

Gladstone Institute of Data Science and Biotechnology, Doudna Lab

<https://gladstone.org/> <https://doudnalab.org/>

San Francisco

\$25/hr, 40 hours /week

June 16 – Aug 22

About

The Doudna laboratory is an academic research group at the Gladstone Institutes and Innovative Genomics Institute (IGI). We aim to discover how RNA molecules and RNA-binding proteins control the health of cells. We have four areas of research:

- 1) Structure and mechanism of RNA and RNA binding proteins
- 2) Development of new genome editing tools
- 3) Diagnostic applications of CRISPR-Cas enzymes
- 4) Genome editing in plants and mammals

Our research at the Gladstone Institutes on the UCSF Mission Bay campus is specifically focused on understanding and developing applications of genome editing technologies for treating human disease.

The Gladstone team includes about 10 postdocs, research associates, bioinformaticians, and undergraduate interns. We have approximately 60 members spanning both the Gladstone Institutes and the Innovative Genomics Institutes. At the Gladstone Institutes, we operate within an open office and bench floor plan designed to encourage scientific interactions between lab members and research groups. We are highly collaborative and collegial. Most team members work on-site five days a week, with schedules tailored to accommodate the demands of wet-lab experiments. Interns are expected to work a standard 40-hour week in person and participate in lab meetings. Lab meetings take place once per week on average, where one lab member presents research updates. Lab members also participate in sub-group meetings (1-2 per week) and symposia as they are available.

The Doudna Lab is committed to inclusivity and welcomes interns of all backgrounds. We believe that diversity and excellence are fundamentally interconnected.

The Doudna lab at the Gladstone Institutes is seeking one FirstGen Intern to join the lab.

Research Intern

SCOPE

The Doudna lab at the Gladstone Institutes is focused on delivering genome editing enzymes to specific cells in the body. We are working on projects to make it easier to deliver tools that can edit genes into cells, especially outside the liver. To do this, we want to create special particles inspired by viruses to carry these tools into immune cells. As a Research Intern, you will help test how different parts of these virally-derived particles affect their ability to edit genes in cells. More information on the virally-derived particles can be found [here](#) and [here](#).

During the 10-week internship, you will perform molecular biology techniques (including, PCR, plasmid cloning, and gel electrophoresis) and mammalian cell culture techniques (including, sterile technique, cell counting and transfections). You will work as part of a team and learn how your experiments help address questions within a larger project. By the end of the internship, you will be able to conduct experiments, analyze the results and present your findings. This internship is ideal for individuals considering a career in biomedical research.

RESPONSIBILITIES

- Keep organized and detailed notes on experiments and scientific literature
- Attend lab meetings
- Clone plasmids
- Maintain mammalian cell cultures
- Present complete work at the end of the internship

MUST-HAVE QUALIFICATIONS

- Must have taken at least one course with a wet-lab component, preferably in biology or chemistry
- Able to conduct tasks on schedule

- Able to follow instructions and research protocols
- Can maintain detailed and well-organized records and notes of experiments
- Can communicate with team members about research progress, plans, and challenges
- Can seek help from team members when facing challenges with research progress, plans, or tasks

NICE-TO-HAVE QUALIFICATIONS

- College Major(s): Molecular Biology, Biology, Biomedical Engineering, Bioengineering, Biochemistry.
- Student Year: Sophomore, Junior, Senior or Recent Graduate
- Excited to learn molecular biology techniques
- Experience with molecular and cell biology techniques including PCR, cloning, DNA extractions, transfections and mammalian cell culture
- Excited to solve problems
- Able to plan an experiment with positive and negative controls
- Creative and able to brainstorm new ideas
- Interested in pursuing a career in biomedical research