Research opportunity, George Church Laboratory, Harvard Medical School

PI: George Church, PhD

https://arep.med.harvard.edu/gmc/

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Overview: The Church lab has pioneered development of technologies for genome sequencing, DNA assembly, genome editing, writing, and recoding, machine learning for protein engineering, tissue reprogramming, organoids, gene therapy, aging reversal, xeno-transplantation, and *in situ* 3D DNA/RNA/protein imaging. We are interested in designing new-to-nature biological systems that can have real-world applications, and which expand our understanding of natural biological systems.

A few exciting research opportunities are currently available. Students will have the opportunity to contribute to research projects such as:

1. Development of new genome editing and directed evolution methods
2. Expanding the number of open codons to be used to translate proteins with chemistries beyond what is available in nature
3. Engineering of enzymes containing multiple instances of nonstandard amino acids

Skills required: students with prior laboratory experience are encouraged to apply. Students will have the opportunity to work with senior scientists in the lab and be trained in lab techniques.

Learning outcomes: The student will develop a broad set of research skills. This is an opportunity to learn advanced techniques at the bench and also develop experience in developing novel research directions. Over time, the student will develop increased independence in understanding of subject matter related to their project, experimental design, and data analysis. The student will have opportunities to present data in both individual meetings and group settings.

Mentorship: The student will receive mentorship from a postdoctoral fellow in the lab, and meetings with PI.

If interested, please submit a brief statement of interest and your CV to Dr. Felix Radford at felix_radford@hms.harvard.edu