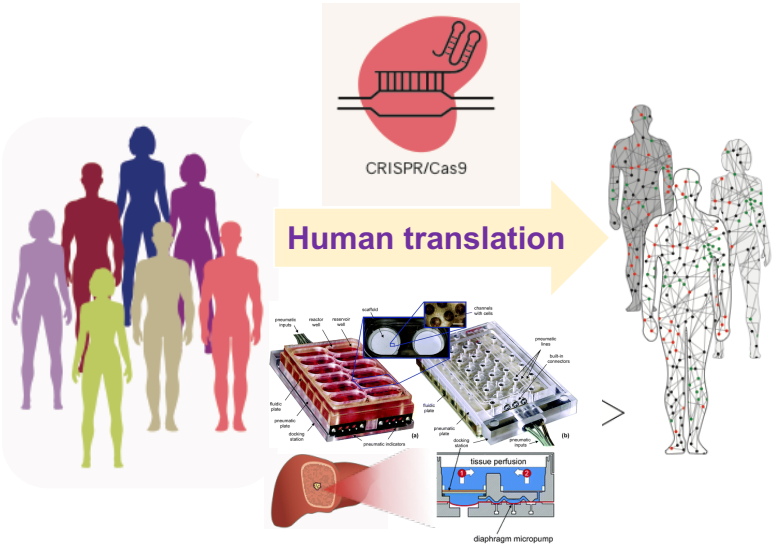
University of Pittsburgh

The laboratory of Dr. Samira Kiani at University of Pittsburgh School of Medicine and Pittsburgh Liver Research Center is looking for an outstanding, highly motivated, and self-driven postdoc candidate to join a collaborative research program on gene editing and bioreactor liver chip technologies.

Kiani lab is interested in using the designer DNA binding proteins such as Clustered Regularly Interspaced Short Palindromic repeat (CRISPR) and Zinc Finger proteins to develop novel gene and (epi)-gene editing tools to address human diseases. Along this notion, human microphysiological systems that can report on immune response to and toxicity following the application of gene editors to human tissues are crucial in developing clinical gene editors. We work with Liver on a Chip platform, a 3D perfusable system that allows us to develop and maintain human liver tissue over extended period of time. We use patient specific cells to assemble immune-competent liver tissues in this platform and analyze their response to gene editing events through high through put assays such as transcriptomics, genomics and Luminex assays. The goal is to develop biomarkers and predict response to gene editing in human tissues.



We have contributed to the development of efficient CRISPR-based transcriptional repressors (*Nat Methods. 2018 Aug;15(8):611-616*), strategies to control gRNAs fr om RNA Pol II promoter (*ACS Synth Biol. 2018 Aug 17;7(8):1929-1936.*) CRISPR layered control circuits and the immunogenicity of streptococcus Pyogenes CRISPR in human (*https://doi.org/10.1101/360198*).

The lab is located within world-class Pittsburgh Liver Research Center, which is home to cutting edge interdisciplinary research program on Liver diseases. The project is part of Somatic Cell Genome Engineering Consortium which provide unique opportunity for interaction with the rest of gene editing and delivery community at MIT, U Berkley, University of Wisconsin, and elsewhere.

In this position, you will have the opportunity to lead cutting edge project on the application and delivery of CRISPR in human liver Chip bioreactor platforms and participate in monthly meeting with the rest of consortium members. You will be responsible for experimentally managing the project, and contribute original ideas in carrying out the varied facets of the research endeavor and expansion of the lab operation including writing grants.

Minimum/Basic Qualifications: experience in any of the following: standard molecular biology techniques including PCR, gel electrophoresis; mammalian cell culture maintenance, viral vectors. Experience with qPCR, ELISAs, and confocal microscopy• MD or PhD degree on a related field of study (genetics, microbiology, biology, bioengineering, molecular biology, and/or cell biology). A good track record of publication is required.

Appointment: This position reports to Dr Samira Kiani and is working in Pittsburgh Liver Research Center and main campus of Pittsburgh University School of Medicine. The position is a full-time, benefits eligible, fiscal appointment with a flexible start date of sometime between September 2020 and December 2020 with the possibility of renewal annually, dependent on available funding, performance and the needs of the University. The salary will be according to NIH Pay line scales for postdocs. Applications will be reviewed weekly until the search is closed. A background check is required for employment. University of Pittsburgh is an equal opportunity/affirmative action employer committed to excellence through diversity. Women and minorities are encouraged to apply.

Interested candidates should contact Dr. Samira Kiani (samira.kiani@pitt.edu) with their CV, cover letter, and contact information of at least 2 referees included in the email.