

Marie A. Bernard, MD, Chief Officer for Scientific Workforce Diversity and Co-Chair, NIH unite



nih.gov/ending-structural-racism









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- Two self-assembled affinity groups at NIH (8CRE, AA/B Scientists) and the Anti-Harassment SC met with NIH leadership for candid discussions that informed next steps
- We have arrived at a shared commitment to address structural racism: we must not allow this pivotal moment to pass





Initial Issues Identified:







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- We must ensure that biomedical research, and the administrative system that supports it, is devoid of hostility grounded in race, sex, and other federally protected characteristics
- In this new initiative, we are committed to delineate elements that may perpetuate structural racism in biomedical research both within NIH and the extramural community leading to a lack of personnel inclusiveness, equity, and diversity







Initial Issues Identified:

- All ideas must be given an equal and fair review, without regard to current dogma, precedents, or who presents the ideas
- As COVID-19 has made painfully clear, health disparities and inequities continue to contribute to morbidity and mortality in our nation, making it essential to redress the fundamental causes of these disparities/inequities and identify research programs that could identify effective interventions





- <u>Understanding stakeholder experiences through listening and learning</u>
- New research on health disparities/minority health/health equity
 - Improving the NIH Culture and Structure for Equity, Inclusion, and Excellence
- T <u>Transparency</u>, communication, and accountability with our internal and external stakeholders
- E <u>Extramural Research Ecosystem: Changing Policy</u>, Culture, and Structure to Promote Workforce Diversity



Initial UNITE Recommendations



 Publicly commit to identifying and correcting any NIH policies or practices that may have helped to perpetuate structural racism



Acknowledgement



"To those individuals in the biomedical research enterprise who have endured disadvantages due to structural racism, I am truly sorry. NIH is committed to instituting new ways to support diversity, equity, and inclusion, and identifying and dismantling any policies and practices at our own agency that may harm our workforce and our science."

Francis S. Collins, M.D., Ph.D., NIH Director

https://www.nih.gov/ending-structural-racism





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- Continue to aggressively implement approaches to address the "Ginther Gap" and enhance portfolio diversity





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- Launch a multi-phased, -tiered, and -integrated Common Fund Initiative focused on transformative health disparities research initiatives to reduce health disparities/ inequities







NIH Common Fund Transformative Research to Address Health Disparities and Advance Health Equity – Committed up to \$24M

Two FOAs released 3/26/21:

- 1) RFA-RM-21-021 Transformative Research to Address Health Disparities and Advance Health Equity (U01 Clinical Trial Allowed) - https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-21-021.html
- 2) RFA-RM-21-022 Transformative Research to Address Health Disparities and Advance Health Equity at Minority Serving Institutions (U01 Clinical Trial Allowed) https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-21-022.html





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- Ensure a robust NIH Enterprise-wide commitment to support the NIMHD FOA focused on the effects of structural racism and discrimination on health disparities/ inequities; encourage funding levels that are commensurate with overall IC resources



Action



Funding Opportunity Title	Understanding and Addressing the Impact of Structural Racism and Discrimination on Minority Health and Health Disparities (R01 Clinical Trial Optional)		
Activity Code	R01 Research Project Grant		
Announcement Type	New	With the commitment of up to	
Related Notices	None	\$30.8 M by 25 ICOs:	
Funding Opportunity Announcement (FOA) Number	RFA-MD-21-004	 Letters of intent due 7/20/2 Applications due 8/24/21 	
Companion Funding Opportunity	None	- Applications due 6/24/21	
Number of Applications	See Section III. 3. Additional Informat	ion on Eligibility.	

https://grants.nih.gov/grants/guide/rfa-files/RFA-MD-21-004.html



Action – BRAIN FOA

First NIH FOA using Plan to Enhance Diverse Perspectives as a consideration for scoring

Department of Health and Human Services

Part 1. Overview Information



Funding Opportunity Title https://grants.nih.gov/grants/guide/rf a-files/RFA-MH-21-180.html BRAIN Initiative: Reagent Resources for Brain Cell Type-Specific Access and Manipulation to Broaden Distribution of Enabling Technologies for Neuroscience (U24 Clinical Trial Not Allowed)



Initial UNITE Recommendations



- Publicly commit to identifying and correcting any NIH policies or practices that may have helped to perpetuate structural racism – *Published 3/1/21*
- Continue to aggressively implement approaches to address the "Ginther Gap" and enhance portfolio diversity *Ongoing*
- Launch a multi-phased, -tiered, and -integrated Common Fund Initiative focused on transformative health disparities research initiatives to reduce health disparities/ inequities – RFAs published 3/26/21
- Ensure a robust NIH Enterprise-wide commitment to support the NIMHD FOA focused on the effects of structural racism and discrimination on health disparities/ inequities; encourage funding levels that are commensurate with overall IC resources – RFA published 3/23/21 with 25 ICOs
- Develop a sustainable process to systematically gather and make public the demographics of our internal and external workforce



<mark>Action — NIH Data b</mark> Status	<mark>y Race/E</mark>	<mark>thnic</mark>	<mark>ity, D</mark>	<mark>isabi</mark>	lity	
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	records found.					https://report.nih.gov/sites/report/f iles/docs/NIH_Principal_Investigator
Report Title Research Grant Investigators by Mechanism, Gender, Race, Ethnicity, and Disability Status, FY2016-FY2020	Topic Investigators, Funded Investigators, Funding Rates Investigators, Gender Investigators, Race/Ethnicity	Gender	<u>Start Year</u> 2016	End Year 2020	Format VIEW REPORT	<u>s by Gender Race Ethnicity and</u> <u>Disability 2016-</u> 2020 02 23 2021 PDF.pdf

nih.gov/ending-structural-racism The NIH UNITE Initiative to Strengthen Diversity, Equity, and Inclusion: Together, We're Stronger

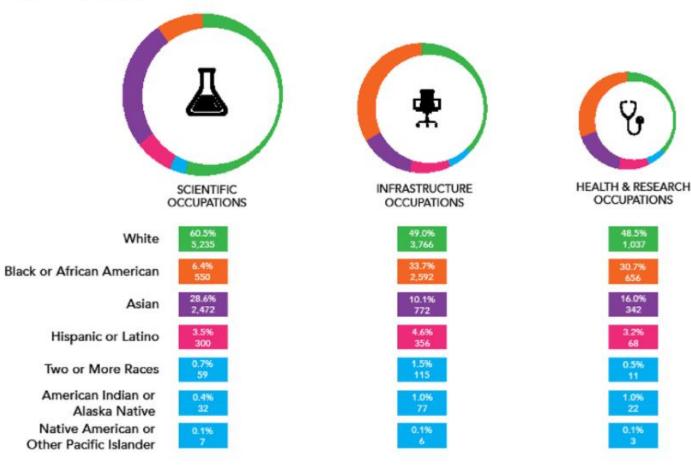
Mechanism Race/Ethnicity



-

Action – NIH Internal Data FY 21, Q2

RACE / ETHNICITY





https://www.edi.nih.gov/people/res ources/advancing-racial-equity/nihworkforce-profile-fy21q02

Employees classified in the five racial groups or Two or more races are all non-Hispanic or Latino. Employees classified as Hispanic or Latino may identify with any combination of the five racial categories.



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The NIH UNITE Initiative to Strengthen Diversity, Equity, and Inclusion: Together, We're Stronger



UNITE Recommendations and Actions Going Forward

nih.gov/ending-structural-racism The NIH UNITE Initiative to Strengthen Diversity, Equity, and Inclusion: Together, We're Stronger











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- Develop actionable data dashboards that track and provide visualizations of intramural workforce and NIH HD/MH/HE research investments with key performance indicators and metrics





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- Additional FOAs that focus on IC-specific disease/topic areas related to HD/MH/HE



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- Additional FOAs that focus on IC-specific disease/topic areas related to HD/MH/HE
- Develop programs to spur institutional culture change in support of inclusivity and equity





Faculty Institutional Recruitment for Sustainable Transformation (FIRST)

Overarching Goal

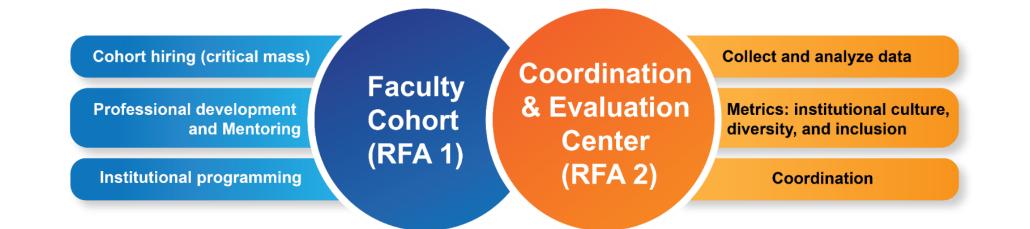
• Create cultures of inclusive excellence

Program Objectives:

- Faculty cohort model for hiring, multi-level mentoring, professional development
- Integrated, institution-wide systems to address bias, faculty equity, mentoring, and work/life issues
- Coordination and Evaluation Center (CEC): Independent program evaluation - faculty and institutional level

Estimated Funds Available: \$241 M over 9 years

FIRST – Program Structure



Cohort Features

- Institutional cohort \geq 10
 - <u>></u>120 new hires over 3 years (nationally)
- Mentoring, sponsorship
- Community building to limit isolation
- Enhanced networking for career advancement

Example Faculty Metrics

- Time to tenure, tenure rate
- Research productivity, bibliometrics
- Time to independent funding
- Interdisciplinary collaborations

Culture/Climate Metrics

• Culture: e.g., C-Change metrics

Three Levels of Analysis

- Cohort
- Departmental
- Institution-wide

FIRST – FY 22 Solicitation

Department of Health and Human Services

Part 1. Overview Information

Participating Organization(s)	National Institutes of Health (NIH)
Components of Participating Organizations	Office of Strategic Coordination (Common Fund) This Funding Opportunity Announcement (FOA) is developed as a Common Fund initiative (https://commonfund.nih.gov/) through the Office of the NIH Director, Office of Strategic Coordination. All NIH Institutes and Centers participate in Common Fund initiatives. The FOA will be administered by a trans-NIH team, which will be led by the National Cancer Institute (NCI) on behalf of the NIH.
Funding Opportunity Title	NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program: FIRST Cohort (U54 Clinical Trial Optional)
Activity Code	U54 Specialized CenterCooperative Agreements
Announcement Type	Reissue of RFA-RM-20-022

https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-21-025.html





CellPress

Leading Edge

Commentary Affirming NIH's commitment to addressing structural racism in the biomedical research enterprise

Francis S. Collins,^{1,*} Amy Bany Adams,² Courtney Aklin,³ Trevor K. Archer,⁴ Marie A. Bernard,^{5,6} Ericka Boone,⁷ John Burklow,⁸ Michele K. Evans,⁶ Sadhana Jackson,^{2,9} Alfred C. Johnson,¹⁰ Jon Lorsch,¹¹ Mia Rochelle Lowden,¹² Anna María Nápoles,¹³ Anna E. Ordóñez,¹⁴ Robert Rivers,¹⁵ Victoria Rucker,^{5,16} Tara Schwetz,³ Julia A. Segre,¹⁷ Lawrence A. Tabak,³ Monica Webb Hooper,¹³ Carrie Wolinetz,³ and NIH UNITE

DOI: 10.1016/j.cell.2021.05.014 (2021).



UNITE Going Forward



• Advisory Committee to the Director presentation, 6/11/21 https://videocast.nih.gov/watch=42270.

 Full UNITE Power Point presentation - <u>https://www.acd.od.nih.gov/documents/presentations/061120</u> <u>21 UNITE.pdf</u>.





Injustice anywhere is a threat to justice everywhere

Martin Luther King, Jr





The NIH UNITE Initiative

UNITE Co-Chairs

- Marie A. Bernard, NIH Office of the Director/Office of Scientific Workforce Diversity
- Alfred Johnson, NIH Office of the Director/ Office of Management
- Lawrence Tabak, NIH Office of the Director

UNITE Program Manager

• Victoria Rucker, Center for Information Technology/ NIH Office of the Director

UNITE Program Support

- Jordan Gladman, NIH Office of the Director
- Marzjah Esther, NIH Office of the Director
- Courtney Aklin (IMOD/OD) Mia Rochelle Lowden (ORIP/OD) Monica Webb Hooper (NIMHD) Shelli Avenevoli (NIMH) Dexter Collins (FIC) Laura Cooper (NIAMS) Kevin Davis (CIT) Michele K. Evans (NIA) Anna María Nápoles (NIMHD) Robert Rivers (NIDDK) Gwen Bishop (NIDCD) Vence Bonham (NHGRI) Juanita Chinn (NICHD) Janine Clayton (ORWH/OD) Kathy Etz (NIDA)

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Trevor Archer (NIEHS) Marie A. Bernard (COSWD/OD) **Treava Hopkins-Laboy** (EDI/OD) Talin Barnes (NIEHS) Gwyn Collins (NCI) Charles Egwuagu (NEI) Courtney Fitzhugh (NHLBI) Kenneth Gibbs (NIGMS) Bernard Harper (CC) Kendall Hill (CSR) Camille Hoover (NIDDK) Shawn Lewis (NINR) Marguerite Matthews (NINDS)

Shaun Sims (NIBIB) +Melissa Espinoza (NIA)

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Amy Bany Adams (NINDS) John Burklow (IMOD/OD) Sadhana Jackson (NINDS, NCI) Mohammed Aiyegbo (NIAID) Albert Avila (NIDA) Samantha Calabrese (NICHD) Nelvis Castro (NCI) Angie Cruz-Albertorio (NCATS) Carla Garnett (OCPL/OD) Carl Hashimoto (OIR/OD) Nakia Makonnen (NIDCD) Eric Refsland (NIAID) Eric Sid (NCATS) Wayne Wang (NHLBI) Cassie Williams (NIAAA) +Jesse Isaacman-Beck (IMOD/OD)



Ericka Boone (OER/OD) Jon Lorsch (NIGMS) Anna E. Ordóñez (NIMH) Eddie Billingslea (ORWH/OD) Tiffany Calvert (NIBIB) Rena D'Souza (NIDCR) Zeynep Erim (NIBIB) Leonardo Garzon-Velez (FIC) Bettie Graham (NHGRI) Leah Hubbard (NCI) Patricia Jones (NIA) Vonda Smith (CSR) James Washington (NINDS) Maryam Zaringhalam (NLM) +Mark Stevens (OM/OD)

> Committee Co-Chairs +Staff Leads



Leslie Littlejohn (NIAMS)

Troy Muhammad (NCI)

Roland Owens (OIR/OD)

Kelly Ten Hagen (NIDCR)

+Cara Finley (IMOD/OD)

+Vanessa Marshall (NIMHD)

+Kamilah Rashid (IMOD/OD)

+Stephanie Land (NCI)

Ian Myles (NIAID)

Brian Trent (NEI)

Della White (NCCIH)





Developing a Pipeline of Diverse Investigators and Leaders in Pragmatic Clinical Trials Perspectives from the NHLB

George A. Mensah, MD, FACC Director Center for Translation Research and Implementation Science (CTRIS) National Heart, Lung, and Blood Institute (NHLBI), NIH



Presented at the NIH Collaboratory's Special Grand Rounds Series July 30, 2021



National Heart, Lung and Blood Institute

Disclaimer and Disclosure Statements

- I have no conflicts of interest to disclose.
- The contents of this presentation should not be construed as representing an official position of the NIH or the United States
 Department of Health and Human Services.





Center for Translation Research and Implementation Science (CTRIS)

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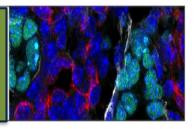
Center for Translation Research and Implementation Science (CTRIS)

The Eight Strategic Objectives National Heart, Lung, and Blood Institute

Objective 1: Normal Biology



Objective 2: Pathobiology, Onset, & Progression of HLBS diseases



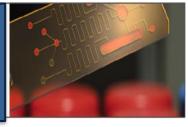
Objective 3: Population Differences



Objective 4: Precision Medicine



Objective 5: Novel Diagnostics & Therapeutics



Objective 6: Clinical & Implementation Research



Objective 7: Data Science



Objective 8: Workforce & Resources





National Heart, Lung, and Blood Institute

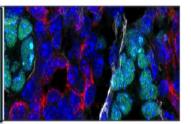
https://www.nhlbi.nih.gov/about/strategic-vision

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National Heart, Lung, and Blood Institute

https://www.nhlbi.nih.gov/about/strategic-vision

An Excellent Starting Point for Appreciating the Challenges and Potential Solutions for Building the Pipeline

RESEARCH ARTICLE

Open Access



National Heart, Lung and Blood Institute

Pragmatic clinical trials embedded in healthcare systems: generalizable lessons from the NIH Collaboratory

Kevin P. Weinfurt^{1,2,3*}, Adrian F. Hernandez^{2,4}, Gloria D. Coronado⁵, Lynn L. DeBar⁵, Laura M. Dember⁶, Beverly B. Green⁷, Patrick J. Heagerty⁸, Susan S. Huang⁹, Kathryn T. James⁸, Jeffrey G. Jarvik⁸, Eric B. Larson¹⁰, Vincent Mor¹¹, Richard Platt¹², Gary E. Rosenthal¹³, Edward J. Septimus¹⁴, Gregory E. Simon⁷, Karen L. Staman¹⁵, Jeremy Sugarman¹⁶, Miguel Vazquez¹⁷, Douglas Zatzick¹⁸ and Lesley H. Curtis^{2,4}

Weinfurt et al. BMC Medical Research Methodology (2017) 17:144

Other Ideas for Improving Health Care System Participation in Embedded PCT Research & Supporting Diversity & Inclusion



The NEW ENGLAND JOURNAL of MEDICINE

Richard Platt, MD, Gregory Simon, MD, and Adrian Hernandez, M.D.

- Expand the workforce at both the <u>leadership and implementation levels</u> to accommodate the added workload of sustaining participation in embedded PCTs.
- Support permanent PCT infrastructure in health systems that serve traditionally marginalized populations, such as FQHCs.
- The NIH, PCORI, FDA, and <u>public–private partnerships</u> can help develop and support the needed platforms.

Platt, Simon, Hernandez. <u>N Engl J Med</u>. Jul 1 2021;385(1):5-7.

Use the Lessons Learned from the NIH Collaboratory to Support Education and Training in PCTs for Diverse Investigators

1. Because there are few research teams with the knowledge and experience to conduct successful PCTs, it is critical to first create and support a larger pool of competent PCT research teams.



Adapted from: Weinfurt et al. <u>BMC Medical Research Methodology</u> (2017) 17:144

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- 1. Because there are few research teams with the knowledge and experience to conduct successful PCTs, it is critical to first create and support a larger pool of competent PCT research teams.
- 2. Form strategic partnerships with health care systems with a track record of serving and supporting **underserved communities** and those linked with **minority-serving institutions** that focus on clinical research.



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- 2. Form strategic partnerships with health care systems with a track record of serving and supporting **underserved communities** and those linked with **minority-serving institutions** that focus on clinical research.
- **3. Incentivize the few existing PCT experts** to devote time to teaching and mentoring diverse clinical investigators and trainees along the pipeline.

NIH National Heart, Lung and Blood Institute

Adapted from: Weinfurt et al. BMC Medical Research Methodology (2017) 17:144

Developing the Pipeline by Enhancing Research Awareness, Exposure, and Ultimately Interest

- 1. Draw on the NIH Collaboratory's network to identify prospective mentors.
- 2. Provide guidance to trainees on how best to benefit from their interaction with mentors and to <u>network effectively</u> as they advance in their careers.

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- **3**. Encourage institutions to broaden their criteria for <u>promotion and tenure</u> beyond the classic measures of success for independent researchers.
- 4. Advertise and promote existing <u>diversity-focused programs</u> more effectively.
- Encourage more short-term summer undergraduate research programs (R25); and T32 summer slots.
- 6. Principal investigators with eligible research grants and contracts to support under-represented trainees with <u>diversity supplements</u>.

Stepping Stones to Success: Mechanisms to Support Developing a Diverse Biomedical Workforce

Trans-NIH Biomedical Workforce Support





BUILD MARC U-STAR

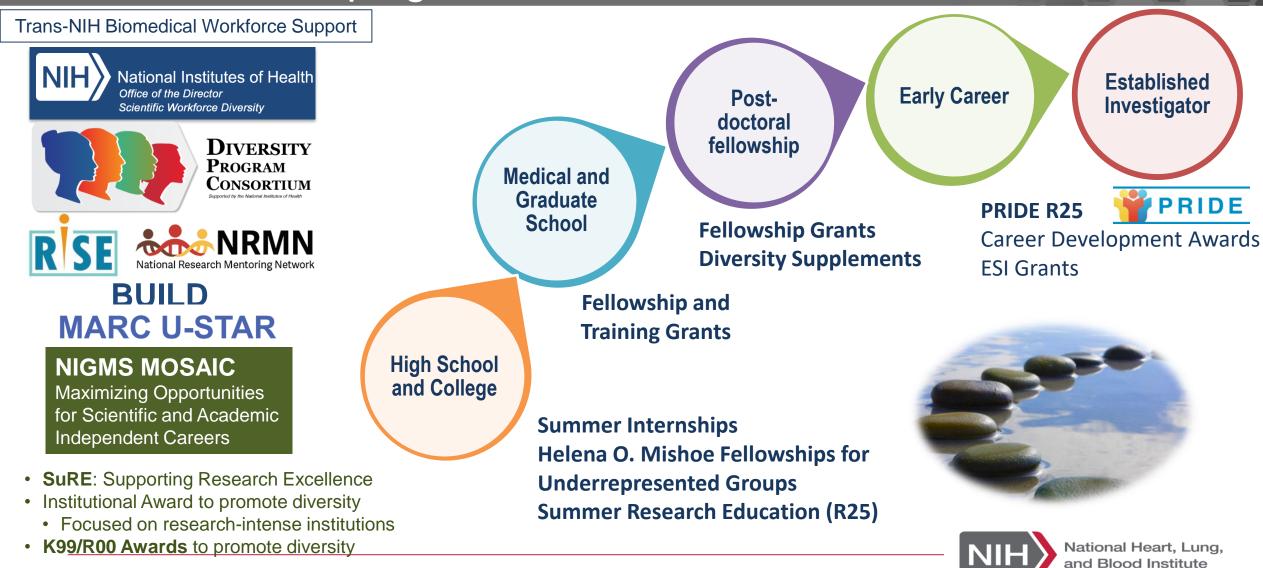
NIGMS MOSAIC

Maximizing Opportunities for Scientific and Academic Independent Careers

- SuRE: Supporting Research Excellence
- Institutional Award to promote diversity
 - Focused on research-intense institutions
- K99/R00 Awards to promote diversity

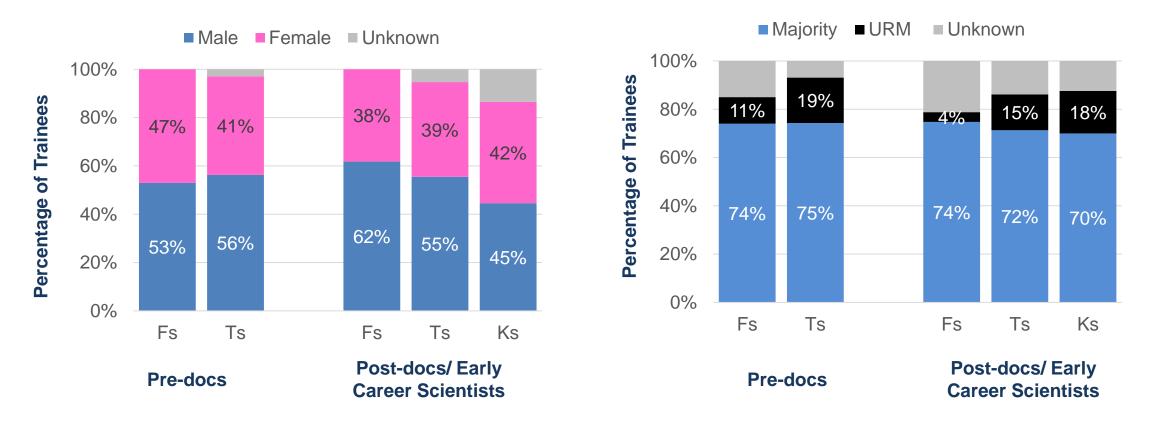


Stepping Stones to Success: Mechanisms to Support Developing a Diverse Biomedical Workforce



Challenges in Inclusive Excellence

FY2019 NHLBI-supported T/F/K Trainees





Conclusions

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Center for Translation Research and Implementation Science (CTRIS)



National Heart, Lung, and Blood Institute

Advancing science. Improving health.

VISIT US AT www.nhlbi.nih.gov



Twitter.com/NHLBI_Translate

Diversity in the PCT ecosystem: How do we develop diverse investigators and leaders in PCTs?

Natalia E. Morone, MD, MS

Associate Professor of Medicine Boston Medical Center/Boston University July 30, 2021

Faculty from underrepresented backgrounds:

- Are less likely to have their research ideas heard and validated
- Disproportionately **leave** the workforce
 - the average cost of losing a faculty member in a department of medicine exceeds \$400,000
- Face expectations to take on diversity-related work and equity issues linked to their race

Valantine HA, Lund PK, Gammie AE. From the NIH: A Systems Approach to Increasing the Diversity of the Biomedical Research Workforce. CBE Life Sci Educ. Fall 2016;15(3)doi:10.1187/ cbe.16-03-0138 Blackstock U. Why Black doctors like me are leaving faculty positions in academic medical centers. First Opinion. STAT; 2020. January 16, sed April 22, 2021.

Retaining Underrepresented Faculty in Research

- Increases faculty productivity
- Improves faculty **retention**
- Fosters a more **diverse** environment

Abebe KZ, Morone NE, Mayowski CA, Rubio DM, Kapoor WK. Sowing the "CEED"s of a more diverse biomedical workforce: The Career Education and Enhancement for Health Care Research Diversity (CEED) program at the University of Pittsburgh. Journal of Clinical and Translational Science. 2019;3(1):21-26. doi:10.1017/cts.2019.364

Developing Underrepresented Faculty in Research

- CEED: Career Education and Enhancement for Health Care Research Diversity
 - Longitudinal program and multi-faceted approach
 - A year-long program designed for **postdocs** and **early-career faculty** who are underrepresented in health-related sciences
- Content: Monthly meetings, Mentoring, Networking, and Coursework in Granting Writing and Manuscript Writing

CEED Key Lessons

Representation Matters

 Monthly speakers are leaders in research and many are themselves underrepresented

Safe space is critical

• Develops a sense of **community** among underrepresented junior faculty who can speak freely with others in the group

Being heard matters

 May be the first time their research ideas are validated and encouraged

Results of CEED experience

- All CEED compared to non-CEED URB trainees enrolled in University of Pittsburgh CTSI programs 2007-2017
- 45 graduates
- 76% percent women
- 78% are non-White
- 33% are Latinx
- more peer-reviewed publications (P=0.0261),
- more likely to be an assistant professor (P=0.0145)

Abebe KZ, Morone NE, Mayowski CA, Rubio DM, Kapoor WK. Sowing the "CEED"s of a more diverse biomedical workforce: The Career Education and Enhancement for Health Care Research Diversity (CEED) program at the University of Pittsburgh. Journal of Clinical and Translational Science. 2019;3(1):21-26. doi:10.1017/cts.2019.364

Building Up a Diverse Pipeline for the Biomedical Research Workforce

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NIH – Diversity Program Consortium Office of the Director Build sites NRMN



U01 – Cooperative Agreement

Building Up - Aims

1. Conduct a Cluster Randomized Controlled Trial to test two different models of intervention

2. Study what factors impact the participants

3. Disseminate the CEED Intervention to other institutions

At conclusion of interventions:

All participants followed for two years

Intervention A	Intervention B
Monthly Sessions	Monthly Webinars
Courses in Grant Writing & Medical Writing	Courses as needed
Mentoring provided by intervention	Mentoring provided by institution
Networking provided by intervention	Networking provided by institution

Institutions Involved

- Northwestern
- East Carolina University
- University of Chicago
- Washington University School of Medicine St. Louis
- University of Michigan
- Tufts Medical Center
- Illinois Institute of Technology
- University of Minnesota
- Loyola Chicago
- Medical University of South Carolina
- University of Pennsylvania
- UC Davis
- Oregon Health and Science University
- University of Southern California
- Rush University Medical Center
- Columbia University Medical Center

- University of Wisconsin Madison
- Penn State Health
- University of Texas Southwestern
- University of Texas Health Sciences San Antonio
- University of New Mexico Health Sciences Center
- Texas A&M
- University of Colorado Denver Anschutz Medical Campus
- University of Buffalo
- Vanderbilt University

Participants

- Target participants 208 post-doctoral fellows or early career faculty (26 institutions)
- Enrolled

225!

Participant Characteristics

Age	Median = 36
Female	80%
Race/ethnicity	
Hispanic/Latinx	34%
Non- Hispanic/Latinx	66%
White	13%
Black	33%
Other	13%
Multi-race	6%
Career status	
Post-doc	47%
Faculty	53%

Opportunity

"Thank you so much for giving me the opportunity to be part of Building Up"

"I feel this is a much needed opportunity for underrepresented biomedical researchers. Looking forward to participating in the intervention"

"This is an amazing opportunity and I am extremely grateful for being selected to participate. I look forward to a fruitful learning experience"