

Postdoctoral Position at The Hormel Institute, University of Minnesota

We are looking for a highly motivated candidate specializing in Bioinformatics to join the Computational Cancer Genomics lab of Dr. Rendong Yang. The goal of this position will be to lead multiple research projects, develop novel computational algorithm(s), perform data analysis, collaborate with biologists and physicians, and present/publish the results in scientific conferences/journals. The main focus is to explore the functional consequences of somatic alterations in cancer patients, to identify driver alterations, and to understand the genetic mechanisms of cancer progression and drug resistance by integrating multi-dimensional data from large-scale cancer studies such as The Cancer Genome Atlas (TCGA).

Qualifications

A Ph.D. in Bioinformatics/Computational Biology/Computer Science/Statistics/Physics/Biology or a related field is required along with experience in Linux, proficiency in at least one programming languages (e.g. Python, R, Perl, Java, C/C++, Matlab) and experiences with high-throughput sequencing data (WGS, WES, RNA-Seq, ChIP-Seq) analysis. The candidate must demonstrate effective verbal and written communication skills.

About the Lab

Our laboratory is interested in the integrative analysis of large-scale, multi-dimensional genomic data to understand the initiation and progression of diseases. The research projects involve in the development of highly accurate and sensitive computational methods for analyzing large-scale genomic data, especially in the area of detecting and analyzing genetic variations and somatic mutations. Example projects span from technique-driven research that aims developing algorithms for a wide range of applications (e.g. Yang et al., *Bioinformatics* 2010; Yang et al., *BMC Genomics* 2014; Yang et al., *Genome Medicine* 2015), to hypothesis-driven investigation of specific biological problems where the main goal is the discovery and advancement of biological knowledge (e.g. Asangani et al., *Nature* 2014; Henzler et al., *Nature Communications* 2016; Katerndahl et al., *Nature Immunology* 2017).

About the Hormel Institute

The Hormel Institute, a biomedical research center of the University of Minnesota, was established in 1942 and has an excellent reputation and long history for producing world-class medical research. The Institute's research success has resulted in a second major expansion of its research facilities and includes an additional new state-of-the-art laboratory building that opened in January 2016. The Hormel Institute offers its research scientists complete access to state-of-the-art cutting edge equipment that includes a cryo-electron microscope (Titan Krios and Tecnai G2 Spirit Biotwin); FACS cell sorter; confocal microscopy; flow cytometry; protein crystallography robotics and defraction system; nano-HPLC-AB SCIEX triple TOF 5600 mass spectrometry; a Blue Gene/L and 3 racks of Linux GPU supercomputers for computational biology and bioinformatics; and spectrophotometers.

How To Apply

Send a cover letter, CV and list of references to Dr. Rendong Yang (yang4414@umn.edu)