Staff Associate/Senior Staff Associate-LCMS
Biomarkers Core Laboratory
Irving Institute for Clinical and Translational Research

Summary Description

Biomarkers Core Laboratory at the Irving Institute for Clinical and Translational Research is seeking a staff associate/senior staff associate with expertise in the field of untargeted metabolomics, mass spectrometry and related data processing and bioinformatics. This position will involve LC-HRMS and GC-HRMS profiling of endogenous and exogenous metabolites in support of precision medicine metabolomics. The ideal candidate will have a strong background in biological mass spectrometry with technical expertise in untargeted analysis and processing workflows for high-resolution mass spectrometry data sets.

Minimum Qualifications:

A minimum of 3 years of professional experience in high resolution mass spectrometry is required. Master's degree or higher is preferred.

Job Responsibilities:

- Establish and develop LC and GC-MS workflows for untargeted metabolomics
- Develop and customize sample preparation protocols for complex biological matrices
- Preparation and analysis of samples with both LC-HRMS and GC-HRMS Thermo Orbitrap analyzers.
- Develop and implement bioinformatic workflows for data extraction, feature identification and OMICS data analysis.
- Operate and maintain mass spectrometry instruments including the GC/LC Thermo Orbitrap MS platforms.
- Prepare data reports and standard operating procedure documentation.
- Interact with investigator clients to support sample management, study design and data interpretation.

Preferred qualifications:

- Hands-on expertise in operating, maintaining and troubleshooting Thermo Q-Exactive HFX LC/MS and GC hybrid quadrupole-Orbitrap.
- Experience in conducting large scale unbiased metabolomics studies (design, sample preparation, QC monitoring, data analysis and reporting)
- Expertise in various metabolite extraction techniques from biological tissues and other matrices.
- Demonstrated experience in applying bioinformatic and statistical software tools and suites to large untargeted metabolomics datasets.
- Experience in setting up well validated, targeted MRM based LCMS assays for small molecule analysis is desired
- Excellent communication and interpersonal skills
- Ability to maintain effective working relationships with supervisors, researchers, staff and other personnel.

The compensation is commensurate with experience. Please contract rm2374@cumc.columbia.edu for more information.