Howard Hughes Medical Institute

Scientific Mentorship Initiative

Launched in January 2022, the Scientific Mentorship Initiative is an equity-centered initiative that is one of the core elements of **HHMI's Diversity, Equity, and Inclusion Goals**, namely Goal 5 which is charged with establishing and providing professional development programming. Specifically, the Scientific Mentorship Initiative will offer cultural awareness mentorship skills development courses to HHMI scientists. Development of the Scientific Mentorship Initiative will happen in two phases. First, the Scientific Mentorship Initiative will identify a group of individuals that will serve as the course facilitators. Second, the facilitators will optimize, adapt, develop, and facilitate mentorships skills development courses for HHMI scientists.

Rationale/Premise

The Scientific Mentorship Initiative operates on the premise that the responsibility for creating healthy scientific training environments, defined as environments that are equitable and inclusive, lies with those who teach and mentor the next generation of scientists. As such, the goal of the Scientific Mentorship Initiative is to improve the culture of the research training environment by providing mentorship skills development courses for HHMI scientists to foster cultural awareness and facilitate cultural responsiveness.

Background

The Scientific Mentorship Initiative builds on the success of the year-long, 30-hour mentorship skills development course that advisers of the **Gilliam Fellows** complete as a condition of the award. The course for Gilliam advisers, first introduced in 2015 and developed in partnership with the Center for the Improvement of Mentored Experiences in Research (**CIMER**), focuses on developing cultural awareness and facilitating cultural responsiveness in mentorship. Cultural awareness, defined as an awareness of the ways that cultural factors within and between mentees and mentors may be salient in and impact the mentoring relationship and cultural responsiveness, which are the mentorship behaviors that demonstrate knowledge of their own and interest in a mentee's culture and the mentee's experience in a cultural context. Assessment of the course for Gilliam advisers revealed significant gains in four **culturally responsive mentorship skills**, as reported by advisers that have completed the course between 2016-2018. They are:

i. Respectfully broaching the topic of race/ethnicity in mentoring relationships,
ii. Going outside of their comfort zone to help mentees feel included in the lab,
iii. Encouraging mentees to think about how research relates to their own lived experience, and
iv. Intentionally creating opportunities for mentees to bring up issues of race/ethnicity when they arise.

Most notably, the self-reported frequency of culturally responsive behaviors that advisers reported were corroborated by Fellows. More information about the mentorship skills development course for Gilliam advisers can be accessed in the **2022 publication**.

SMI Course Development

Based on this assessment, SMI courses developed for HHMI scientists will retain the elements essential to fostering cultural awareness and facilitating cultural responsiveness. These elements include: i) developing intrapersonal skills (awareness of how culture shapes worldview), ii) developing interpersonal skills (understanding how ones' worldview complicates relationships, including mentoring relationships, and iii) cohort & community of practice models (opportunities to practice intrapersonal and interpersonal skills, make mistakes, and continue learning).

HHMI Facilitator-Scholars

A national search was conducted, and seven individuals invited to serve as the inaugural cohort to train for one year to become HHMI Facilitator-Scholars. The Facilitator-Scholars will assume curricular design and facilitation of mentorship skills development courses for HHMI scientists starting in 2023. They are:

- **Angela DePace**, Associate Professor of Systems Biology at Harvard Medical School.
- **Mica Estrada**, Associate Dean of Diversity, Inclusion and Outreach and Associate Professor in the Department of Social and Behavioral Sciences and the Institute for Health and Aging in the School of Nursing, University of California, San Francisco.
- **Roger Fillingim**, Distinguished Professor Director of the Pain Research & Intervention Center of Excellence at the University of Florida.
- **Jennifer Frederick**, Associate Provost for Academic Initiatives and ED of the Poorvu Center for Teaching and Learning at Yale University.
- **Yvette Murphy-Erby**, Vice Chancellor for the Division of Diversity, Equity and Inclusion and Professor of Social Work at the University of Arkansas.
- **Ashton Murray**, Chief Diversity Officer and Vice President of Diversity, Equity, and Inclusion at the Rockefeller University.
- **Viji Sathy**, Professor in Psychology & Neuroscience at the University of North Carolina at Chapel Hill.

Collectively, these seven individuals bring a wealth of experience and expertise in higher education including, but not limited to experience working with and advising students and early career scientists, experience with curriculum design and delivery, assessment, data collection and analysis, program evaluation, and activities that promote diversity, equity, and inclusion in academic science.

Impact

When fully operational, there will be between 150-215 HHMI scientists annually that will participate in cultural awareness mentorship skills development programming. Based on these numbers, we believe that the Scientific Mentorship Initiative could make a significant impact on improving the research training environment culture.