



2020 Baltimore HIV/AIDS Scholars Program Application

The Johns Hopkins University Center for AIDS Research (CFAR) is committed to developing the next generation of diverse HIV/AIDS investigators to conduct clinical, behavioral and implementation research.

Program Overview

The Baltimore HIV/AIDS Scholars Program was established in 2012 to promote the development of promising undergraduate students into HIV/AIDS investigators. Students conduct research under the direct mentorship of established Johns Hopkins researchers with the purpose of advancing science in the fields of HIV prevention and treatment that are specifically of relevance to the HIV epidemic in Baltimore City. Mentors are drawn from the schools of Medicine, Nursing and Bloomberg School of Public Health. The eight-week program runs from June 1 through July 27, 2020.. Applicants will include current JHU freshmen, sophomores, juniors and non-graduating seniors. The program is open to all majors. Students are paid \$15.00 per hour and may work up to 35 hours per week. **Please submit your application through Handshake.**

While the style and character of each research site varies considerably, all are composed of very dedicated and hardworking individuals who are more than willing to help others who are similarly committed to learning. The program culminates with the development of a scientific abstract and poster presentation. The posters are presented to CFAR at the conclusion of the program and to the university community in the fall semester. We ask that interested students fill out an application describing relevant course work, research experience and future plans regarding a career in science or health . We anticipate that 8 internships will be available for the summer of 2020.

Applications are due by Monday, March 16, 2020.

Students will be notified of their selection by March 20, 2020.

The available internships are below and listed on JHU Handshake.

2020 Internships

SPARC Center Internship

Primary Mentor: Susan Sherman, PhD, Professor of Health, Behavior and Society

Affiliation: Johns Hopkins Bloomberg School of Public Health

The SPARC Center (***Sex Workers Promoting Action, Risk Reduction, and Community Mobilization***) is a community empowerment, HIV prevention intervention aimed to reduce sexual- and drug-related HIV risk behaviors among female sex workers (FSW) in Southwest Baltimore. The SPARC Center offers a safe drop-in space for guests to: relax; access health, legal, and support services; and develop a sense of community connectedness. An intern in this in this setting will assist clients in accessing in-house resources such as showers and laundry services, as well as, providing administrative support, and other technical assistance necessary for the daily function of the drop-in space. Depending on skill-level and experience, this intern may also support clients in accessing resources and provide micro-counseling around safety and harm reduction best practices.

In addition to center-based responsibilities, this intern will work with our outreach program and engage members of the community in daytime outreach, to provide overdose prevention education, training, and tools at pop-up locations throughout Southwest Baltimore. They will further support the outreach team by tracking supplies and maintaining ongoing data entry. Additional opportunities for nighttime outreach, and representing SPARC at community-based events, may be available.

Biology of the HIV Latent Reservoir Internship

Primary Mentor: Annie Antar, MD, PhD, Assistant Professor of Medicine

Affiliation: Johns Hopkins School of Medicine, Department of Medicine, Division of Infectious Diseases

This is a lab-based basic and translational research internship using human samples to make fundamental observations about the biology of the HIV latent reservoir. The HIV latent reservoir is the barrier to curing HIV, and therefore a deeper understanding of the latent reservoir will lay the groundwork for a potential HIV cure. Dr. Antar works in a large lab group headed by Dr.s Bob and Janet Siliciano. The Siliciano lab has been at the forefront of HIV cure research for over twenty years. A dynamic and fun environment in which to gain basic and translational lab skills, the Siliciano lab is comprised of ~20 undergraduate students, graduate students, post-docs, techs, and faculty members. The intern will be directly mentored by Dr. Antar and learn lab-based molecular biology and virology techniques. Opportunities to shadow Dr. Antar and other infectious diseases physicians, and to continue working in the lab during the school year for credit, may be arranged. An eagerness to learn new skills and attention to detail is key. Previous laboratory experience is preferred but not required.

Molecular and Comparative Pathobiology Internship

Primary Mentor: Kenneth Witwer, PhD

Affiliation: Johns Hopkins School of Medicine - Department of Molecular and Comparative Pathobiology

The internship will involve the use of molecular and cellular biology techniques to research host responses to retroviral infection and determinants of pathogenesis. Tasks may include isolation, culture, and experimental treatment of blood cell subtypes; measurement and characterization of submicron-sized particles in blood and other biofluids by nanoparticle tracking analysis; and quantitation of coding and non-coding RNA molecules by real-time quantitative polymerase chain reaction. Interns will have the opportunity to analyze data, participate in and contribute to weekly lab meetings and journal clubs, and report internally and externally on the outcomes of their research. Interns should have basic computer skills, including an ability to use Excel and Word to prepare graphs and reports. Previous laboratory experience is preferred but not required.

HIV Behavioral Research Internship

Primary Mentor: Cui Yang, PhD, Assistant Professor of Health, Behavior and Society

Affiliation: Johns Hopkins Bloomberg School of Public Health

Interns will assist with two NIH-funded studies focused on mental health, HIV and neuroimaging experiment among gender and sexual minority men in the city of Baltimore. Tasks will include data collection, outreach, and dissemination activities. Interns may be involved in community engagement, recruitment, survey administration as well as analysis of data and production of reports. Must be able to work well with study population and/or other marginalized and diverse populations as well as independently. Strong communication skills necessary and strong writing skills a plus. Proficiency with Microsoft Office required. HIV pre- and post-test counseling certification preferred.

Biology of the HIV Latent Reservoir Internship

Primary Mentor: Robert Siliciano, MD, PhD, Professor of Medicine

Affiliation: Johns Hopkins School of Medicine, Department of Medicine, Division of Infectious Diseases

The Siliciano lab has been at the forefront of HIV cure research for over twenty years. A dynamic and fun environment in which to gain basic and translational lab skills, the Siliciano lab is comprised of ~20 undergraduate students, graduate students, post-docs, techs, and faculty members. The intern will be directly mentored by Dr. Antar in a lab-based project using human samples to better understand the biology of the HIV latent reservoir. The HIV latent reservoir is primarily composed of CD4+ T cells that harbor an HIV genome integrated within the host cell's genome. These cells are the barrier to curing HIV, and therefore a deeper understanding of the latent reservoir will lay the groundwork for a potential HIV cure. The intern(s) will learn lab-based molecular biology and virology techniques, and opportunities to continue working in the lab during the school year for credit are available. Proficiency with Microsoft Word and Excel is expected. Previous laboratory experience is preferred but not required.

If you have questions about any of the internships please email Jordan White, CFAR Baltimore HIV Collaboratory Coordinator, jjwhite@jhu.edu.

If needed, Jordan will put you in touch with the appropriate staff or faculty member to assist you.

CONTACT INFORMATION

Name: _____

Current Address: _____

City: _____ State: _____ Zip code: _____

Permanent Address: _____

City: _____ State: _____ Zip code: _____

Permanent Telephone: _____ Cell Phone: _____

E-mail: _____

INTERNSHIP PREFERENCE

1. _____

2. _____

EDUCATIONAL & OTHER INFORMATION

Year/Level: _____ Major: _____

GPA: _____

JHU Advisor's Name / Email: _____

Department: _____

Do you currently have health insurance? _____

Health Insurance Carrier: _____

Emergency Contact Name & Telephone:

DEMOGRAPHIC INFORMATION

The following questions relate to the University’s voluntary efforts to enhance diversity in keeping with its education and research missions. They provide important data for assessment of our diversity initiatives and assist us in matching program applicants with appropriate funding sources. This information is not used in making any admission decision. All information is confidential.

Date of Birth: _____ Sex: _____ Male _____ Female

Citizenship: _____

Please indicate the group(s) listed below to which you belong:

Hispanic Origin: _____ Hispanic or Latino _____ Not Hispanic or Latino

Racial Identifiers:

- American Indian or Alaska Native
- Asian
- Black/African American
- Native Hawaiian or other Pacific Islander
- White/Caucasian

Other:

- First Generation College Student
- Born in Baltimore City
- Attended/Graduate of Baltimore City Public High School
- Attended Private School in Baltimore City
- JHU Baltimore Scholar

PERSONAL STATEMENT

Please describe your interest in the Baltimore HIV/AIDS Scholars Program, including your academic and research background, accomplishments and future science career plans and goals. *Two Page Limit.*

TRANSCRIPT & RECOMMENDATION

An unofficial transcript is required. Please upload to JHU Handshake with this application. The Recommendation Form should be submitted by March 16 by your recommender to jjwhite@jhu.edu .