Postdoctoral Researcher (The Ohio State University, Comprehensive Cancer Center and Human Nutrition Program)

Position Overview

The Zhu lab in The Ohio State University Comprehensive Cancer Center and Human Nutrition Program is looking for motivated postdoc to join the lab. The Post-Doctoral Researcher will utilize mass spectrometry techniques (both GC-MS and ESI-LC-MS) to identify biomarkers and therapeutic targets by `Omics' approaches. The successful candidate will perform metabolomic analysis and combine results with systems biology, statistical, and bioinformatic approaches in *in vitro* models, animal models, and humans to identify diagnostic and therapeutic biomarkers from human gut microbes that may contribute to the development or the treatment of metabolic and cancer diseases. This candidate will also have the opportunity to perform metabolomics analysis in a variety of nutritional and cancer research projects.

The Post-Doctoral Research will play a pivotal role in all phases of the research cycle including experimental design, sample prep, data collection, data analysis and interpretation as well as manuscript preparation. He/she will actively engage in method development and validation, reviews of appropriate literature, and providing troubleshooting assistance within the laboratory. The idea candidate is self-motivated, takes initiative, and works well with a variety of personalities and skills levels.

Position Environment

This role will work within the Health and Nutritional Metabolomics Lab directed by Dr. Chris Zhu, Assistant Professor in the Department of Human Sciences and Member of the Comprehensive Cancer Center at The Ohio State University (OSU), in Columbus, Ohio.

The Zhu laboratory uses targeted/untargeted metabolomics and ambient mass spectrometry along with in vitro model systems, animal models, cell culture studies, and clinical studies to integrate basic research into translational nutrition and medicine. Our lab is currently funded internally by support from OSU and the Comprehensive Cancer Center, OSU Discovery Theme Food for Health Initiative, and externally by National Institute of Health, the United State Department of Agriculture, and the Department of Defense. This is a position with the initial contract for one-year term and the potential to be renewed for additional year(s) based on performance.

The Ohio State University located in the city of Columbus, OH, USA, which is the 14th-most populous city in the United States and one of the fastest growing large cities in the nation. OSU is among the top 12 U.S. public research universities and 3rd among all universities in industry-sponsored research (National Science Foundation). It is also named as one of the most innovative universities in the nation (U.S. News & World Report) and in the world (Reuters).

If interested in this position, please **contact Dr. Chris Zhu (zhu.2484@osu.edu)**. Please attach CV including education background, publication list and at least three names and email addresses of references. Additionally, please submit a summary of previous and current research and future plan (1-2 pages) in the Cover Letter or Other document attachments within the application.

Basic requirements for the candidate include:

• Ph.D. in Chemistry, Microbiology, Biochemistry, Bioinformatics, Computational Biology or Related fields

• Established records in peer-reviewed scientific publications

• Strong analytical capability and excellent problem-solving skills

• Self-motivated, objective-orientated, and able to take on research project independently

Additional desired skills/experience:

• Background and hands-on experience in qualitative and/or quantitative mass spectrometry, including GC-MS, LC-MS, and HPLC is preferred but can be obtained during the training

• Experience in metabolomics, proteomics and/or other omics techniques

• Experience in bioinformatics, and comprehensive data analysis using statistical tools preferred

• Experience in molecular biology and/or microbial metabolism studies is desired

• Experience in colon cancer or metabolic disease research areas

• Experience developing and performing metabolic flux assays

• Experience in handling bacterial culture, tissue culture and mouse models preferred