



Postdoctoral Fellow (Plant-Microbial Interactions Group)

Berkeley Lab's Joint Genome Institute (JGI) is looking for a talented Postdoctoral Fellow to perform research on plant microbe interactions with an emphasis on the computational identification and comparison of phages directly influencing root colonization potential. As part of the Plant-Microbial Interactions Group and in close collaboration with the Viral Genomics Group, the selected candidate will leverage substantial pre-existing expertise, tools, and resources for the computational identification and characterization of environmental viruses. The resulting datasets of plant-associated bacteriophages will assist in the accurate identification and experimental validation of potential candidates that may enhance root colonization capabilities and confer growth-promoting benefits to the host plant.

Select specific responsibilities:

- Conduct comprehensive surveys using computational detection and curation strategies to identify prophages in a wide range of plant-associated proteobacterial genera
- Use technologies such as VirSorter2, CheckV and DRAMv necessary to conduct viral detection, screening and manual curation
- Collaborate with the Viral Genomics Group to develop machine learning approaches to build technologies for the fast and accurate identification of select categories of mobile genetic elements
- Partner with wet-bench biologists in the Plant-Microbial Interactions Group to support study design and data analysis of experimental exploration of phages in plant root colonization

Qualifications:

- A recent Ph.D. in Life sciences or a related field
- A strong background in bioinformatic tools and computational analysis
- Proficiency with Python, R, or others in the Unix environment
- Experience with the execution of command-line scripts
- Experience using viral detection, screening, and curation tools
- Strong oral and written communication skills including the ability to efficiently organize technical information for publication and presentation
- Effective interpersonal skills including the ability to interact with diverse technical and scientific staff within a collaborative interdisciplinary team environment

This is a 2-year postdoc position. Informal inquiries regarding this position should be directed to Jonelle Basso: JBasso@lbl.gov.

To apply and view a full position description, please visit the job posting and follow the online instructions to complete the application process.

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