

Postdoctoral position in single-cell genomics of HIV-induced immune dysfunction Ho Lab, Yale University School of Medicine

The [Ho Lab](https://medicine.yale.edu/lab/yachiho/) at Yale University School of Medicine (<https://medicine.yale.edu/lab/yachiho/>) is recruiting motivated, productive, independent, and collegial postdoctoral research associates interested in innovative single-cell genomics on HIV-induced immune dysfunction and HIV persistence. This postdoctoral researcher will combine wet-bench **molecular biology** methods, dry-lab **bioinformatic analysis**, and a **translational** approach using clinical samples from people with HIV. The overall goal is to understand mechanism of HIV persistence and guide the development of HIV cure strategies.

Funded by several NIH grants (R01, R61, and UM1), our lab provides a collaborative environment and multi-disciplinary training for scientific and career development. Our lab has a [track record](#) of training postdoctoral researchers: our postdocs have international conference presentations and first-authored original articles (Science Translational Medicine and JCI) within three years after they joined the lab. Our lab members have received New Investigator Award, pilot award, and travel grant in the past three years. Our lab is dedicated to recruiting researchers from a diverse background.

The postdoctoral training will involve (a) the development and application of **innovative single-cell RNAseq methods** (see [Science Translational Medicine](#)), (b) bioinformatic analysis of single-cell genomics datasets (see [bioRxiv](#)), (c) a translational approach using blood or tissue **samples from humans**, (d) wet-bench methods in virology (such as sterile cell culture in an enhanced biosafety level 2 (BSL2+) lab), immunology (such as flow cytometry), and molecular biology (such as CRISPR, real-time PCR, and western blot)(see [Journal of Clinical Investigation](#)), (e) collaboration with other researchers both inside and outside of Yale, including virologists, immunologists, bioinformaticians, computer scientists, and clinicians, (f) presentation in international conferences, and (g) manuscript preparation and grant applications.

A successful candidate will likely have (a) **a recent (<4 years) PhD degree** in genetics, microbiology, molecular biology, immunology, or a related discipline; (b) a track record of research productivity, as evidenced by **first-authored original publication(s)** in high-quality peer-reviewed journals; (c) experience in **programming languages** such as R or python; (d) willingness to work with HIV+ samples following BSL2+ procedures; (e) independence to lead a project as well as willingness to work in a team; (f) an open mind to learn new methods from junior researchers and collaborators; (f) good scientific presentation and writing skills. **Previous experience and publications in bioinformatics, immunology, or virology** is preferred but not required. A successful candidate should expect the initial scope of work to be similar to our recent work posted at [bioRxiv](#). People who have no interest in bioinformatic analysis should not apply. Salary will commensurate with experience and qualifications.

Interested candidates may send a CV, a personal statement, and the contact information for three referees to ya-chi.ho@yale.edu. Applications will be reviewed on a rolling basis until the position is filled.

Related publications:

[Collora et al., bioRxiv 2021](#), <https://www.biorxiv.org/content/10.1101/2021.01.27.428491v1>

[Liu et al., Science Translational Medicine 2020, PMID 32404504](#)

[Yeh et al., Journal of Clinical Investigation 2020, PMID 32573496](#)

Pollack et al., Cell Host Microbe 2017, PMID 28407485

Ho et al., Cell 2013, PMID 24243014

Yale University is an Affirmative Action/Equal Opportunity employer. Yale values diversity among its students, staff, and faculty and strongly welcomes applications from women, persons with disabilities, protected veterans, and underrepresented minorities.