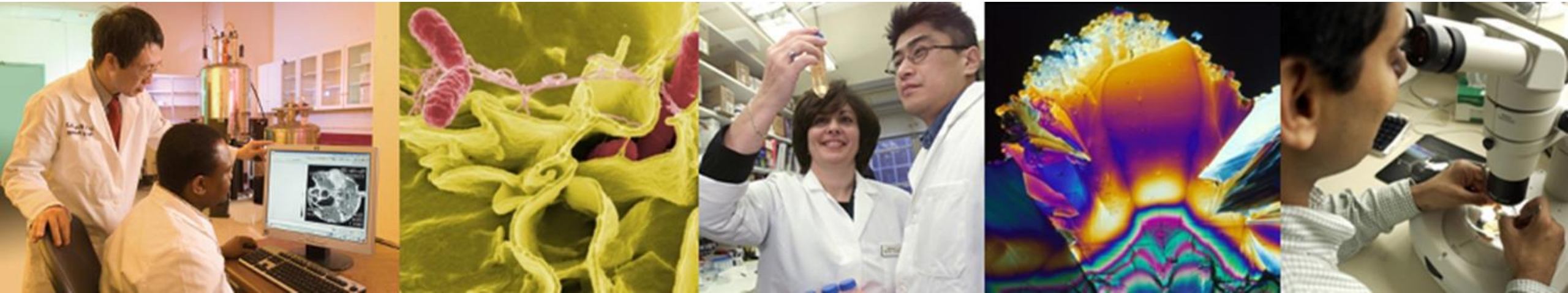# Supporting the Future of Science:
The Next Generation Researchers Initiative

Health Research Alliance Members Meeting
March 28, 2019
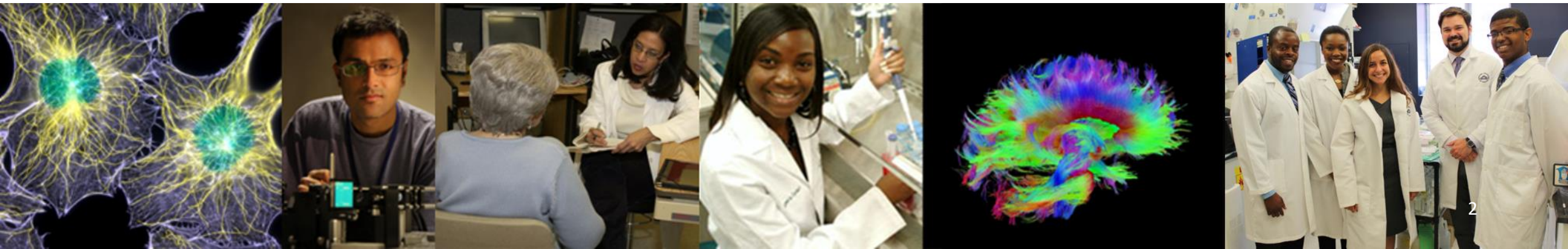

Lawrence A. Tabak, D.D.S., Ph.D.

Principal Deputy Director, NIH

Today's Presentation Will Cover…
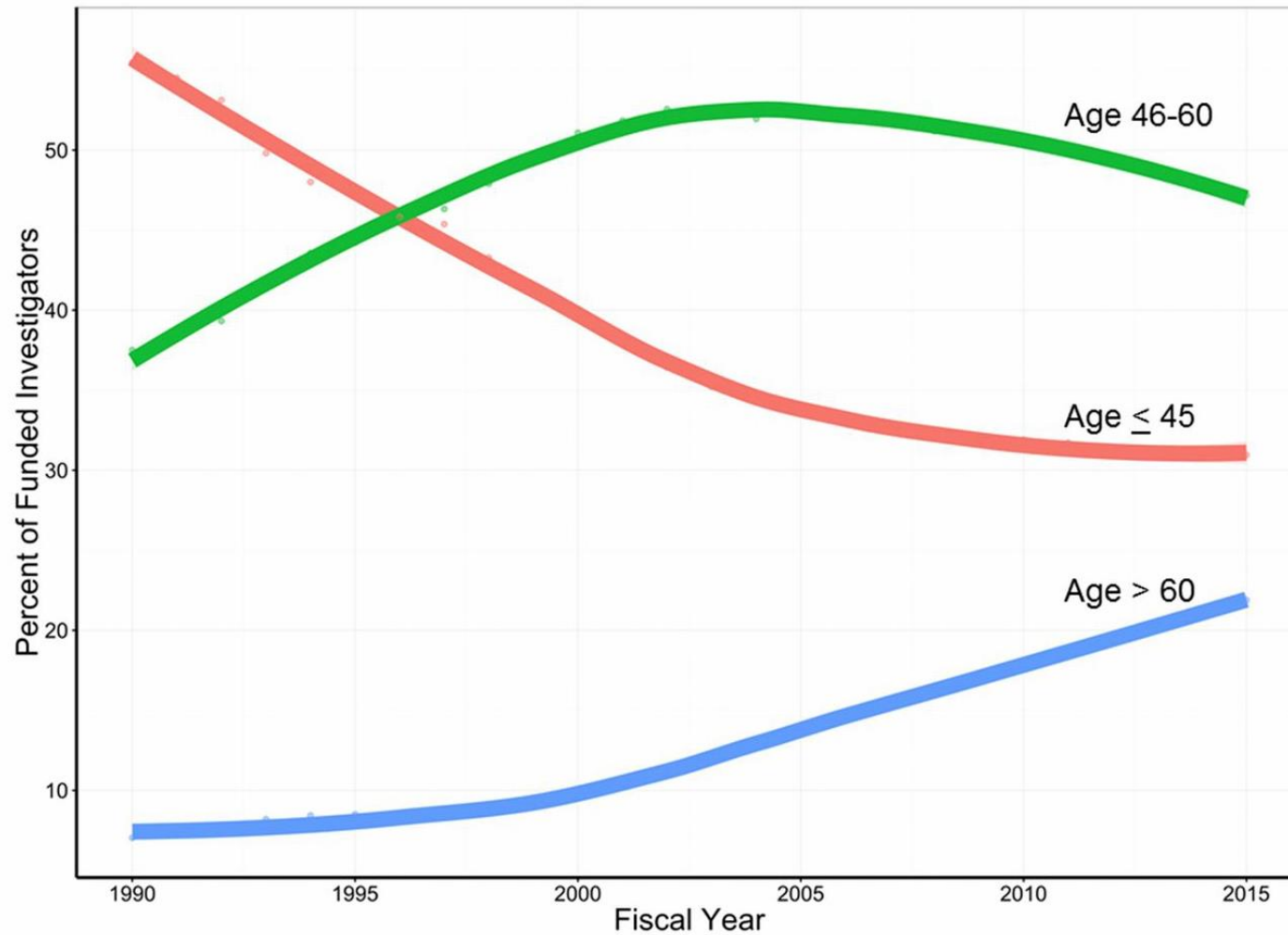
- Background: the NIH Next Generation Researchers Initiative

- Selected Working Group Recommendations & NIH Activities

- How Might HRA Member Societies Leverage These Recommendations?

Background: Long-standing NIH interest in supporting the next generation of researchers

- New Investigator/Early Stage Investigator policies
- Programs for transitions to independent careers
  - K99/R00
  - NIH Director's awards for high-risk, high-reward research
- Strategies to manage existing resources
  - Special Council Review
- ACD Biomedical Workforce report (2012)
- ACD Diversity working group – initial report 2012 -- remains active

Percent of NIH funded investigators, by age, 1990-2015

NIH's Next Generation Researchers Initiative

- 21st Century Cures Act: Section entitled, *Investing in the Next Generation of Researchers*, established the Next Generation of Researchers Initiative within the Office of the NIH Director, and National Academies of Sciences study

- NIH Advisory Committee to the NIH Director (ACD) working group convened to inform the NIH initiative

- Working group considered and discussed input from the National Academies of Sciences and *Breaking Through r*eport
  - Several recommendations have synergy with NAS report

- Today's talk will in particular highlight ACD recommendations with potential opportunities for action by non-profit research funders

The Next Generation Researchers Initiative Working Group

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Northern Kentucky
University

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Postdoctoral PRAT
Fellow
NIMH/NIBIB, NIH

Jose C. Florez, MD, PhD,
Chief, Diabetes Unit
MGH
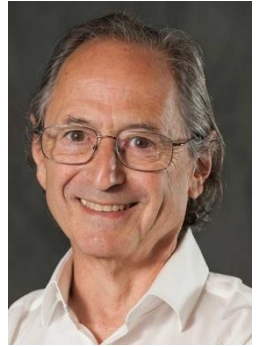Professor, HMS

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NGRI WG Recommendations: 5 Major Themes

- *Theme 1: Modify the Original NGRI policy*
- *Theme 2: Develop Methods to Identify and Support "At-Risk" Investigators and Early Stage Investigators*
- *Theme 3: Promote Sustainable Training Opportunities that Incorporate Diversity and Inclusion*
- *Theme 4: Monitor Outcomes and Optimize Workforce Stability Through Improved Metrics And Further Research*
- *Theme 5. Continue Transparency Efforts and Engagement with Scientists Across Career Stages to Inform Policy Decisions*

Theme 1: Modify the Original NGRI policy

1.3. Introduce the definition of "at-risk" applicants, taking into account the duration of their investigative career

- These are applicants with meritoriously-scored applications who would not have major NIH research funding if the application under consideration is not awarded
- Recommend special funding consideration given at programmatic/IC-level
  - This status is not shown to peer reviewers – concern that "at-risk" label may cause peer reviewers to judge applications differently
- Intent is to <u>sustain</u> funding to meritorious researchers, particularly those in the earlier stages of their career, still establishing independence

Theme 2: Develop Methods to Identify and Support "At-Risk" Investigators and Early Stage Investigators

2.1. Expand pathways for funding ESIs through programs that do not require preliminary data

- Inspired by NASEM DP2 recommendation, and subsequent discussion
- Instead: Encourage independent lines of investigation, such that the applicant would not feel obligated to use the preliminary data from their postdoctoral training, but could branch out into a new line of research

Theme 3: Promote Sustainable Training Opportunities that Incorporate Diversity and Inclusion

3.7. Ensure that POs interact equitably with all investigators, including ESI and at-risk investigators, and persons from underrepresented groups

3.8. Require broad and recurrent evidence-based training on unconscious bias for POs, SROs, and peer reviewers, and include this as a required component of RCR training for both mentors and trainees

💬 These recommendations identify ways that we as funders can support diversity and inclusion

Theme 3: Promote Sustainable Training Opportunities that Incorporate Diversity and Inclusion

3.10. Require R13 <u>(conference grant)</u> applications to describe what best practices for a safe and harassment-free environment will be employed at conferences and professional meetings

🗩 Safe and harassment-free research environments – both in the lab and at conferences supported by our funding – are an integral part of supporting the next generation of scientists.

The WG had extensive discussions about the negative impact of sexual harassment that go beyond the training environment alone

- Update on NIH's efforts to address sexual harassment in science
  - Issued an NIH Director's Statement on our commitment to
    - Demonstrating accountability and transparency
    - Clarifying expectations for institutions and investigators to ensure a safe workplace and inform the agency
    - Providing clear channels of communications to NIH
    - Listening to victims and survivors of sexual harassment and incorporating their perspectives into future actions

The WG had extensive discussions about the negative impact of sexual harassment that go beyond the training environment alone

- Update on NIH's efforts to address sexual harassment in science
  - Sent letter to NIH-funded Institutions; among the points made:
    - NIH clarified *expectations that institutions and investigators ensure a safe workplace and keep the agency well-informed. We expect that institutions will embrace their responsibilities to end all harassment in their own scientific workplace.*
    - We can and will take action if there are concerns that sexual harassment is affecting NIH-funded research. For concerns related to NIH-funded research, an email can be sent to GranteeHarassment@od.nih.gov We are working to create additional channels intended for confidential sharing of such information and hope to make those available in the next several weeks.

5.1. Increase accessibility of NIH administrative data for both members of the biomedical research community and researchers investigating biomedical science

Request for Information (RFI) Seeking Stakeholder Input on the Need for an NIH Administrative Data Enclave

Notice Number: NOT-OD-19-085

Key Dates
Release Date: March 1, 2019
Response Date: May 30, 2019

Related Announcements
None

Issued by
National Institutes of Health (NIH)

Purpose

The National Institutes of Health (NIH), Office of the Director, Office of Extramural Research (OER) issues this interest in NIH expending funds to develop, host, and maintain a secure environment (data enclave) that would controlled access to structured, de-identifiable NIH administrative and scientific information not made available to the public.

Identify opportunities for additional transparency into funding programs (e.g., NIH posts yearly updates on success rates by activity code, by location, as well as data on the NIH-funded workforce.)

Theme 5. Continue Transparency Efforts and Engagement with Scientists Across Career Stages to Inform Policy Decisions

5.4. Appoint scientists from across career stages and life experiences to NIH working groups and committees

Early-career and mid-career perspectives enhance policy and program development

Recommendations for the Broader Biomedical Research Community

- For research organizations to examine hiring and recruitment practices to better support a diverse and strong future biomedical research workforce

- For research organizations to explore ways to create and support staff scientist positions, and incentivize the recruitment and hiring of staff scientists

- The working group supports initial efforts by universities to collect and add transparency to their own workforce data

Closing Thoughts from Working Group Members

- Not one size fits all -- fields are different, have specialized needs, and will continue to evolve with time

- Pro-sustainability, pro-non-harassment, pro-diversification in every conceivable way
    - Consideration of workforce diversity and inclusivity is part and parcel of workforce policy

- Accountability and transparency are also paramount, from all stakeholders (NIH and research organizations, alike)

- Recommendations embody a person-based view of research, not just a research-based view of research

Next Steps

- NGRI FY 2018 results show the effect of setting a target number of ESIs to fund

ESI Awardees (R01 Equivalents)
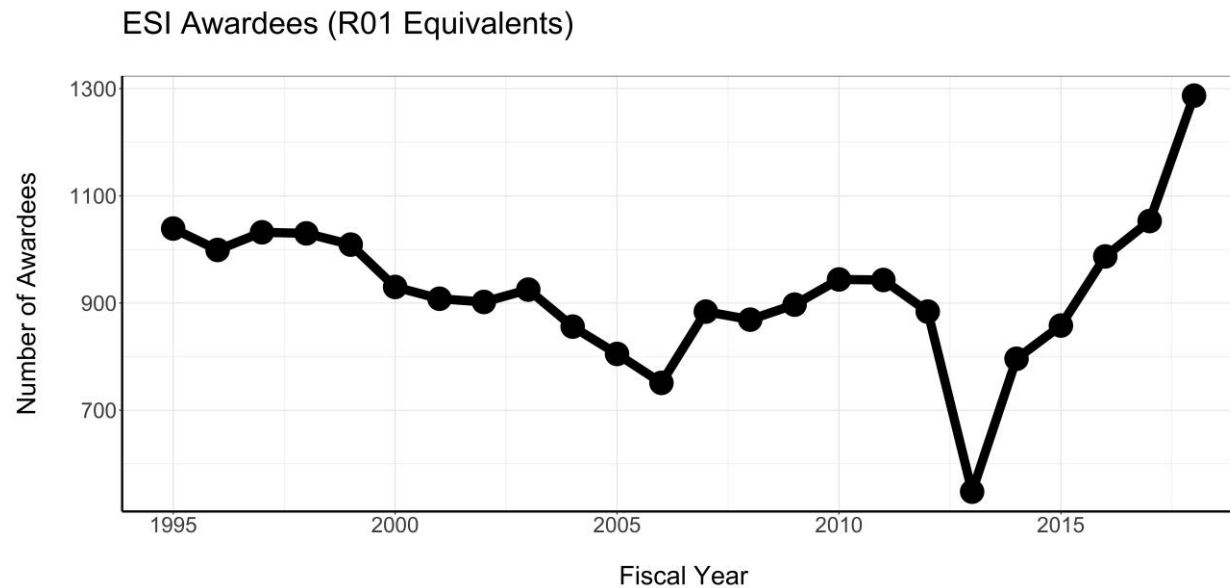
- NIH continuing to consider all recommendations with input from across NIH Institutes and Centers

Links to additional resources

- NIH Director's Statement-- https://www.nih.gov/about-nih/who-we-are/nih-director/statements/update-nihs-efforts-address-sexual-harassment-science

- NIH Anti-Harassment website: https://www.nih.gov/anti-sexual-harassment

- ACD Biomedical Workforce report (2012): https://acd.od.nih.gov/documents/reports/Biomedical_research_wgreport.pdf

- ACD Diversity working group & reports: https://acd.od.nih.gov/working-groups/wgd.html

- ACD Next Generation Researchers Initiative Report (2018): https://acd.od.nih.gov/documents/presentations/12132018NextGen_report.pdf
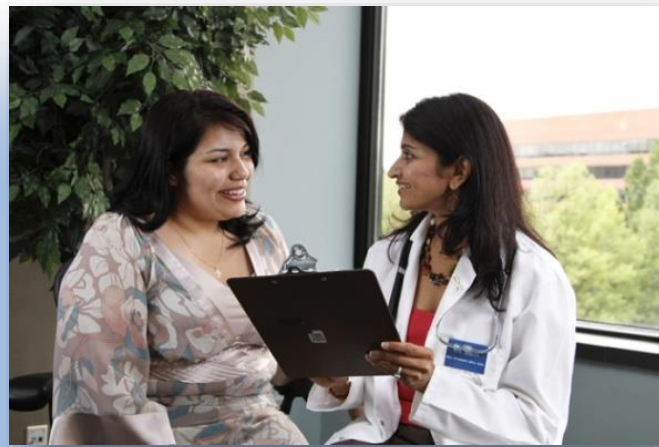
NIH...

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Turning Discovery Into Health