



Icahn
School of
Medicine at
Mount
Sinai

Postdoctoral Fellow in Mass Spectrometry and Exposomics

Employment Type: Full time, 1 year with the possibility to extend, start date of Spring 2020

The high-resolution exposomics section of the Senator Frank R. Lautenberg Environmental Health Sciences Laboratory in the Department of Environmental Medicine and Public Health at the Icahn School of Medicine at Mount Sinai seeks talented post-doctoral fellow applicants for positions that will involve untargeted profiling of endogenous and exogenous metabolites, nutrients and toxins in human tissues and other matrices. The position will provide assistance in LC-HRMS and GC-HRMS analysis in support of both research and service activities supporting precision medicine and exposome research. Projects include developing novel untargeted analysis techniques for various biological tissues and samples, development of samplers to assess exposures, establishing workflows for analyzing untargeted high-resolution mass spectrometry data and studies focused on environmental determinants of human disease. The facility currently houses one UHPLC-Orbitrap (Thermo Q-Exactive HFX) and one GC-Orbitrap (Thermo GC Q-Exactive), and has plans to strengthen its technology base further.

Responsibilities may include:

- Preparing and analyzing biological samples for analysis with LC-HRMS or GC-HRMS
- Development of methods for measuring exposure and disease biomarkers in human samples
- Perform sample analysis QA/QC
- Operating and maintaining GC or LC instrumentation
- Compound identification
- Performing OMICS data analysis.
- Bioinformatic workflows for data extraction, processing and annotation

Knowledge/Skills:

The ideal candidate for the postdoctoral fellow must have a PhD in metabolomics, analytical chemistry, biochemistry, mass spectrometry or other environmental health related field, previous experience with big data analysis or bioinformatics preferred. Candidates will have hands-on HRMS experience including untargeted data acquisition and analysis, and learn data processing workflows for untargeted mass spectrometry data. Experience with R or an equivalent programming language is strongly preferred. They must also have strong organizational and time management skills, with the ability to independently meet project timelines. While preference will be given to scientists with the expertise summarized above, we are willing to train exceptionally motivated individuals with strong analytical and communication skills.

Our laboratory is located on Central Park in New York City in the Icahn School of Medicine and is affiliated with the Mount Sinai Health System, the largest health care provider in New York. The Department of Environmental Medicine and Public Health has an NIEHS P30 core center with a pilot grant program to which fellows are eligible to apply and a formal mentoring and development program in conjunction with an NICHD-funded T32 training grant. The department also includes the new Institute for Exposomic Research, the first in the world focused on exposomics. The team

science approach in this department provides opportunities to co-author publications with leading collaborators. Fellows will be offered subsidized housing in Manhattan and a competitive stipend. Base salary is comparable to NIH stipend rate for each year of experience: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-131.html>. Work related experience will be considered in determining level and salary.

Application process:

Interested candidates should email a cover letter including a summary of research interests and experience, as well as their curriculum vitae, to Dr. Douglas Walker (douglas.walker@mssm.edu).