



COLUMBIA UNIVERSITY
College of Physicians and Surgeons

IGM Institute for
Genomic Medicine

Postdoctoral Research Scientist

Institute for Genomic Medicine (IGM)

The newly developed Institute for Genomic Medicine (IGM) is an integral part of Columbia University's Precision Medicine Initiative. As part of this Initiative, the IGM sequences and performs comprehensive genomic analyses on more than 10,000 patient genomes per year in order to identify new therapeutic targets of neurodevelopmental disorders with a focus on epilepsy. The IGM utilizes mouse models and human pluripotent stem cells to understand how the implicated mutations contribute to disease phenotypes at the gene-cell-circuit levels.

The laboratory of Yueqing Peng is looking for two postdoctoral scientists to investigate the neurobiology of sleep and the links between abnormal sleep and neuropsychiatric disorders using mouse models. One position is in the area of molecular neuroscience, cell biology, and mouse genetics. Candidates should have a strong interest in understanding brain circuits. Experiences on making BAC construct or virus vector (AAV, lentivirus) are desirable. The other position is in systems/circuit-level neuroscience with a behavioral component. Prior experience and publication on *in vivo* physiology, preferably in behaving animal are essential. Experience with programming skills (Matlab, Python) is desirable.

In the Peng lab, we apply multidisciplinary approach including *in vivo* electrophysiology, *in vivo* calcium imaging, optogenetics, chemogenetics, viral-based neural tracing, molecular biology, and mouse genetics to study the biology of sleep. We are also interested in the relationship between sleep alterations and neurological/psychiatric disease, such as epilepsy and mood disorders. All candidates must have a PhD in neuroscience, physiology, genetics, or equivalent. The applicant should be self-motivated, possess excellent communication and interpersonal skills, and be able to work independently as well as within a team. If interested, please send a CV and references to yp2249@cumc.columbia.edu.