## Data Scientist – Lawrence Berkeley National Laboratory

**Hiring organization**
JGI-Lawrence Berkeley National Laboratory

**Employment Type**
Full-time

**Job Location**
Berkeley, CA

**Date posted**
April 5, 2021

**Description**

Joint Genome Institute Lawrence Berkeley National Lab's (LBNL, https://www.lbl.gov/) Joint Genome Institute (JGI, https://jgi.doe.gov/) Division has an opening for a Data Scientist to join the team. The Data Scientist will work in close partnerships across JGI to predict and validate secondary metabolite biosynthetic gene clusters that will allow us to refine our methods for biosynthetic pathway prediction and characterization. The successful candidate will also work with the Secondary Metabolites Group and with the Data Science & Informatics group (DSI) to develop and refine a new data portal for biosynthetic gene cluster analysis into a world-leading resource for the natural products' scientific community.

This is a full time 2 years, term appointment with the possibility of extension or conversion to Career appointment based upon satisfactory job performance, continuing availability of funds and ongoing operational needs.

This position may be subject to a background check. Any convictions will be evaluated to determine if they directly relate to the responsibilities and requirements of the position. Having a conviction history will not automatically disqualify an applicant from being considered for employment.

Remote Worker: This position will be remote initially, but limited to individuals residing in the United States tentatively until 2021 due to COVID-19. Once the Bay Area shelter-in-place restrictions are lifted, work will be primarily performed at Lawrence Berkeley National Lab, 1 Cyclotron Road, Berkeley, CA.

They say it's all about location and Berkeley Lab has it all: a view above the San Francisco Bay, cool breezes, and world-class multidisciplinary science within a diverse and respectful research ecosystem of 5,000 people. Nearly 90 years ago, Ernest Orlando Lawrence, the inventor of the cyclotron,

brought physicists, biologists, engineers and mathematicians together in Berkeley above the University of California campus to tackle the most urgent scientific challenges. Today, after garnering 13 Nobel Prizes, Berkeley Lab has sustained and grown that tradition of open, interdisciplinary team science, exemplified by how the U.S. Department of Energy Joint Genome Institute (JGI) addresses the most pressing energy and environmental challenges using integrative genome science approaches. JGI takes up residence in the new, state-of-the-art Integrative Genomics Building (IGB) along with the U.S. Department of Energy Systems Biology Knowledgebase (KBase) to expand the frontiers of energy and environmental science in partnership with the worldwide community of researchers. Will you join us and be a critical part of our next ground-breaking discoveries?

Berkeley Lab (LBNL, https://www.lbl.gov/) addresses the world's most urgent scientific challenges by advancing sustainable energy, protecting human health, creating new materials, and revealing the origin and fate of the universe. Founded in 1931, Berkeley Lab's scientific expertise has been recognized with 13 Nobel prizes. The University of California manages Berkeley Lab for the U.S. Department of Energy's Office of Science. Working at Berkeley Lab has many rewards including a competitive compensation program, excellent health and welfare programs, a retirement program that is second to none, and outstanding development opportunities.

To view information about the many rewards that are offered at Berkeley Lab- Click Here (https://hr.lbl.gov/).Equal Employment Opportunity: Berkeley Lab is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, or protected veteran status. Berkeley Lab is in compliance with the Pay Transparency Nondiscrimination Provision under 41 CFR 60-1.4. Click here (https://www.dol.gov/agencies/ofccp/posters) to view the poster and supplement: "Equal Employment Opportunity is the Law. Lawrence Berkeley National Laboratory encourages applications from women, minorities, veterans, and other underrepresented groups presently considering scientific

research careers.

**Responsibilities**

• Design, lead and conduct computational approaches for investigating the biosynthesis of novel secondary metabolites.

• Develop optimized workflows for large-scale computational prediction of biosynthetic gene clusters from a variety of inputs – draft and isolate genomes, metagenomes, from a variety of potential hosts (bacteria, plant, fungi).

• Participate in and help guide development of a new community-focused secondary metabolism data portal. Develop software for its data access and visualization and communicate with the data portal's scientific user community.

• Develop and deploy advanced algorithms and benchmark existing algorithms. Deploy software and tools across multiple computing venues, including JGI's internal computing systems, National Energy Research Scientific Computing (NERSC), Lawrence Berkeley National Lab (LBNL), and the cloud.

• Prepare results for publication and make presentations at seminars and scientific meetings. Contribute to scientific research papers and reports.

• Establish effective and productive collaborations with leading secondary metabolite researchers.

• Independently provide creative problem solving and work within a larger group of analysts/scientists to address and resolve challenges, questions, or issues.

Additional responsibilities as needed: Lead, mentor and train graduate students, technical staff, and other group members, as necessary.

**Qualifications**

• A minimum of 5 years of related experience with a Bachelor's degree; or 3 years and a Masters' degree; or equivalent experience.

• Demonstrated experience and expertise in sequencing and functional genomic annotation.

• Demonstrated expertise in bioinformatics software usage and/or development to support molecular and synthetic biology efforts.

• Demonstrated experience working in Unix, Python or other scripting languages, HTML, version control and continuous integration tools, containers, databases, open software and open science principles, and the capability to learn and adapt to new technologies.

• Experience with advanced data analysis, including integrating data from multiple OMICS technologies for visualization and statistical analysis.• Experience in preparing information for publications, presentations, seminars, and scientific meetings.

Desired Qualifications:

• Ph.D. in biochemistry, chemistry, computational biology, microbiology, or related field.

• Postdoctoral experience in the discovery, analysis, annotation, and prediction of chemical products of biosynthetic gene clusters, especially with large, public data sources.

• Demonstrated ability to conduct and perform individual and collaborative research and effectively interact with a broad/diverse range of colleagues with tact and diplomacy.

• Ability to design and oversee projects resulting from genomic analyses.

• Effective problem-solving, decision-making, organizational and analytical skills.

• Demonstrated ability to work independently and assist with the preparation of research data, trends, and information for presentations within the principal investigator's lab.

• Knowledge of secondary metabolism biosynthesis.

• Expertise programming in Python, bash, and/or other scripting languages

**Contacts**

Apply directly online http://50.73.55.13/counter.php?id=195248 and follow the on-line instructions to complete the application process. Learn About Us: JGI & Berkeley Lab: A View to Fuel Innovative Science in the Public Interest