WHITEHEAD INSTITUTE for BIOMEDICAL RESEARCH

TITLE: Technical Assistant II/Technical Associate I
CLASSIFICATION: Exempt: Research Staff
REPORTS TO: Principal Investigator

The Metabolite Profiling Core Facility is seeking an enthusiastic and motivated individual who is interested in supporting metabolism-based research projects in a variety of experimental models through the use of liquid-chromatography mass-spectrometry.

Whitehead Institute for Biomedical Research is a leading, nonprofit research and educational institution that has defined the cutting edge of biomedical science, creating a legacy of research excellence and academic eminence since 1982. Wholly independent in its governance, finances and research programs, Whitehead shares a teaching affiliation with Massachusetts Institute of Technology (MIT), offering the intellectual, collegial and scientific benefits of a leading research university. Whitehead’s Faculty Members and Fellows run pioneering programs in cancer research, immunology, developmental biology, stem cell research, regenerative medicine, genetics and genomics—programs with a record of success.

We offer excellent benefits including a choice of health insurance options; a generous retirement plan; comprehensive dental, disability and life insurance coverage; competitive salary, substantial vacation and holiday time; and programs for tuition reimbursement, dependent care assistance, pre-tax spending accounts, and subsidized public transportation or parking.

OVERALL RESPONSIBILITY

Provides high-quality and professional support to our liquid-chromatography mass-spectrometry platform by analyzing metabolomics data. May supervise Technical Assistants in the design and performance of LCMS methods. Summarizes all experimental data to assist in determining which research methods best support the major scientific initiatives. Uses discretion to work independently under the guidance of Core Director in order to achieve group’s overall goals. Works as part of a team to ensure high-quality data in a state-of-the-art and fast-paced laboratory.

CHARACTERISTIC DUTIES

- Analyzes targeted and untargeted metabolomics data.
- In consultation with the Core Director, coordinates and oversees several varied experiments that support the overall goals of a research lab/group.
- Interprets and reports data for scientific use with the potential to contribute to scientific publications, consult scientific literature as needed.
- Monitors the progress and results of various experiments and projects, summarizes and reports. results to Core Director.
- Trains users on analysis software used by the Core.
- Assists the Core Director with analysis workflow development and update of SOPs.
- Maintains and curates in-house compound database and spectral library.
- Assists with LCMS method development for small molecule detection where needed.
• Contributes to problem solving, addresses complex technical problems and performs system suitability assessments.
• Assists the Core Director by participating in and leading sections in metabolomics workshops.
• May supervise Technical Assistants/entry-level personnel.
• Occasionally supports colleagues with sample preparation, and basic machine operation/maintenance.
• Helps implement any changes in protocols or methods, trains lab personnel on new methodologies.
• May interact with vendors to investigate novel supplies and technology.

QUALIFICATIONS
Required:
• Bachelor’s degree in biology or related field required or equivalent combination of education and experience. Must have 2 years of experience working full-time in a research laboratory. (Master's degree, at least one year of directly related, full time lab experience). Familiarity with basic metabolomics pipeline (including sample preparation, basic LC-MS operation, and data analysis).
• Experience analyzing high-resolution, accurate-mass spectrometry data.
• Excellent written and oral communication skills, strong organizational skills required.
• Knowledge of various spectral libraries (e.g METLIN/mzCloud).
• Must possess excellent interpersonal skills and the desire to work in a service-orientated environment.
• Flexibility and willingness to learn new technologies.

Preferred
• Experience with publishing or presenting experimental results highly desirable.
• Supervisory experience.
• Experience with Thermo’s LCMS data analysis software suite (Xcalibur/SII, Trace Finder, Compound Discoverer, Lipid Search).
• Experience in using R, Python or other programing languages to analyze data.
• Experience using Sirius or other AI software to identify unknown metabolites.

Interested candidates should submit a resume to resumes@wi.mit.edu
Or mail to:
Whitehead Institute, Attn: Human Resources
455 Main St.
Cambridge, MA 02142