Stanford



Louis Berrios

Postdoctoral Scholar, Biology

Bio

BIO

Louis joined the Peay lab in 2021 after completing his Ph.D. at the University of South Carolina with Dr. Bert Ely. His research primarily focuses on the factors that govern the spatial distributions of bacteria and fungi as a function of microbe-microbe and plant-microbe interactions. From genomes to phenomes, Louis fuses both top-down and bottom-up experimental approaches to determine the genetic architecture that undergirds plant microbiome assemblages across landscapes.

STANFORD ADVISORS

• Kabir Peay, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

• Examining the genomic features of human and plant-associated Burkholderia strains. Archives of microbiology

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• Linking Reactive Oxygen Species (ROS) to Abiotic and Biotic Feedbacks in Plant Microbiomes: The Dose Makes the Poison. International journal of molecular sciences Berrios, L., Rentsch, J. D.

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- The genus Caulobacter and its role in plant microbiomes. World journal of microbiology & biotechnology Berrios, L.
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- S2B, a Temperate Bacteriophage That Infects Caulobacter Crescentus Strain CB15. Current microbiology Ely, B., Berrios, L., Thomas, Q. 2022; 79 (4): 98
- Plant-growth-promoting Caulobacter strains isolated from distinct plant hosts share conserved genetic factors involved in beneficial plant-bacteria interactions. Archives of microbiology

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Complete Genome Sequence of the Plant-Growth-Promoting Bacterium Caulobacter segnis CBR1 CURRENT MICROBIOLOGY

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• Genes related to redox and cell curvature facilitate interactions between Caulobacter strains and Arabidopsis *PLOS ONE* Berrios, L., Ely, B.

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- NovelCaulobacterbacteriophages illustrate the diversity of the podovirus genusRauchvirus ARCHIVES OF VIROLOGY Ely, B., Liese, J., Corley, S., Nguyen, D., Wilson, K., Berrios, L. 2020; 165 (11): 2549-2554
- Plant growth enhancement is not a conserved feature in the Caulobacter genus *PLANT AND SOIL* Berrios, L., Ely, B.

2020; 449 (1-2): 81-95

• The Isolation and Characterization of Kronos, a Novel Caulobacter Rhizosphere Phage that is Similar to Lambdoid Phages CURRENT MICROBIOLOGY Berrios, L., Ely, B.

2019; 76 (5): 558-565

• Achieving Accurate Sequence and Annotation Data for Caulobacter vibrioides CB13 CURRENT MICROBIOLOGY

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