

Status Report

ACD Working Group on Diversity (WGD)



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December 5, 2013

ACD Working Group on Diversity Report

December 5, 2013

Outline:

- 1. WGD Charge and Goals**
- 2. Recap of ACD Recommendations & Actions**
- 3. Three Extramural Diversity Initiatives**
 - **Common Fund**
- 4. Three NIH-wide Diversity and Inclusion Initiatives**
 - **“In-House” programs**
- 5. Next Steps**

Charge to the ACD WGD

Charge: Provide regular advice to the ACD and NIH Director on effective strategies to increase the representation of diverse individuals underrepresented nationally in biomedical research and to reduce disparities in research awards from diverse applicants underrepresented nationally in biomedical research.

Goals:

1. Enhance access and opportunities for all, to foster a diverse scientific community.
2. Enrich the educational, mentoring, and scientific experience in the biomedical research training pipeline
3. Promote personal and professional growth for biomedical researchers underrepresented nationally in biomedical research
4. Foster mutual respect, valuing of differences, cross-cultural understanding and realization of the value of diversity in science
5. Advance programs that prepare diverse individuals underrepresented nationally as scientific leaders

ACD Recommendations

PIPELINE:

- #3 additional financial support for undergraduates
- #1 systematic review and evaluation of a diversity programs
- #4 assess reason for disparity in grant awards
- #6 establish working group of ACD to address #4
- #2 develop interest in STEM in K-12 and beyond

INFRASTRUCTURE:

- #8 Establish bold, multi-year awards to enhance diversity at under-resourced institutions
- #12 Appoint chief diversity officer and establish office of diversity
- #13 More comprehensive search for tenure-track investigators (e.g., Stadtman search)

MENTORING:

- #5 establish a system of mentorship “networks”

PEER REVIEW: (Dr. Richard Nakamura)

- #9 Text-based analysis of grant review commentaries
- #10 Implicit bias/diversity awareness training for scientific review and program officers
- #11 Design experiment to determine effects of application anonymization
- #7 More detailed explanation for unscored grant applications

Strategic Overview of Extramural Diversity Initiatives Common Fund

1. **Overarching goal:** Strengthen the NIH research enterprise through a more diverse and robust workforce, attracting talented individuals from all population sectors.
2. **Program goal:** Transformative approaches to engage individuals, especially those from underrepresented backgrounds, in biomedical research career paths, enhance persistence at all career stages, and prepare them to thrive.
3. A particular **emphasis is on undergraduates**, a key career point where students from underrepresented populations exit the pipeline.
4. Through an integrated set of initiatives, this program will **investigate what works and for whom**.
5. **Transformation** is expected to occur at awardee institutions, but larger impact will result from dissemination of lessons learned for nationwide adoption of effective strategies.

Extramural Grant #1

Common Fund

Building Infrastructure Leading to Diversity (BUILD)

To design and implement transformative, broad-based approaches to research education and training at comparatively under-resourced institutions with concentrations of students from disadvantaged backgrounds.

ACD Recommendations #2, 3, and 8

Building Infrastructure Leading to Diversity (BUILD)

- Award supports new and evidence-based approaches towards institutional, faculty and student development through efforts such as sustaining interest in research, increasing scholarly production, and enhancing pursuit of biomedical research
- Recipients will test proposed novel, transformative interventions on an institution-wide level
- Awardees will work with the consortium (BUILD, NRMN, CEC) to determine what works and for whom

Eligibility

- Primary Institutions for BUILD: less than \$7.5M in NIH RPG funding annually and at least 25% of undergraduate students receiving Pell grants.
- Primary Institutions will be encouraged (but not required) to form partnerships :
 - [Research Partner Institutions](#) -- research-intensive universities
 - [Pipeline Partner Institutions](#) -- two- or four-year colleges
 - [Graduate/Medical Partner Institutions](#) --medical/graduate institutions without undergraduates but with a pool of doctoral-level applicants engaged in research and less than \$7.5M in NIH RPG funding annually

- Planning grants awarded in the Fall (~90 total applications); multi-year Funding Opportunity Announcements (FOAs) forthcoming.

BUILD Planning Grant Awardees

PI Name	Institution Name	Title
BEAR, SUSAN ELIZABETH	PINE MANOR COLLEGE	Planning for BUILD at Pine Manor College
CHOPIN, SUZZETTE F	TEXAS A&M UNIVERSITY-CORPUS CHRISTI	Integrated Partnership for Education Training and Mentoring to the Doctorate
COLOM, LUIS V.	UNIV/TEXAS BROWNSVILLE & SOUTHMOST COLL	BUILD - South Texas
CRESPO, CARLOS J.	PORTLAND STATE UNIVERSITY	Enhancing Cross-disciplinary Infrastructure Training at Oregon (EXITO)
D'AMOUR, GENE	XAVIER UNIVERSITY OF LOUISIANA	Project ATTAIN: Increasing Participation of Xavier Students in the NIH Workforce
DODGE-FRANCIS, CAROLEE	UNIVERSITY OF NEVADA LAS VEGAS	Science & Health: Ascertaining Research Education (SHARE) Consortium
ECHEGOYEN, LOURDES (contact) AGUILERA, RENATO J COLLINS, TIMOTHY WILLIAMS GRINESKI, SARAH MORERA, OSVALDO F	UNIVERSITY OF TEXAS EL PASO	BUILDing SCHOLARS
JACKSON, KIMBERLY M (contact) WINFIELD, LEYTE L	SPELMAN COLLEGE	Women of color Legacy Project (WCL)
LIMBIRD, LEE E.	FISK UNIVERSITY	Integrated Fisk STEM 3 YR Undergrad-2Yr Masters in CS- Vanderbilt Informatics PhD
ROMANO, SANDRA	UNIVERSITY OF THE VIRGIN ISLANDS	BUILDing on UVI Success: A Creative Problem Solving Approach
SERVOSS, JULIE	FLORIDA ATLANTIC UNIVERSITY	RAISE UP- BUILD Planning Grant at Florida Atlantic University
SMITH, MARY A	NORTH CAROLINA AGRI & TECH ST UNIV	Innovative Strategies for URM Pipelines to Biomedical Research Careers
STEVENS, DOUGLAS K	SALISH KOOTENAI COLLEGE	SKC-TCU Consortium BUILD Planning Grant
TAYLOR, BARBRA ELAN	UNIVERSITY OF ALASKA FAIRBANKS	BUILDing Bridges in Alaska
URIZAR, GUIDO G.	CALIFORNIA STATE UNIVERSITY LONG BEACH	Advancing Health Opportunities Research Alliance

Extramural Grant #2

Common Fund

National Research Mentoring Network (NRMN)

To develop a networked set of skilled mentors from diverse disciplines linked to mentees across the country in robust mentoring relationships, develop best practices for mentoring, provide training opportunities for mentors, and establish standards through which mentoring efficacy can be assessed.

ACD Recommendations #1 and 8

National Research Mentoring Network (NRMN)

- Award supports evidence-based approaches towards developing effective mentoring
 - Recipient will test these approaches on a large scale
 - As standards evolve, awardee will work with the consortium (BUILD, NRMN, CEC) to determine what works and for whom.
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- Connect students, postdoctoral fellows, and faculty to experienced mentors and network to the larger biomedical community
 - Develop standards for and provide training in good mentorship
 - Provide training in grantsmanship and career development skills
 - Link with BUILD institutions; open to all student participants
-
- Planning grants awarded in the Fall (~30 total applications); multi-year Funding Opportunity Announcements (FOAs) forthcoming.

NRMN Planning Grant Awardees

PI Name	Institution Name	Title
BURGESS, DAVID (contact) WERNER-WASHBURNE, MARGRET C.	SOCIETY FOR THE ADV CHICANOS/NATIVE AMER (SACNAS)	Consortium for the National Research Mentoring Network
OKUYEMI, KOLAWOLE S	UNIVERSITY OF MINNESOTA	Leveraging Best Practices in Mentoring from the Collective Experience of CNPCs
BYINGTON, CARRIE L (contact) FREUND, KAREN	UNIVERSITY OF UTAH	Clinical and Translational Science NRMN Furthering a Diverse Biomedical Workforce
SAMUEL, RAYMOND , MD, PHD (contact) HARVEY, WILLIAM R MCGEE, ZINA THERES RAMSEY, CHENERE PIERCE	HAMPTON UNIVERSITY	The Hampton National Research Mentoring Network (NRMN) Consortium
WILSON, DONALD EDWARD	ASSOCIATION/ACADEMIC MINORITY PHYSICIANS	Mentoring Educating Networking Training Opportunities in Research Consortium (MEN)
SORKNESS, CHRISTINE ANNE (contact) BRANCHAW, JANET L PFUND, CHRISTINE E	UNIVERSITY OF WISCONSIN- MADISON	Strengthening Mentorship for a Diversified Biomedical Research Workforce
VISHWANATHA, JAMBOOR K	UNIVERSITY OF NORTH TEXAS HLTH SCI CTR	National STAR Fellowship Network

Extramural Grant #3

Common Fund

Coordination and Evaluation Center (CEC)

To coordinate consortium-wide activities and evaluation of BUILD and NRMN programs. The CEC will also serve as the focal point for dissemination, sharing information with the broader biomedical research and training communities.

ACD Recommendations #5 and 8

Coordination and Evaluation Center (CEC)

- Awardee coordinates discussion of the hallmarks of success across the consortium (BUILD, NRMN, CEC)
 - Coordination will occur in an iterative fashion allowing for information to be relayed to awardees in “real time”
 - Proposed approaches can be modified to maximize efficacy based on this information
-
- Identify specific goals/metrics tailored to the individual environment of each awardee
 - Assess the impact of approach used by each site
 - Coordinate data acquisition across sites
 - Disseminate consortium-endorsed practices and lessons learned to transform training and mentoring programs across the nation

NIH-Wide Diversity Program #1

Diversity at the NIH Workshop

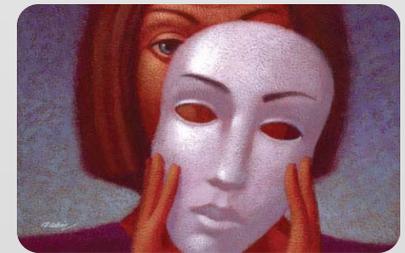
- First-ever workshop presented directly to NIH senior leadership focused on diversity and inclusion.
 - Opening Session with Institute/Center Directors and Scientific Directors.
 - 2nd Session NIH-wide and archived at <http://videocast.nih.gov/summary.asp?Live=13316>



Diversity at the NIH Workshop

AGENDA

- **Understanding and Addressing Diversity**
 - David Williams, PhD, MPH, Harvard University
- **Diversity as an Imperative for Excellence**
 - Daryl Smith, PhD, Claremont Graduate University
- **Implicit Bias**
 - Brian Nosek, PhD, University of Virginia
- **Evolution of Diversity**
 - Marc Nivet, EdD, Assoc. of Amer. Medical Colleges
- **Stereotype Threat**
 - Hannah Valentine, MD, Stanford University
- **Impostor Phenomenon**
 - Pauline Rose Clance, PhD
- **Power and Social Relationships**
 - Jack Dovidio, PhD, Yale University
- **Social Inequality**
 - Erin Cech, PhD, Rice University
- **Diversity as a Fundamental Tenet of Innovation**
 - Joseph DeSimone, PhD, University North Carolina



Take-home Messages

Why Diversity Matters:

- *“Since we learn the most from those we have the least in common with, **diversity is a fundamental tenet of innovation.**” ... “**Diversity is core to driving the excellence we seek in basic science, clinical science**”*

Psychological Phenomena Counteractive to Diversity Goals

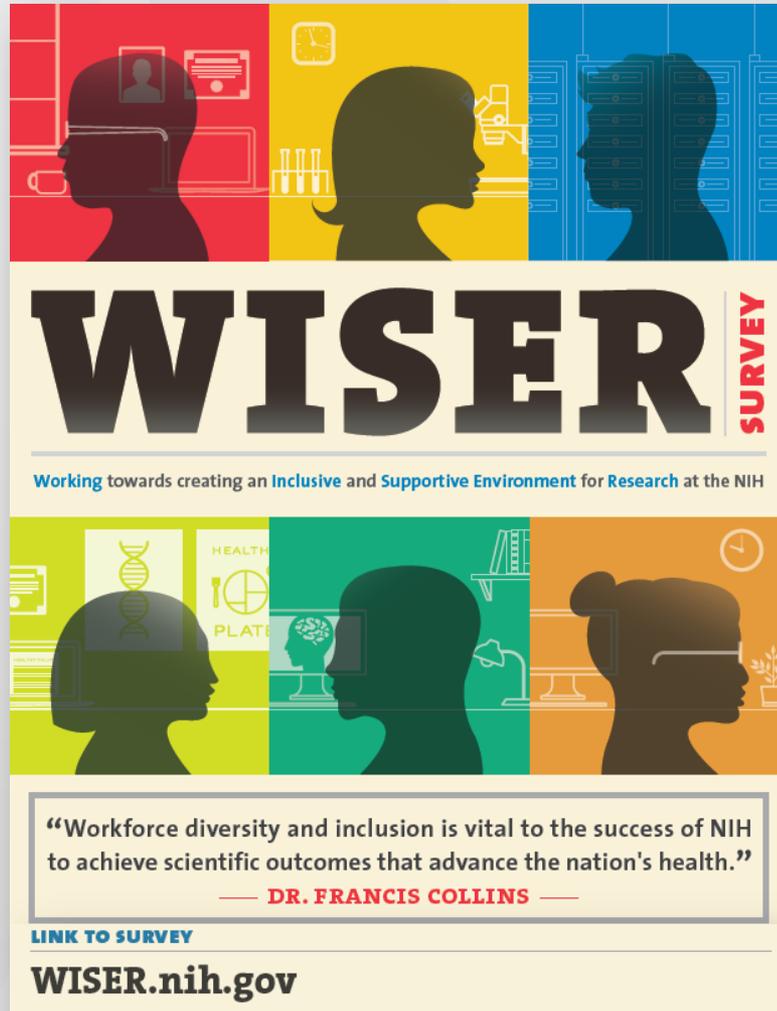
- Bias is a learned association. Once made, it becomes the default association making it difficult to change even with awareness.
- Psychosocial phenomenon (e.g., stereotype threat, impostor phenomenon) can influence perceptions and social interactions that interfere with enhancing diversity.
- **“Legitimize diversity and inequality** issues as topics of conversation around the NIH; bracketing these conversations to spaces and times designated as for "diversity" will do little to change culture or practice.”

ACTION ITEM: NIH Institute/Center Directors charged with identifying challenges and potential solutions to overcome those challenges in efforts to diversify our workforce

NIH-Wide Diversity Program #2

WISER Survey

DECEMBER 2013



WISER SURVEY

Working towards creating an **Inclusive** and **Supportive Environment** for **Research** at the NIH

“Workforce diversity and inclusion is vital to the success of NIH to achieve scientific outcomes that advance the nation’s health.”
— DR. FRANCIS COLLINS —

[LINK TO SURVEY](#)

WISER.nih.gov

- Working towards creating an Inclusive and Supportive Environment for Research survey launched Dec. 1.
- Goal is to collect information from the entire NIH workforce.
- The WISER survey topic areas include **personal success, diversity and inclusion, the work environment, and mentoring** at the NIH.

NIH-Wide Diversity Program #3

Workshop on Mentoring and Sponsorship

GOAL: Define mentoring, sponsorship, advocacy and other related concepts to establish a reference working model of good mentorship. **Identify successes and gaps** in the mentoring infrastructure of the NIH with the **intent of establishing interventions** or strategies to improve the mentoring and sponsorship. [SPRING FY14]

QUESTIONS to address:

- How do you define mentor, sponsor, advocate, champion, coach?
- What data/evidence exist for supporting various approaches?
- How do psychosocial phenomenon impact mentoring?
- What interventions can be implemented?

Next Steps for the ACD WGD

- Through the ACD, the WGD will continue discussions on:
 - How best to communicate the goals and intent of the Common Fund Diversity Program (i.e., BUILD, NRMN, CEC) to the applicant pool and work with institutions to develop strong, transformative programs
 - Construct of the Workshop on Mentoring
 - In-house efforts to enhance diversity

NIH WORKFORCE DIVERSITY ACTIVITY TIMELINE	
June 2012	ACD Report on Diversity: 13 Recommendations
June – September 2012	NIH Pre-Implementation Studies
September 2012	NIH Leadership Retreat: Pre-Implementation Plans presented & discussed with Senior Leadership
October - December 2012	NIH Implementation Plans revised, reviewed by leadership and presented at ACD
January 2013	Dr. Collins Accepts Plans, executes Recommendation #12 to establish new position in his office: Chief Officer for Scientific Workforce Diversity (COSWD)
January 2013	Dr. Pettigrew appointed Acting COSWD & Co-Chair Search Committee for COSWD search process begins
February 2013	Planning Grants Opportunity for BUILD & NRMN Announced: ~\$150K/6 month/award Goal: Support development of plans to compete for full multi-year BUILD & NRMN awards in 2014; see http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-13-001.html for Eligibility Criteria
April 2013	Planning Grants Applications Received
June 2013	Planning Grants Applications Stage 1 review
September 2013	NIMHD Council Stage 2 review/Approved list of Awards: 15 BUILD & 7 NMRN Planning Grants awarded
October 2013	Shutdown delayed BUILD, NRMN, & CEC Full Multi-year Award FOAs
December 2013	Planned Release of FOAs
March/April 2014	Applications for Full Awards due
September 2014	Awards: ~10 BUILD; 1 NRMN ; 1 CEC will be made; total of ~\$50 M/year up to 10 years BUILD: support novel programs, students & faculty, at under-resourced institutions; partnerships with research intensive institution (Rec #2,3,8) NRMN: assemble a single nationwide consortium of mentors to support BUILD and other scholars (Rec #5,8) CEC: facilitate integration of BUILD & NRMN; evaluate performance; effect synergy with other NIH programs (Rec #1,8); disseminate novel approaches to training community https://commonfund.nih.gov/diversity/overview.aspx



LETTERS

edited by Jennifer Sills

Biomedical Research: Strength from Diversity

THE RECENT EDUCATION FORUM BY M. J. GRAHAM AND COLLEAGUES ("INCREASING PERSISTENCE OF COLLEGE STUDENTS IN STEM," 27 September, p. 1455) called for widespread implementation of a much-needed framework for increasing persistence of college students in science, technology, engineering, and mathematics (STEM) fields. The Persistence Framework that they describe is evidence based, drawing from a rich body of research that has identified the relevant education and psychosocial issues that must be addressed, as well as effective strategies.

Recognizing that the biomedical research enterprise would be greatly strengthened by attracting the most talented individuals from all groups, the National Institutes of Health (NIH) has been intensively engaged for more than 2 years in a planning process. As a result, a distinguished working group (1) has made a series of bold recommendations that are now in the process of being implemented.

These include the systematic evaluation of NIH training programs, the appointment of a Chief Office for Scientific Workforce Diversity, and the launch of a new three-component program that will provide the resources necessary to implement and assess, on a large scale, approaches such as those described by Graham *et al.* Developing new



ways to engage college students, sustain their interest in research, and provide trainees at all career stages with the strategies and tools to thrive in the biomedical research workforce are the goals of the "Enhancing the Diversity of the NIH-Funded Workforce" program (2). This program will consist of three highly integrated initiatives:

(i) The National Research Mentoring Network (NRMN) will develop transformative approaches to mentoring. The network will engage diverse mentors from many biomedical research disciplines and link them to mentees at multiple career stages.

(ii) The Building Infrastructure Leading to Diversity (BUILD) initiative will support relatively under-resourced academic institutions with a demonstrated commitment to students from highly diverse backgrounds. These institutions will have the opportunity to develop a series of potentially transformative education and training activities that address the many factors underlying student/trainee persistence in biomedical research career paths and successful transition into the research workforce. BUILD emphasizes and requires the provision of research opportunities. The program will seek strength through collaboration across the spectrum of types of institutions.

(iii) The Coordination and Evaluation Center will work with both the BUILD consortium and NRMN to assess the efficacy of the various approaches that are being piloted.

History has revealed that addressing problems that disproportionately affect minority populations has often had a transformative impact for the majority as well (3). We predict

that transformative approaches to student engagement and training developed through the Common Fund's Diversity Program will have a similar far-reaching impact on training everywhere.

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References

1. NIH Advisory Committee to the Director, *Diversity in the Biomedical Workforce Working Group Report* (NIH, Bethesda, MD, 2012).
2. NIH, *Enhancing the Diversity of the NIH-Funded Workforce* (<http://commonfund.nih.gov/diversity/>).
3. M.N. Davidson, *The End of Diversity as We Know It: Why Diversity Efforts Fail and How Leveraging Difference Can Succeed* (Berrett-Koehler Publishers, San Francisco, 2011).

Pest Control: Embrace Marketing

IN HIS NEWS STORY "VIETNAM TURNS BACK A 'tsunami of pesticides'" (special section on Smarter Pest Control, 16 August, p. 737) D. Normile attributes the increase in pesticide use in Asia to "very powerful marketing forces." Yet, the campaigns that convinced Vietnamese rice farmers to use less pesticide also used marketing principles and tools, such as strategic use of posters, leaflets, radio soap operas, and television commercials. Although marketing principles are usually used to communicate the value of a commercial product or service to a cus-

Letters to the Editor

Letters (~300 words) discuss material published in *Science* in the past 3 months or matters of general interest. Letters are not acknowledged upon receipt. Whether published in full or in part, letters are subject to editing for clarity and space. Letters submitted, published, or posted elsewhere, in print or online, will be disqualified. To submit a letter, go to www.submit2science.org.

Downloaded from www.sciencemag.org on November 19, 2013

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Science lead Letter published (342:6160; Nov. 15, 2013)

- Dr. Collins continues to provide leadership on the urgency of diversity and inclusion in the biomedical research workforce.
- Authored by Wilder, Tabak, Pettigrew and Collins.

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