

UCSF Weill Institute for
Neurosciences

Department of
Psychiatry and
Behavioral Sciences

Lessons Learned:

Mentoring the Next Generation of Investigators from
Racial & Ethnic Minoritized Backgrounds in Addiction

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Representation of Racial/Ethnic Minoritized Groups as NIH Investigators

Racial/Ethnic Minoritized Groups & NIH Funding

- Historically underrepresented racial/ethnic minoritized faculty remain extremely underrepresented at research universities
- In academic science, research grants are essential career currency; grants fund research that lead to publications, prestige, recruitment of students and postdoctoral fellows
- Significant racial/ethnic disparities in NIH research grant funding persist.

Figure 2. Number of unique RPG applicants (scientists designated as PIs by their institutions on RPG applications submitted to NIH) FY2010-FY2021 according to self-designated race-ethnicity.

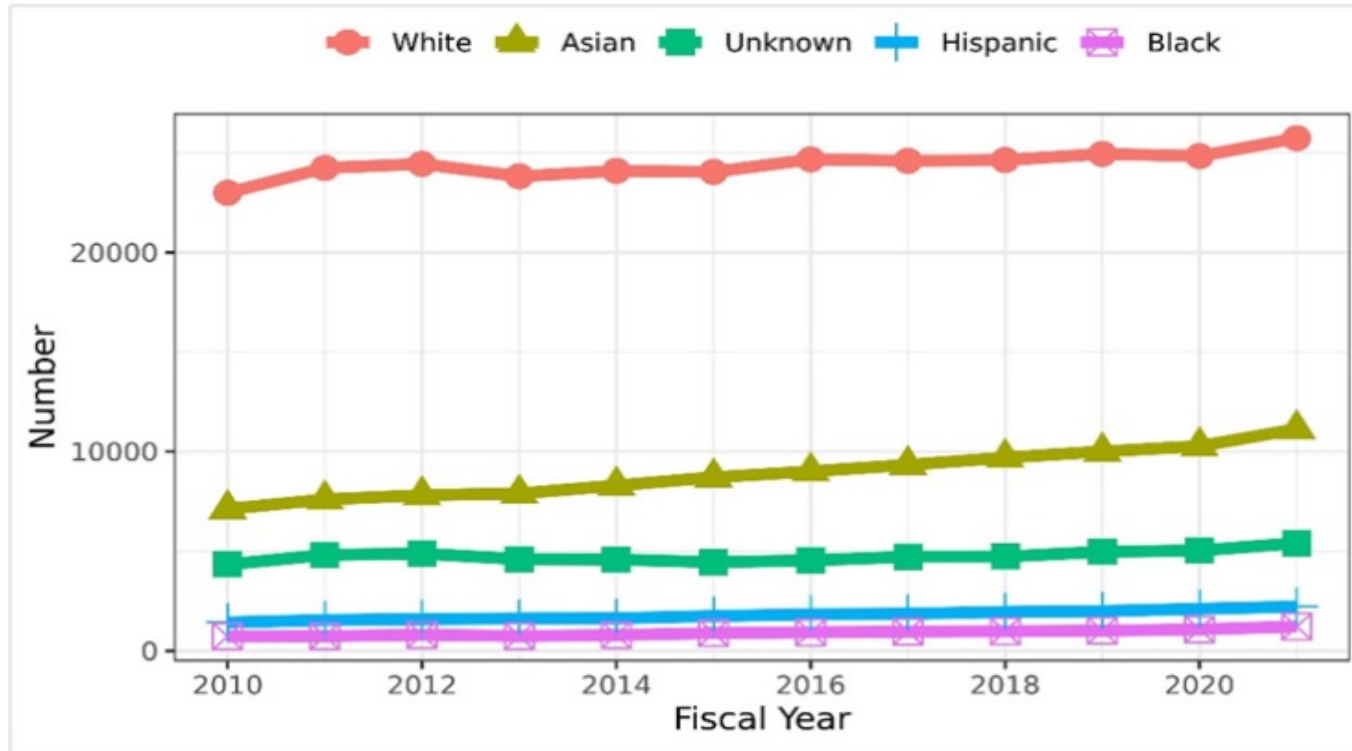


Figure 5: Funding rates for Type 1 Research Project Grant (RPG) Principal Investigators (PIs) 2010-2021 according to self-designated race-ethnicity.

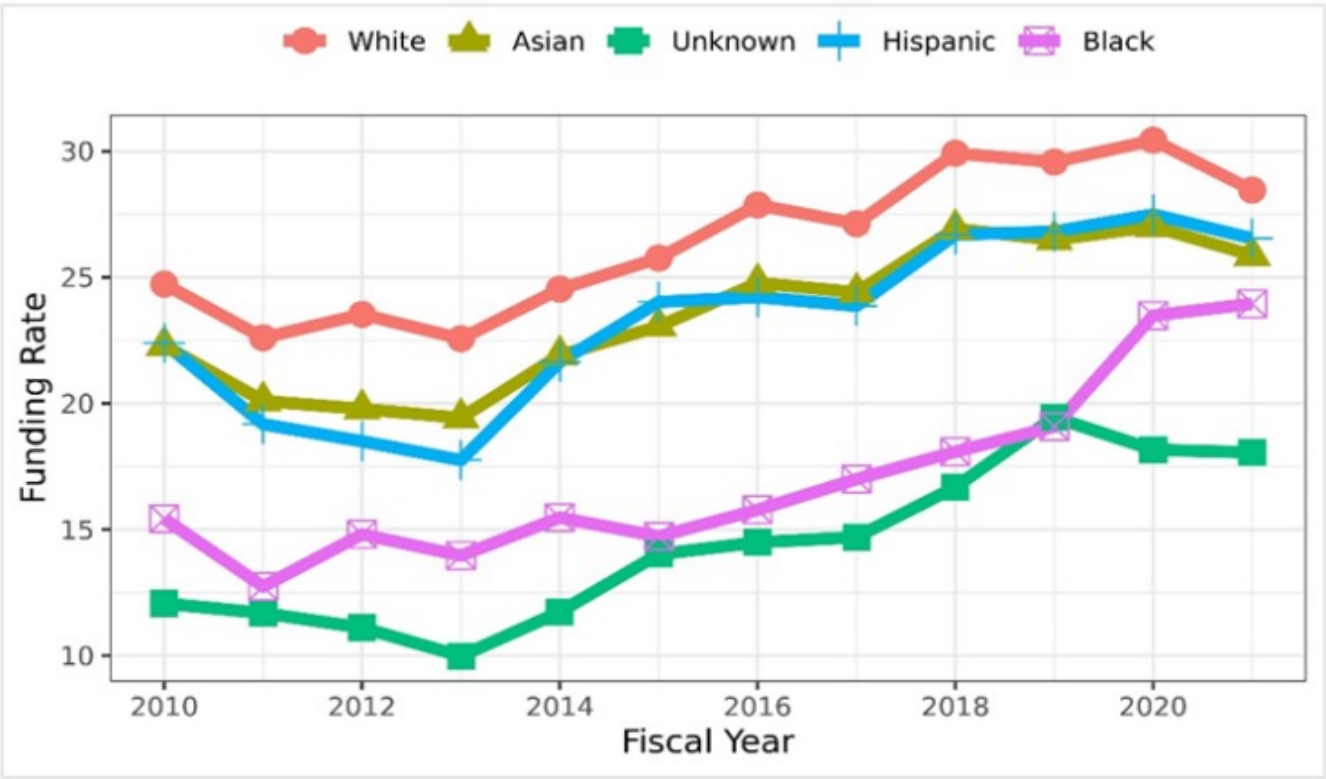
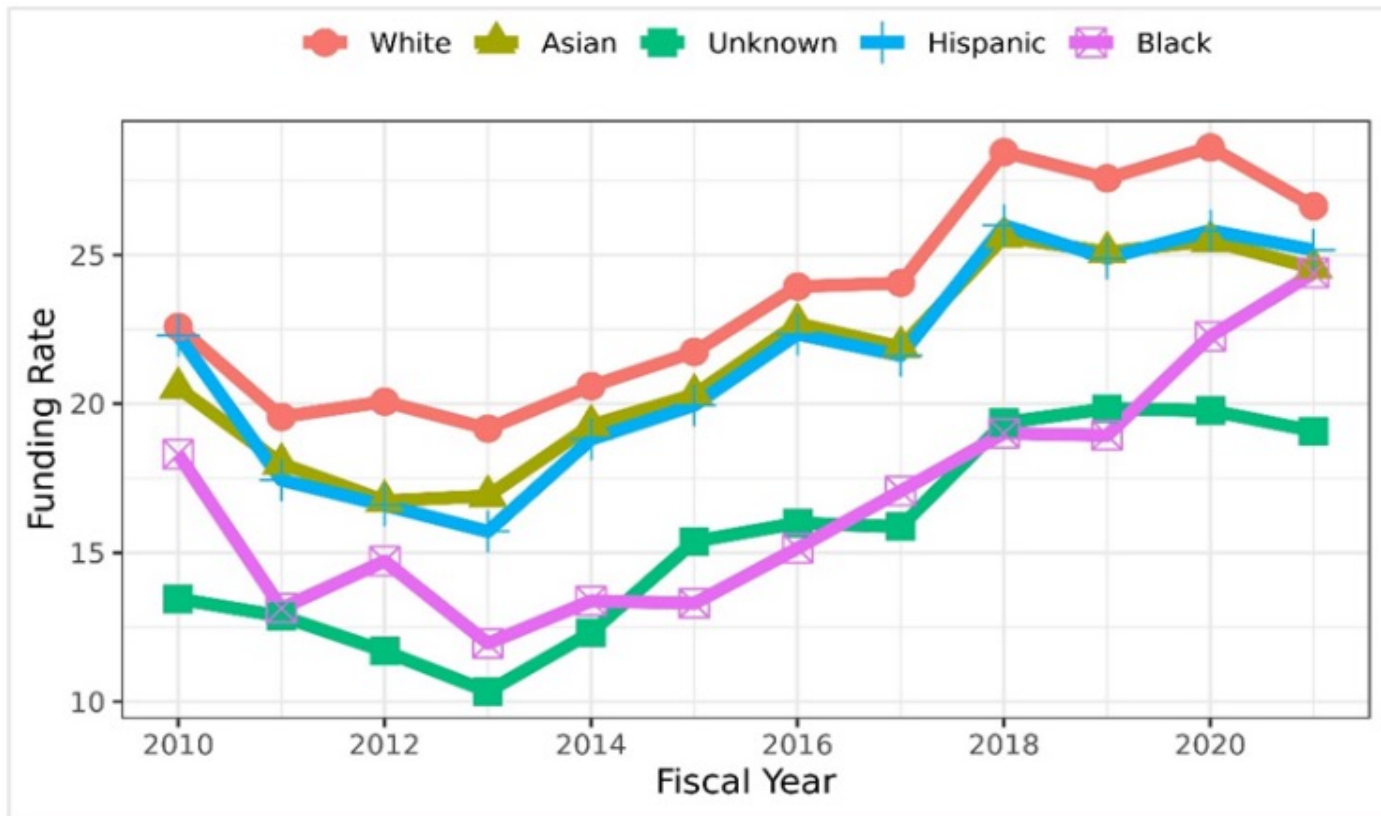


Figure 6: Funding rates for Type 1 R01 Principal Investigators (PIs) 2010-2021 according to self-designated race-ethnicity.



Racial/Ethnic Minoritized Groups & NIH Funding (cont'd)

- Applications for African Americans/Black scientists are less likely to be discussed by NIH study sections and receive poorer impact scores
- African American/Black PIs are more likely to propose research on topics that are less likely to be funded: topic choice alone contributes to over 20% of the gap in funding success
- Cumulatively, lower submission rates, lower average discussion rates, and lower impact scores result in applications from African American/Black scientists receiving R01 funding at approximately half the rate of those from white scientists

Hoppe et al. (2019).

Racial/Ethnic Minoritized Groups & NIH Funding (cont'd)

- Despite increases in the proportion of women investigators, women remain under-represented as R01 funded investigators
- The finding is more pronounced for African American/Black and Asian American women PIs
- African Americans/Black PIs and women PIs are significantly underrepresented among those who hold 3 or more concurrent NIH grants (i.e., “Super PIs”).

Lauer & Roychowdhury (2021)

Ginther et al. (2016)

Nguyen et al. (2023)

How can we support the scientific career development of faculty of color?

- Ensure a more demographically diverse set of reviewers in NIH study sections
- Encourage a more diverse applicant pool
- Targeted funding opportunities designed to enhance postdoctoral transitions to promote faculty diversity
- Develop and implement mentoring programs that provide new and early-stage investigators with quality guidance on navigating the NIH system

Hoppe et al. (2019)

Barriers to Academic Careers for Scholars from Racial/Ethnic Minoritized Groups

Unique Barriers to Academic Success for Underrepresented Faculty of Color

- Inadequate and insufficient culturally relevant mentoring (Walters et al., 2016)
- Excessive role burdens (Zambrana et al., 2017, Walters et al., 2019)
- Clashes between personal values and values of academia (Walters et al., 2019)
- Devaluation of their scholarship (Walters & Simoni, 2009)
- Exclusion from informal groups and professional networks that provide support
- Racial/ethnic discrimination and microaggression distress (Walters et al., 2019)

Unique Barriers to Academic Success for Underrepresented Faculty of Color (Cont'd)

- **More negative mentoring experiences and face barriers to positive mentoring** (e.g., distancing, lack of expertise, manipulative behaviors, dysfunctionality, mismatch within dyad-cultural background, values or scholarly interests, inadequate feedback on scholarly work, career development and support toward career advancement) (Davis et al., 2021)
- **Difficulty finding mentors (e.g., mentors with shared identity); challenge particularly burdensome for women of color**
- **Insufficient institutional support for mentoring**

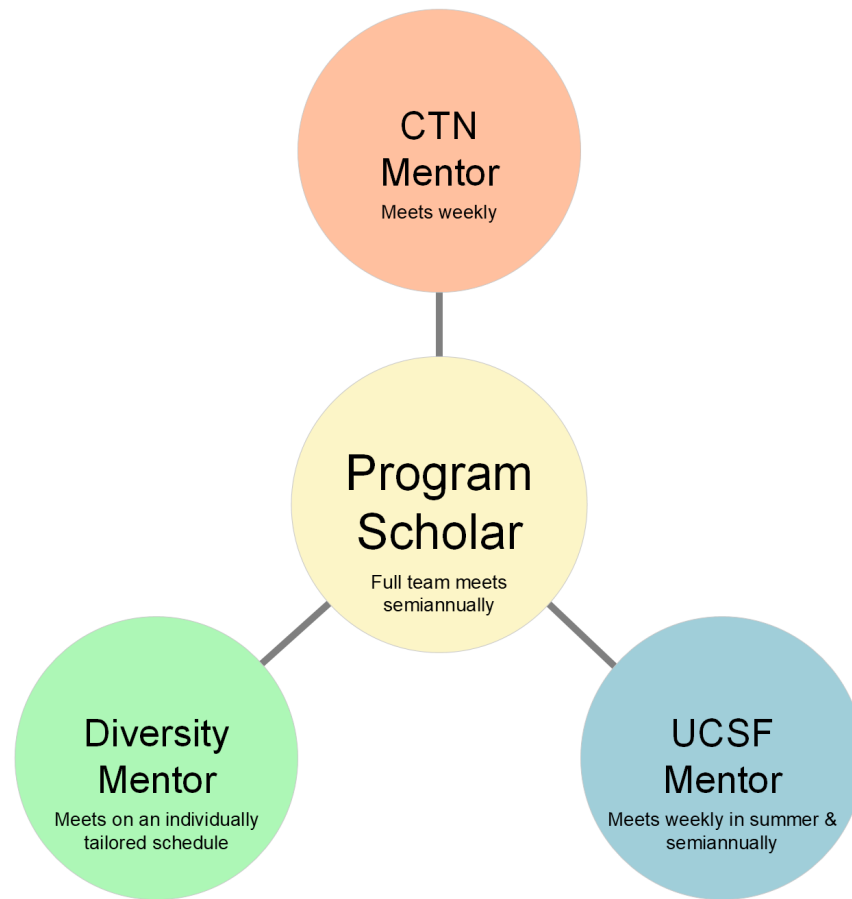
Mentorship

- Increasing the number of well-trained scientists of color is achievable by providing exposure to mentored learning opportunities
- Mentorship guides early career faculty on a path to success
- Sponsorship is critical to advancing high-level leadership roles.
- Training faculty about how to be an effective mentor is critical to success of mentoring relationships

Learning for Early Careers in Addiction & Diversity Program

LEAD Program Goals

- Training in substance use/SUD research to early-stage research scientists from URGs to foster their development as independent NIH-funded PIs
- National Drug Abuse Treatment Clinical Trials Network (CTN) as a platform for training
- 3-year program with 4-week Summer Intensive Training of seminars and workshops at UCSF
- Scholars matched with NIDA CTN senior investigators who will mentor them through the 3-year training period
- Mentoring and training during the academic year at home institution
- Provide scholars with support to conduct pilot research as a pathway to subsequent NIH applications





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4-Week Summer Intensive Training

- **Seminars:**

- UCSF faculty & faculty from other research universities
- Visiting faculty-within and outside the NIDA CTN
 - Experts in content areas: clinical trial design, biostatistics, implementation science, mixed methods, cultural adaptations of evidence-based treatments, qualitative research methods, ethical and regulatory responsibilities in human subjects' research

- **Workshops:**

- Pilot Study Development
- Grant Proposal Development
- Manuscript Development
- Mentor Training

Individual Development Plan (IDP)

- At entry, Scholars complete IDP to identify short and long-term goals
- Self-assessment of research and professional skills
- Annual review with CTN mentor to reflect and discuss progress toward achieving program milestones

Scholar Objectives

- Design and complete one or more original research projects
- Complete and submit at least 3 first-authored manuscripts and 3 co-authored manuscripts
- Present research findings at 3 national or international scientific meetings
- Write and submit a training (K) or research (e.g., R03, R21, R34, or R01) grant application to NIH

Examples of LEAD Scholars Disparities-Related Research

LEAD Cohort	Scholar Name	Title of Grant	Grant Number
1	Sabrina Assoumou	Engaging young people who inject drugs into HCV and HIV care	K23DA044085
1	LaTrice Montgomery	Twitter-based intervention for young adult African American blunt smokers	K23DA042130
3	Ayana Jordan	Addressing health disparities by providing evidence-based treatment in the Black church	R01AA028778
3	Tamika Zapolski	Racial discrimination and drug use: Examining the mediating role of inflammation among African American youth	K01DA043654
5	Angela Haeny	Understanding race-related stress as a mechanism associated with alcohol craving to inform culturally-adapting alcohol treatment for Black adults	K23AA028515
5	Asti Jackson	Investigating the relationship between menthol flavor and nicotine metabolism in African Americans who smoke cigarettes	K01DA051882
5	Oladunni Oluwoye	Geographic disparities in the availability and accessibility of coordinated specialty care programs for early psychosis	R34MH128212
6	Micah Johnson	Examining the stress processes relating ethnicity and sex to substance misuse and services outcomes (ESPRESSO)	K01DA052679
6	Katherine Hirchak	Culturally re-centering contingency management and behavioral economics to increase engagement with American Indian young adults	K01AA028831
7	Brittany Bryant	Cultural adaptation of an alcohol and other drug use treatment for Black justice involved youth	K23DA057412

Outcomes – NIH Grant Funding

First 5-Year Funding Cycle (2014 -2019)

- 11 LEAD Scholars were supported and 7 received NIH awards (63%)
 - 3 LEAD Scholars received K23 awards
 - 1 received a K01 award
 - 2 received an R01 award
 - 1 received two R21 awards
 - 1 received a U54 award
 - 2 received NIH institutional awards

Outcomes – NIH Grant Funding Second 5-Year Funding Cycle (2019 -2024)

- 10 LEAD Scholars were recruited and 5 have received NIH awards (50%)
 - 1 received 2x R34 awards
Dr. Oladunni Oluwoye at Washington State University
 - 1 received an R25 award
Dr. Micah Johnson at the University of South Florida
 - 2 received a K01 award
Dr. Asti Jackson, Yale University
Dr. Micah Johnson, University of South Florida
 - 2 received a K23 award
Dr. Brittany Bryant, University of California, San Francisco
Dr. Angela Haeny, Yale University

Lessons Learned

Unique Experiences & Scholar Needs

- **Racial trauma**
(personal history of experiences with racism, negative stereotypes in media, microaggressions, experiences of daily discrimination)
- **Professional development skills**
(negotiation skills, navigating politics, managing a research lab and being a good mentor and mentee)
- **Financial support**
(training, research, dissemination)
- **Flexibility in expectations**

Strategies Contribute to Program Success

- Collaboration & tangible support from other training programs and research centers that share mission to support underrepresented scholars
 - UCSF CAPS Visiting Professor Program (PI: Tor Neilands, PhD)
 - Dartmouth Center for Technology & Behavioral Health (PI: Lisa Marsch, PhD)
 - Stanford Center for Dissemination & Implementation (PI: Mark McGovern, PhD)
 - Western States Node of the NIDA Clinical Trials Network (PIs: Todd Korthuis, MD; Keith Humphreys, PhD)
- Social networking is critical to success
 - In-person training experience allows for group cohesion, social support, and comradery
 - Participation in NIDA CTN research and training opportunities
 - CTN Minority Interest Group
 - Exposure to senior scientists
 - Informal opportunities to socialize

THANK YOU!



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