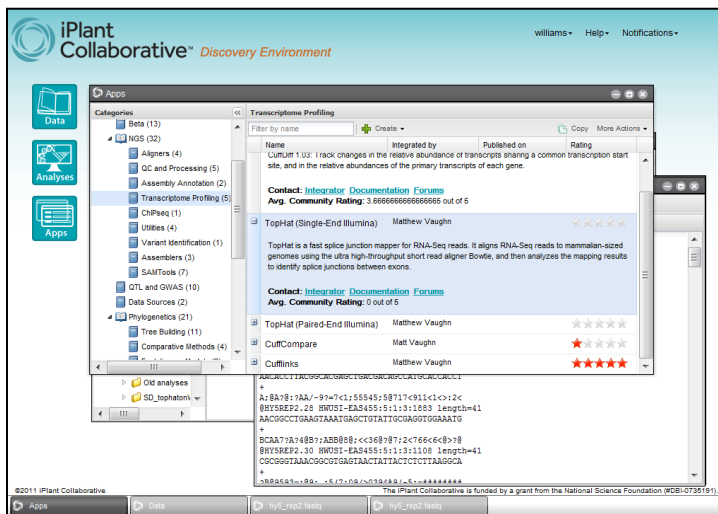


Free Workshop iPlant Computational Tools & Services

To Solve Problems in Plant Science Research

University of Missouri, Columbia
Life Sciences Center, Rm 171
September 24-25, 2012, 8:30 AM – 5 PM daily

Biological research depends increasingly on computational analysis of large and complex data sets. This two-day workshop provides a comprehensive look at tools and services for large-scale data analysis provided by the *iPlant Collaborative*, a major computer infrastructure project of the National Science Foundation (www.iplantcollaborative.org). Workshop topics build progressively to cater to the needs of general and advanced audiences. Computational thinking is applied to two “large-data” challenges in plant biology: analyzing high-throughput genotype and constructing large phylogenetic trees.



Day 1: Participants are introduced to *iPlant's* tools to manage, analyze, and share data – then apply them to structured use cases on analyzing differential gene expression in an RNA-seq dataset, and creating workflows for phylogenetics. *Discovery Environment* is a customizable workspace for a variety of applications. *Data Store* offers free, secure storage that co-localizes user data with *iPlant* analysis tools. *Atmosphere* is a personal, computing cloud in which to run analyses and share projects. Learn to integrate tools to further customize workflows.

Day 2: Participants transition to advanced work on challenging informatics problems. Use advanced workflows to analyze protein-binding sites in a CHIP-seq dataset and to merge trait and phylogenetic data for continuous ancestral character estimation (CACE). Work from the command line to increase flexibility. Consult with experts on specific analysis and support problems – such as implementing the *Data Store* for your data, interacting with the *iPlant* API, and using supercomputing resources (XSEDE) for bioinformatics.

Space is limited to 24 participants, on a “first-register, first-served basis”. Those who register after the workshop is full will be waitlisted.

To register go to: http://www.iplantcollaborative.org/forms/register-TSW_UMO