

Diversifying the Biomedical Research Workforce with the *All of Us* Scholars Program

Multiple barriers stand in the way of cultivating and advancing scientists from under-represented minority groups in biomedical research. Recent years have brought heightened awareness of the value and necessity of preparing an inclusive next generation for careers in this field. This may be an inflexion point, where concerted action can leverage change. We invite you to partner with the National Institutes of Health (NIH) and Foundation for NIH (FNIH) in that change.

Importance of a Diverse Research Workforce

A diverse biomedical workforce is key to excellent science. It fosters innovation and discovery, improves the quality of research, and increases the likelihood that research outcomes will benefit all of us. Underserved groups, including racial and ethnic minorities, often bear disproportionate burden of disease and negative health outcomes. It is essential, therefore, that individuals from these communities be engaged in investigating solutions to these challenges. As the nation's medical research agency, NIH seeks to uncover and apply fundamental knowledge about the nature and behavior of living systems to enhance health, lengthen life, and reduce illness and disability. The *All of Us* Research Program, an ambitious effort to gather health data from one million or more people living in the United States to accelerate research to improve health, provides an important platform for NIH to help create a pipeline of innovative and highly talented researchers that reflects the rich diversity of the United States.

What Makes *All of Us* Unique from Other Programs?

The *All of Us* Research Program is an historic effort to collect and study data from one million or more people living in the United States, creating the largest dataset of its kind. Its mission is to accelerate health research and medical breakthroughs, enabling individualized prevention, treatment, and care for all of us. The study aims to reflect the diversity of the United States and to include participants from groups that have been historically underrepresented in health research.

The *All of Us* Research Program's Potential Impact

FNIH is working with the *All of Us* Research Program at NIH to increase diversity in the biomedical research workforce by providing training opportunities using the *All of Us* Research Hub as a foundational platform. The Research Hub includes publicly available aggregate data on more than 413,450+ participants through the [Data Browser](#). Researchers can register for the cloud-based [Researcher Workbench](#) platform to access row-level participant data and tools to conduct health research and improve understanding of health and disease.

This diversity and workforce development initiative will equip students and researchers at Minority Serving Institutions (MSIs) with the tools, skills, knowledge, and mentorship to navigate and utilize one of the largest and most important biomedical databases in the world.

Introducing the *All of Us* Scholars Program

The *All of Us* Scholars Program will leverage the *All of Us* data resource to train a cadre of diverse researchers on complex data analysis to advance the biomedical research enterprise, ensure the workforce reflects the rich diversity of our country, and maximize precision medicine discoveries. The program is also committed to ensuring the broader research community has access to the program's data resources, helping researchers analyze participant data while keeping information secure.

All of Us has identified several approaches that this training partnership will pursue, from adapting data science and coding courses to hosting formal training programs with strong mentorship components. NIH has also identified several opportunities to engage diverse communities to improve equitable access to the *All of Us* Research Hub, with a particular interest in building capacity at MSIs.

The goal of this initiative is to position more diverse researchers to contribute to and successfully compete in the 21st century economy. Experience with coding and programming languages are now vital skills in a variety of fields, so this partnership also has the potential to advance careers of diverse students beyond the biomedical research space.

The Five Priority Researcher Audiences

In collaboration with program partners, we engage researchers across 5 priority audiences:

K-12 AUDIENCES, INCLUDING TEACHERS



- University of Utah Data Browser Institute
- Co-funded NHGRI U24

UNDERGRADUATE, GRADUATE, AND MEDICAL STUDENTS



- Researchers Convention
- Research Scholars Program (RSP)
- Co-funded NHGRI U24
- DREF Research Accelerates Possibilities (R.A.P.) Sessions

POST-DOCTORAL STUDENTS AND EARLY-STAGE INVESTIGATORS



- NIMHD - RCMI Administrative Supplements U54
- RTI *All of Us* Researcher Academy
- BCM Biomedical Researcher Faculty Summit
- PRIDeNet Researcher Basecamp

ESTABLISHED INVESTIGATORS



- R21 & R01 funding opportunities
- RTI *All of Us* Researcher Academy

COMMUNITY AND CITIZEN SCIENTISTS



- IGNITE Train-the-Trainer Program
- National Library of Medicine
- Asian Health Coalition Community/Citizen Science Program
- PRIDeNet Researcher Basecamp

All of Us Scholars Program

Phase 1: 2023-2024

Phase 2: 2024-2025

Phase 3: 2026 +

Opportunities for Engagement

With unique expertise in supporting the implementation of education and training programs at NIH with investment from private and philanthropic funders, FNIH is collaborating with *All of Us* to establish this partnership to diversify and enhance the biomedical research workforce. FNIH seeks \$2.5 million in private and philanthropic support to match an equal investment from NIH over two years to launch and implement the program. This investment will create new, and augment existing, NIH-led programs in partnership with minority serving institutions and diverse communities across the country. Additionally, there are opportunities to provide in-kind donations in the form of tools and resources.

While the *All of Us* Scholars Program focuses on several recurring, application-based opportunities, we plan to add additional programs in a multi-phased approach. With investment and partnership, we can address gaps in our current approach while expanding opportunities available to researchers.

The graphic above highlights the 5 priority audiences the *All of Us* Scholars Program serves. It also details the Program's current activities and plans for expansion. Additional support will address gaps to:

- **Access:** Engage researchers underrepresented in the biomedical workforce across the program's five priority research audiences by expanding existing program partner opportunities.
- **Mentorship:** Promote mentorship and team science through a network of research partners for high school students and teachers using the Researcher Workbench.
- **Local Support:** Expand an institutional network of partner institutions with capacity to provide research opportunities for participating scholars through expanded MSI outreach.
- **Networking:** Host an annual in-person event at NIH main campus convening the scholars, mentors, and institutional partners to highlight outcomes of the *All of Us* Scholars Program and foster alumni networking.

To learn more about becoming a partner in the Diversifying the Biomedical Workforce with the All of Us Scholars Program project, please contact:

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