June 20, 2024

#SWDSS

NIH Scientific Workforce Diversity Seminar Series

Programs & Activities to Broaden The Scientific Workforce:

The HHMI Freeman Hrabowski Scholars and the Center for the Advancement of Science Leadership and Culture

Blanton S. Tolbert, PhD
Vice President of Science Leadership & Culture @ HHMI

diversity.nih.gov

National Institutes of Health
Office of the Director
Chief Officer for Scientific Workforce Diversity

HHMI's Approach

Discovery Science

We drive discovery by equipping outstanding scientists with resources and community for breakthrough science.

Reshaping Research Culture

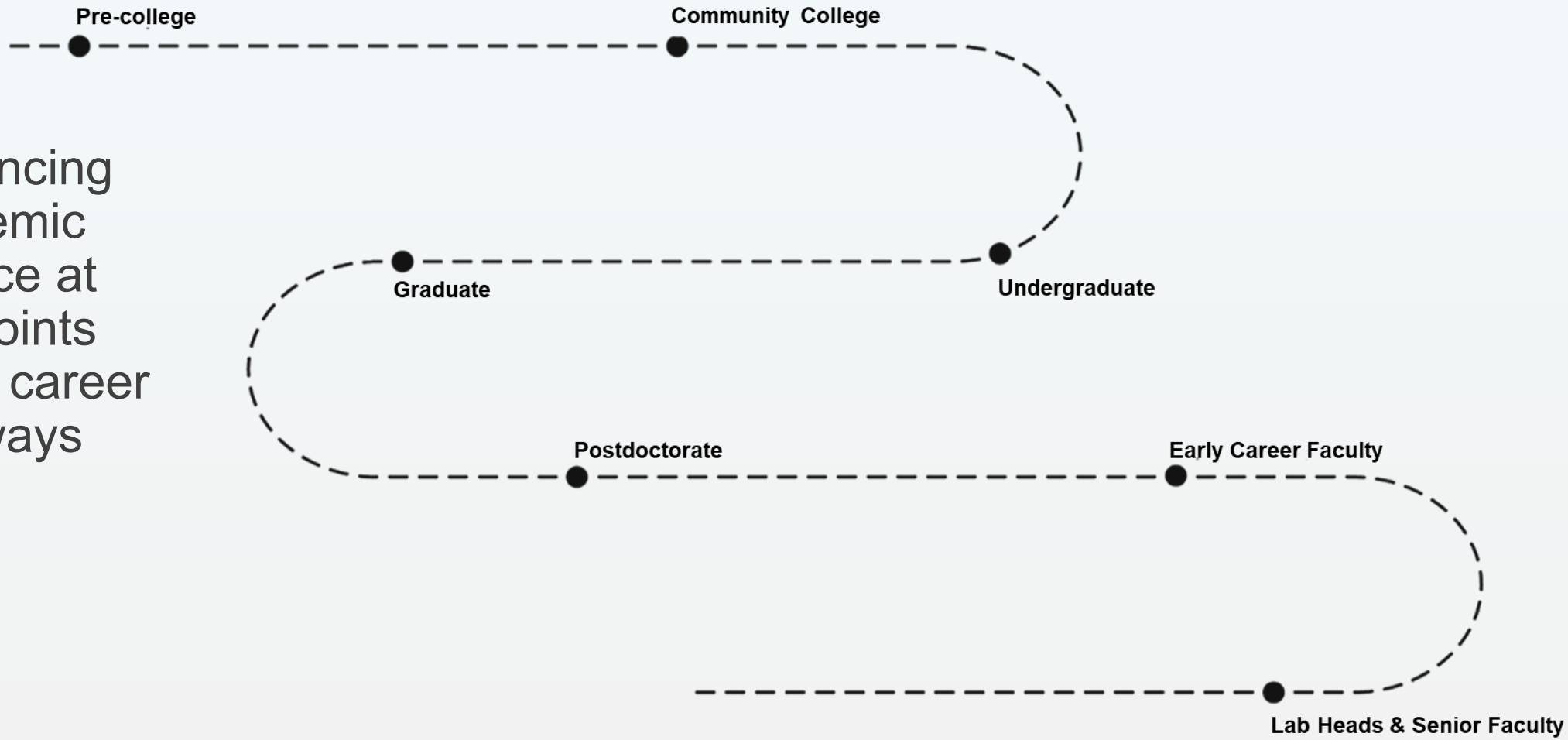
We embed equity and inclusion into our vision of scientific excellence.

Public Engagement

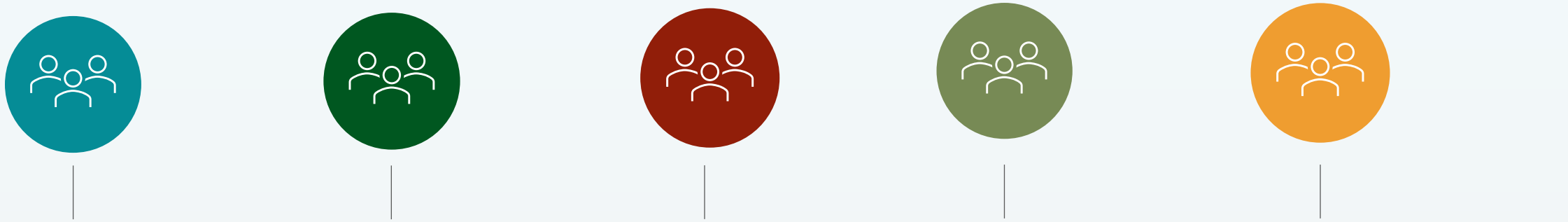
We inspire, educate, and inform with stories of science in classroom media, feature films, and journalism.

The Academic Science Pathway

Influencing academic science at key points along career pathways



HHMI Programs



Investigators

Entry: 5 to 15 years of leading a lab

Support: 7 years renewable indefinitely

Freeman Hrabowski Scholars

Entry: 0 to 5 years leading a lab

Support: 5 years renewable once

Hanna Gray Fellows

Entry: 0 to 2 years of postdoc experience

Support:
2 to 4 years postdoc
4 years faculty
non-renewable

Gilliam Fellows

Center for the Advancement of Science Leadership and Culture

PhD Training

Many more…

- Janelia Research Campus
- Education
- Institutional change
- …

HHMI Programs

Leslie Vosshall
Vice President & Chief Scientific Officer

Stephen Smale
Senior Scientific Officer

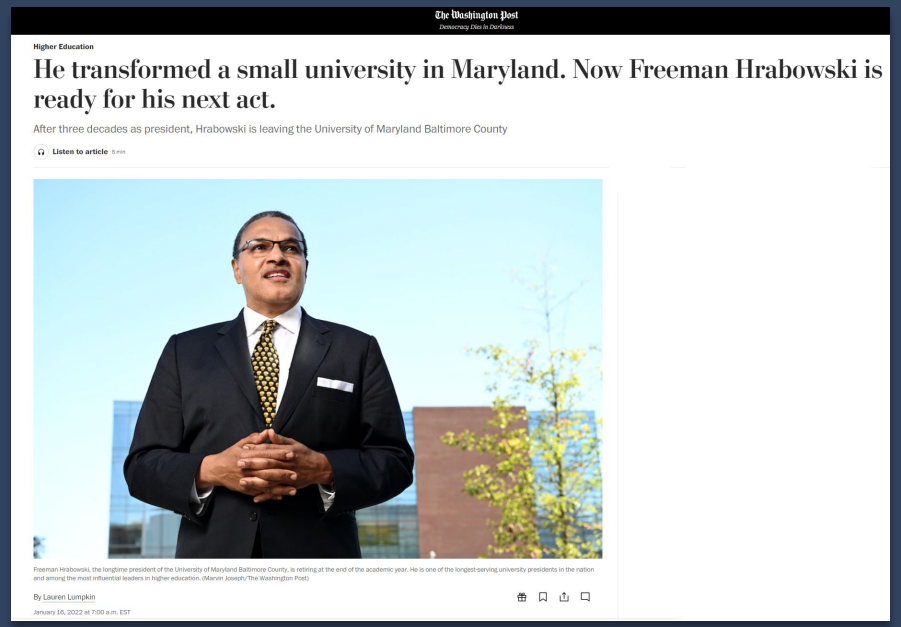
Mary Bonds
Science Program and Special Project Officer

Freeman Hrabowski Scholars

Entry: 0 to 5 years leading a lab

Support: 5 years renewable once

About Freeman Hrabowski



The Washington Post
Democracy Dies in Darkness

Higher Education

He transformed a small university in Maryland. Now Freeman Hrabowski is ready for his next act.

After three decades as president, Hrabowski is leaving the University of Maryland Baltimore County

Listen to article

Freeman Hrabowski, the longtime president of the University of Maryland Baltimore County, is retiring at the end of the academic year. He is one of the longest-serving university presidents in the nation and among the most influential leaders in higher education. (Marvin Joseph/The Washington Post)

By Lauren Lumpkin

January 16, 2022 at 7:00 a.m. EST

- President Emeritus of the University of Maryland, Baltimore County (UMBC)
- Mathematician, educator, author
- A national model for producing a diverse STEM workforce
- The UMBC Meyerhoff Scholars Program trained many of today's prominent Black scientific and medical leaders
- Catalyze outstanding science in early-career faculty labs
- Support outstanding mentors committed to creating inclusive lab climates through their strong mentoring and understanding of systemic exclusion and marginalization in science

HHMI seeks creative and innovative early career faculty for our new Freeman Hrabowski Scholars Program

Attributes of Freeman Hrabowski Scholars:

- outstanding basic researchers, including physician-scientists
- strong potential to become leaders in their fields
- advance diversity, equity, and inclusion through their mentoring efforts
- understand systemic exclusion and marginalization in science of trainees from different backgrounds
- prioritize scientific excellence in their own research while creating an inclusive lab climate that serves as a model

Program Structure

- Scholars become HHMI employees
- Appointed for an initial 5-year term, with renewal for another 5 years after a progress evaluation
- Full salary and benefits, along with $2M of research support for first 5 years ($3M for the second 5 years), and eligibility for HHMI's capital equipment program

Up to 30 Freeman Hrabowski Scholars will be selected in 2025, with future competitions anticipated every other year until 2031.
The competition is open to all eligible applicants.

Eligibility

Applicants must:

- have a PhD and/or MD degree
- be in a tenure-track (or equivalent) faculty position
- have begun their first post-training position and their tenure-track position within the last 5 years
- hold their tenure-track (or equivalent) faculty position at one of 300+ eligible US institutions (federal government employees are not eligible)

Application Components

- Description of 3 scientific contributions (e.g., publications, preprints, software, datasets)
- Description of ongoing and planned research
- Four Culture & Climate questions focused on mentoring, commitment to diversity, equity, and inclusion in science, and understanding of systemic exclusion and marginalization in science

Selection Process

- **Initial review** by external DEI leaders of Culture & Climate responses
- **Scientific review** by HHMI Investigators and other distinguished scientists of applicants with strong Culture & Climate scores
- **Virtual scientific interview:** Finalists prepare a recorded research talk and present an overview of their work before a scientific advisory panel
- **Virtual mentoring interview**: Finalists participate in an interview focused on mentoring and leadership skills
- **Final selections** will consider both scientific excellence and Culture and Climate assessments

FHS25 Culture & Climate Question 1

- Q1: Systemic inequity, exclusion, and lack of representation have impacted many researchers and research trainees in the United States as a result of their identity and background, including but not limited to race, ethnicity, national origin, gender, gender identity, sexual orientation, disability, and/or socio-economic status. **Please describe your personal and professional experiences and understanding of systemic inequity, exclusion, or lack of representation in academia, and how you arrived at this understanding. Please focus on experiences and/or understanding that form the foundation for your commitment to supporting those from traditionally marginalized identities and backgrounds**.

FHS25 Culture & Climate Question 2

- Q2: Beyond direct mentoring, please provide one or two **concrete examples of how you have improved or pursued improvement of inclusion in science, with evidence of the impact.**

FHS25 Culture & Climate Question 3

- Q3: **Please describe specific actions you have taken or plan to take to create an inclusive, collaborative, and effective training and mentoring environment, in which all trainees and staff can thrive.** If you have not yet started your independent position, discuss specific actions taken as a mentor of students during your own training period. Please provide concrete examples that illustrate your mentorship philosophy.

FHS25 Culture & Climate Question 4

- Q4: **Please describe one challenging mentoring experience** from your time as a mentee or as a mentor, **how it was resolved, and what you would do differently going forward**.

Inaugural Freeman Hrabowski Scholars Cohort

Advancing Science, Leadership, and Culture at HHMI: **Our Vision**

hhmi | Center for the Advancement of **Science Leadership & Culture**

Established November 1, 2022

Advancing Science, Leadership, and Culture at HHMI: **Our Vision**

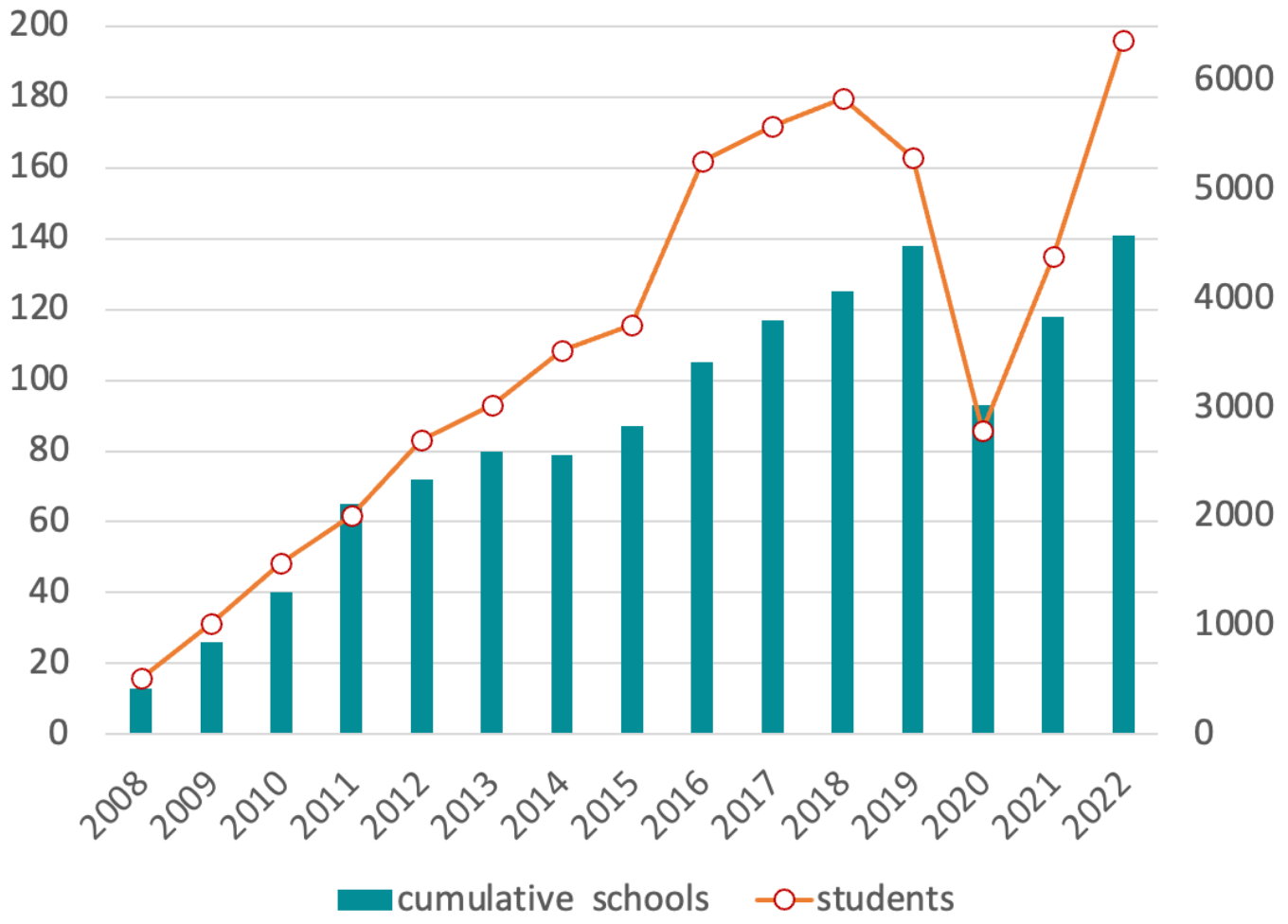
hhmi | Center for the Advancement of **Science Leadership & Culture**

To make science more accessible and inclusive so that those who advance scientific discoveries reflect the diversity of our society

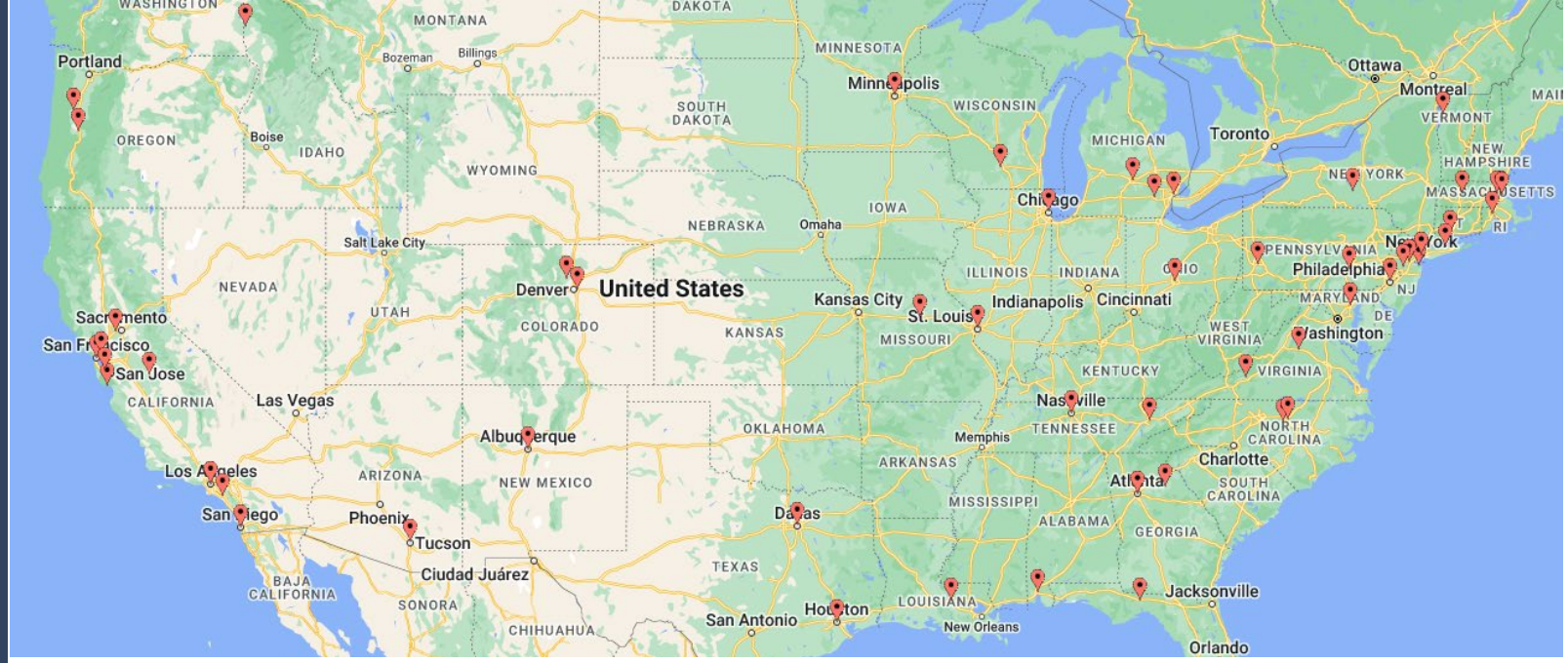
SEA Transforms undergraduate teaching labs into research labs

- Provides **authentic research projects** that engage students in the process of science and the thrill of discovery.
- Supports **educators as scientists** who mentor their students in authentic research.

hhmi | Science Education Alliance



- Since 2005, ~300 Gilliam Fellows have been supported with a 97% degree completion rate
- 147 current active fellows in 29 states and 66 institutions
- Gilliam Fellow advisors are required to take upskill themselves by completing a mentoring skills development course that is based on culturally responsive mentoring

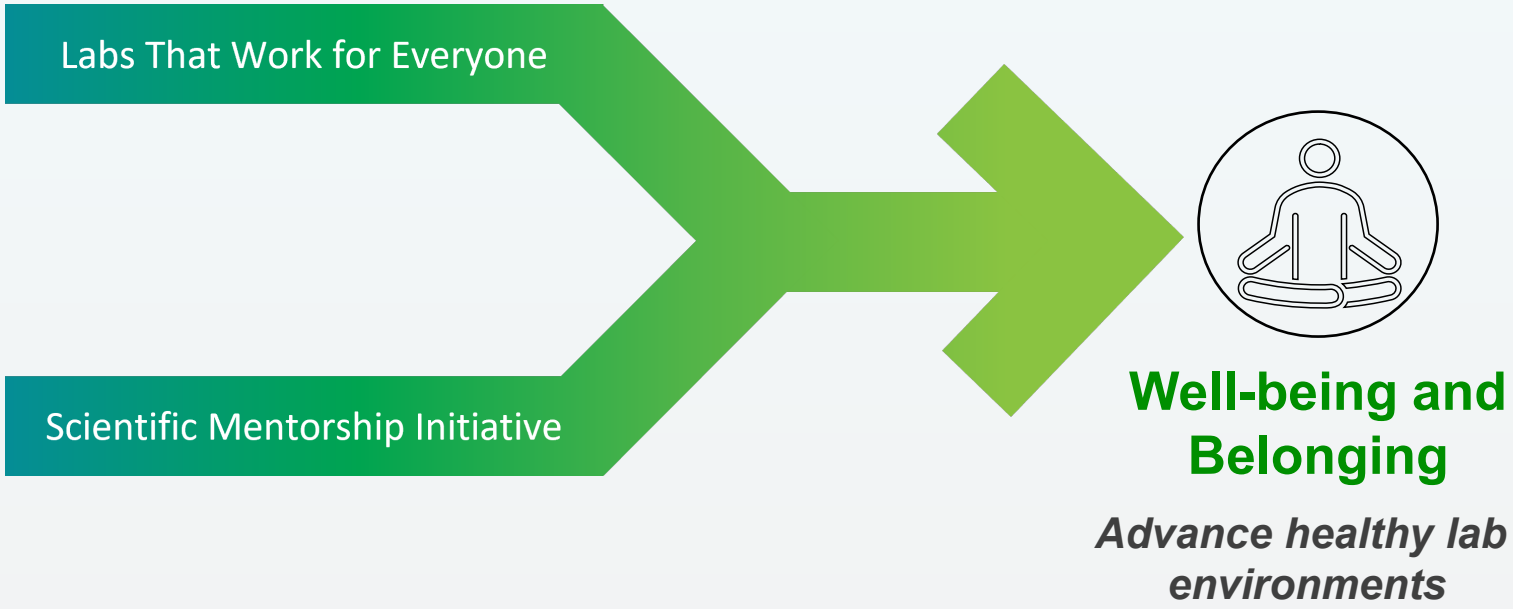


Gilliam Fellows Program

Scientific Professional Development

- Centered on Principled Leadership and Adult Learning
- Incorporates Culturally Responsive Mentoring Practices
- Designed for the entire lab, understanding that its an ecosystem

hhmi | Center for the Advancement of **Science Leadership & Culture**



References and Resources

SEA-PHAGES and SEA-GENES: Advancing Virology and Science Education

PMID: 38684129

Evaluation of a culturally responsive mentorship education program for the advisers of Howard Hughes Medical Institute Gilliam Program Students

PMCID: PMC9582832

Labs that Work for Everyone – Collaboration between HHMI and the National Center for Principled Leadership and Research Ethics (NCPRE) at the University of Illinois

https://labsthatwork.web.illinois.edu

Thank you!

Blanton S. Tolbert, PhD
Vice President of Science Leadership & Culture @ HHMI

www.hhmi.org

How will we measure success?

- Research accomplishments and career trajectories of Scholars
- Success in building equitable and inclusive labs
- Mentorship success, as measured by the persistence, subsequent positions, and accomplishments of trainees