

Speaker: Alex Monell, University of California, San Diego

Talk Title: Spatial Transcriptomics in Plants - Computational Methods for Data Analysis

Abstract: Spatial transcriptomics has become increasingly accessible to researchers due to commercialization and adoption of the technology by research centers. While the barriers for data generation have progressively decreased, data analysis is still a major obstacle for many researchers. This talk explores several steps of the data analysis process, with recommendations about which tools best perform essential data processing and downstream analysis tasks. It dives into specific use cases of these tools on spatial transcriptomics data obtained from pathogen-infected *Arabidopsis thaliana* leaves. Some topics covered include cell segmentation, scRNA-seq integration with spatial transcriptomics, and spatial differential expression with respect to morphological landmarks or unique parts of the tissue.