**PlantSEED Workshop**

**Location:** Northwestern University, Evanston, IL

**Date:** 4-5 August, 2016

Presentations

Hands-on

**Day 1:** **Annotation and modeling of plant genomes in PlantSEED**

Session A: Overview (9am):

1. Introductions and general overview

(30 minutes)

1. Introduction to ModelSEED/PlantSEED website

(15-30 minutes)

Coffee Break (10am)

Session B: Annotation (10:30am):

1. Tour of PlantSEED Subsystems, Protein Families, and K-mers

(40 minutes)

1. Explore and edit annotation in reference/user genomes

(50 minutes)

Lunch (Group Photo; 12pm)

Session C: Metabolic Reconstruction and Flux Balance Analysis (1pm):

1. Overview of metabolic reconstruction, modeling, and simulation

(45 minutes)

1. Exploration and simulation of metabolic reconstructions

(45 minutes)

Break (2:30pm)

Session D: Hands on with Plastidial Sandbox Model

1. Overview of sandbox model

(30 minutes)

1. Exploration, editing, and simulation of sandbox model

(60 minutes)

Finish (4pm)

**Day 2: Application of models to understand and discover plant biology**

Session E: Overview and Q&A (9am):

1. Re-visit Annotation/Reconstruction process, answer questions, debug

(30 minutes)

1. Participation goals

(30 minutes)

Coffee Break (10am)

Session F: DOE RNA-Seq pipeline (Sunita Kumari; 10:30am)

1. Explanation of KBase Narrative, and RNA-Seq pipeline

(90 minutes)

Lunch (12pm)

Session G: Transcriptomics FBA (1pm):

1. Explanation of Integrating Transcriptomics with FBA

(45 minutes)

1. Uploading, Running and Exploring tFBA results

(45 minutes)

Break (2:30pm)

Session H: Future of PlantSEED (3pm):

1. Future plans

(30 minutes)

1. Q&A

(30 minutes)

Finish (4:00pm)