

We are looking for a postdoctoral research associate to join an exciting interdisciplinary collaborative project on in vivo imaging of human brain epigenetic activity. The multidisciplinary team on this project includes Professors [Ryan Dilger \(Animal Sciences\)](#), [Fan Lam \(BIOE\)](#), [King Li \(CI-MED\)](#), [Zhi-Pei Liang \(ECE\)](#), [Gene Robinson \(IGB, Entomology\)](#) and [Scott Silverman \(Chemistry\)](#). The candidate will have the opportunity to work and interact closely with this group of scientists with diverse expertise, ranging from genomics, DNA chemistry, physiology, nutritional sciences, biomedical imaging to machine learning, and perform cutting-edge research at the intersection of genomic biology and molecular imaging.

The successful candidate will be working on genomic DNA labeling using dietary intervention on biomedical pig models and mass spectrometry analysis of DNA extracts from pig brains. The candidate will be using molecular biology tools for DNA/RNA extraction from brain tissue samples, and learning a range of tools including DNA sequencing, mass spectrometry and NMR spectroscopy for analyzing these samples. The candidate will also have the opportunity to participate in the development of MRI and $^1\text{H}/^{13}\text{C}$ spectroscopy techniques on ultrahigh field systems (human 7T and animal 9.4T) for imaging brain epigenetics.

Required qualifications include a good understanding of genomic biology, background in molecular biology and biochemistry or physical chemistry, experience in handling animal tissue samples and cell cultures (e.g., cancer cell or neuronal cell culture), and experience in DNA and RNA extraction (from tissues and cells) and handling. Knowledge and experience in mass spectrometry, NMR spectroscopy and/or transcriptomics will be a plus.

Funding for this position is available for 2 years and the appointment will be renewed on an annual basis. Extension is possible depending on funding availability. Applications will be evaluated starting on **October 1, 2020** and continuing as additional applications are received. The position will be available starting as soon as **November 1, 2020**, with negotiable start date through **January 2021**. For more information and to apply, please contact or send your CV to: Prof. Fan Lam (fanlam1@illinois.edu)