

Imagine playing a key role in groundbreaking research that could redefine our understanding of **human physiology and disease**. The **Yang Lab of Computational and Systems Biology** will officially open in the Department of Genetics & the Human Genetics Institute of New Jersey at **Rutgers, The State University of New Jersey** on **1/1/2024**. We are actively searching for ambitious **students, postdocs, and staff members**, who are talented and motivated. As part of our team, you will be at the forefront of an interdisciplinary venture, bridging the gap between computer science and biology. Embrace the opportunity to work in a vibrant, synergistic and open environment where collaboration sparks innovation.

About the PI Jiekun (Jackie) Yang:

- Ph.D. in statistical genetics with Dr. Ming Li @University of Virginia (UVA)
- Postdoc:
 - cancer epigenomics with Dr. Mazhar Adli @UVA (2016-2019)
 - single-cell technology with Dr. Sunney Xie @Harvard (2019)
 - single-cell disease with Dr. Manolis Kellis @MIT & Broad Institute of MIT and Harvard (2019-2023)
- Assistant Professor of the Department of Genetics & the Human Genetics Institute of New Jersey @Rutgers, The State University of New Jersey (2024-)
- NIH T32 Harvard training program award, MIT Alana Fellowship, UVA Cancer Center Trainee award

Our laboratory is a thriving hub of innovation, where we blend the power of **advanced sequencing techniques** with **sophisticated computational strategies**. We delve deep into the mysteries of cellular and molecular mediators, exploring their roles in physiological and pathophysiological responses across various tissues and throughout the entire organism. Each study we conduct brings us closer to unlocking the complexities of human biology, creating potential paths for new therapeutics and revolutionizing our understanding of life itself.

We focus on key diseases like **obesity** (Cell Metabolism 2022, Cell Reports 2023), **cancer** (Genome Biology 2018, Cancer Research 2019, PNAS 2020, Developmental Cell 2021), and **Down Syndrome**. Paired with research on complex interventions such as **exercise** and **immunotherapy**, our goal is a systemic grasp of human physiology at molecular level, comprehensive cellular understanding across tissues and diseases, and precise drug target prediction.

Join us! We're welcoming both **computational and experimental experts at different levels**. Computational enthusiasts should bring solid skills in computer science (programming, statistics, machine learning) and computational biology (genomics,

epigenomics, statistical genetics, single-cell biology). On the experimental side, we appreciate expertise in next-generation sequencing, CRISPR-Cas9, cell culture, and tech development. We're also on the lookout for a **lab manager** to oversee lab activities, coordinate teams, manage supplies, and liaise with vendors.

Postdocs, research scientists, and research assistants (postbacs), follow these steps:

1. Complete the [application form](#).
2. Email your CV and list of publications to jkyang@mit.edu.

Ph.D. applicants interested in joining us at Rutgers, consider applying through [Molecular Biosciences](#), [Quantitative Biomedicine](#), or [MD/PhD](#) programs. Indicate your interest in our lab during the application process. Once admitted, contact Dr. Yang to arrange lab rotation timelines and projects.