

The American Society of Pharmacognosy

<https://www.pharmacognosy.us/job/computational-mass-spectrometry-postdoctoral-researcher/>

Computational Mass Spectrometry Postdoctoral Researcher

Description

To support the development of a platform to mine existing biological activity data, leverage microbial genomic sequence data to predict protein or secondary metabolic potential of microorganisms and to utilize these predictions to generate hypotheses for discovery campaigns. The candidate will work closely with lab and computational scientists in multiple functions in Biologics to develop novel computational pipelines for data analysis and workflows.

Responsibilities

The primary responsibilities of this role, Computational Mass Spectrometry Graduate Scholar, are to: Proactively identify and incorporate tools to integrate computational, structural, and functional genomics for the discovery, biosynthesis and characterization of genetically encoded small molecules from microbial sources; Support the development and application of tools to facilitate the structural elucidation of small molecules utilizing mass spectrometry and genomics; Leverage knowledge of natural product enzymes from validated biosynthetic pathways to predict chemical transformations encoded by gene clusters and match these to chemical products observed in the metabolome; Support the implementation of software to streamline data processing, data mining, and biomarker identification; Design and implement workflows for pathway analysis to inform discovery and fermentation optimization; Develop, improve, and deploy informatics pipelines to analyze and compare mass spectrometry-based metabolomics data.

Qualifications

Required Qualifications: Master of Science in field of expertise, with at least one year of relevant experience OR Ph.D. or equivalent experience in Bioinformatics, Programming, Metabolomics, Computational Biology, Chemical Biology or related disciplines with at least one year of experience;

Hiring organization

Bayer

Job Location

West Sacramento, CA

Date posted

October 26, 2021

Valid through

13.11.2021

Research experience in field of expertise; Broad understanding of scientific principles; Be able to conceptualize, design, and execute experiments that address research questions; Proficiency with experimental design, statistical analysis, and scientific instrumentation; Highly collaborative person with strong propensity for teamwork; Demonstrable expertise in working with metabolomics and/or genomic data; Strong background in natural products chemistry and biosynthesis; Be able to independently develop automated analysis pipelines from mass spectrometry data; Affinity with (microbial) metabolism and omics analyses; Have familiarity with untargeted metabolomics workflows and MS-based structure elucidation of secondary metabolites; Experience with modern data acquisition and analysis software; Proven proficiency in programming languages and platforms commonly used in Bioinformatics (Python, R, Matlab); A strong working knowledge of statistics and mathematical skills; Creative and flexible thinking; Strong communication skills to present scientific results clearly and concisely; Proficient in data recording, analysis, interpretation, and management.

Preferred Qualifications: Experience with machine learning and artificial intelligence; Wet-lab experience in natural products and mass spectrometry. This position may offer Visa Sponsorship assistance. This position may offer domestic relocation assistance.

Contacts

Website

- <https://jobs.bayer.com/job/West-Sacramento-Computer-Mass-Spectrometry-Graduate-Scholar-Cali/725189801/>

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