

Postdoc Positions

Dr. Haojie Huang Cancer Epigenetics and Functional Genomics Laboratory

Mayo Clinic

Rochester, Minnesota, USA

<https://www.mayo.edu/research/labs/cancer-epigenetics-functional-genomics>

Epigenetic deregulation and aberrant gene transcription often lead to human diseases such as cancer. The research program in Professor Haojie Huang's laboratory at Mayo Clinic primarily focuses on regulation and function of biologically significant transcription factors or epigenetic regulators that control gene transcription, such as transcription factors (androgen receptor (AR), FOXO1 and ERG), ubiquitin E3 ligase mutated in cancer such as SPOP, histone/chromatin modifiers (methyltransferase EZH2 and histone demethylase LSD1). Using the state-of-the-art approaches including mouse genetics, gene editing including CRISPR/Cas9 sgRNA library-based throughput screening, biochemistry, molecular and cell biology, high throughput sequencing (RNA-seq, ChIP-seq, RIP-seq, polysome-seq, and CLIP-seq), and bioinformatics, Dr. Huang's laboratory aims to elucidate the role of deregulated PTEN/FOXO1 pathway in prostate cancer survival, glucose and lipid metabolism and metastasis; the role of aberrant activation of oncogenes such as ERG and inactivation of tumor suppressor genes such as SPOP in prostate tumorigenesis; and the importance of chromatin microenvironment, epigenetic modulators and non-coding RNAs such as enhancer RNAs (eRNAs) and long non-coding RNAs (lncRNAs) in prostate cancer initiation and progression. A latest research direction in Huang lab is to investigate the molecular mechanisms underlying the deregulation of signaling pathways regulating cancer immunity and the applications of the findings for cancer immunotherapy. Findings from Dr. Huang's research have been published in high-profile journals including *Science*, *Nature Medicine*, *Nature Cell Biology*, *Molecular Cell*, *PNAS*, *EMBO J*, *EMBO Mol Med*, *Gut*, *Hepatology*, *Cancer Research*, *Nucleic Acids Research*, *European Urology*, *Clinical Cancer Research*, etc.

Multiple postdoc positions are currently available in Dr. Huang's laboratory. The salary will meet the NIH standard (starting from \$47,000). The trainees are expected to travel once or twice each year to visit collaborator's laboratory in China. Well trained, motivated Ph.D. and/or M.D. graduates who are interested in the research in Dr. Huang's laboratory are encouraged to send application to Dr. Huang (huang.haojie@mayo.edu).