



UNIVERSITY *of* CALIFORNIA, SAN DIEGO

SCHOOL OF MEDICINE

Division of Endocrinology and Metabolism

Postdoctoral position available: functional genomics in metabolic disease

PI: Amit R. Majithia, MD

Associate Professor, Department of Medicine
School of Medicine, UCSD

Summary

The Majithia Lab at UC San Diego is seeking a creative and driven postdoctoral researcher (holds PhD with < 2 years of prior postdoc) to investigate the molecular genetic basis of metabolic diseases (T2D, fatty liver, cardiovascular disease) using functional genomic screens. Our mission is to identify and therapeutically target the molecular drivers of insulin resistance to prevent diabetes and its complications. This position will include applying perturb-Seq, functional genomics, and single-cell and bulk transcriptomic analyses of patient derived tissues to identify factors regulating insulin sensitivity, lipid metabolism, and secretion of novel hormones, using adipocytes, hepatocytes, and primary patient-derived cells.

Applicants with deep wet lab expertise in metabolic cell types such as adipocytes, liver and muscle who are motivated to expand into the dry lab domain are especially encouraged.

The successful candidate will be appointed in the Department of Medicine at the UCSD School of Medicine and work in a state-of-the-art genomics laboratory at the center of the La Jolla campus with neighboring colleagues in cancer and cardiovascular genomics, as well as systems biology, neurodevelopmental genetics, and metabolomics.

Responsibilities

- Design and execute pooled/arrayed CRISPR screens (bulk and/or single-cell) to map gene element function in human metabolic cell models including primary adipocytes and iPSCs.
- Build/optimize assays (e.g., FACS-based, reporter systems) and validate hits with orthogonal methods (e.g., base-editing, CRISPRi/a).
- Analyze data with the team; prepare manuscripts, conference presentations, and (if applicable) fellowship applications.
- Collaborate across bioinformaticians, clinicians, and bench scientists to contribute to an inclusive, open science culture.
- Apply for fellowship and career development opportunities.

Requirements

- PhD (or MD/PhD) in Genetics, Molecular Biology, Systems Biology, Bioengineering, or related.

- Hands-on experience in molecular cloning, mammalian cell culture, and CRISPR screening and/or single-cell profiling.
- Expertise in adipocyte, hepatocyte and other metabolic cell biology.
- Publication record demonstrating research excellence.
- Strong communication and collaboration skills.

Preferred Qualifications

- Familiarity with stem cell culture and differentiation.
- Experience using massively paralleled screening techniques including CROP-seq and Perturb-seq.
- Interest in and understanding of human genetics/GWAS.
- Experience with data analysis in R/Python.

To Apply

Send a CV, at least two references, and a one-page statement of research interests and career goals to Amit Majithia, MD at majithialab@health.ucsd.edu.