

## Principal Investigator (PI) Meeting, Feb. 22-24, 2021

### Speakers

Name	Organization	Topic
Jeffrey Cameron	University of Colorado Boulder	Quantum Enabled Bioimaging Science Research Projects at the DOE Laboratories
Jeffrey Cameron	University of Colorado Boulder	Spatiotemporal Dynamics of Photosynthetic Metabolism in Single-Cells at Sub-Cellular Resolution
Wellington Muchero	ORNL	Deploying Computationally Predicted Genomic targets to engineering bioenergy traits in Populus, rice and switchgrass
Jessy Labbe	ORNL	Insights on the impact of a mycorrhizal-bacterium assembled community on the phenotypic responses of Populus
Priya Ranjan	ORNL	Framework for modeling plant genotype to phenotype relationships in Kbase
Dan Jacobson	ORNL	Embracing Complexity: Progress on Exa- and Peta-scale Networks for Arabidopsis in Kbase
Neal Stewart	University of Tennessee	Rational Design and Testing of Abiotic Stress Inducible Synthetic Promoters from Poplar Cis-regulatory Elements
Carrie Eckert	NREL/University of Colorado Boulder	Understanding and Engineering Regulatory Networks to Improve Microbial Bioproduction Systems

# 2021 DOE Genomic Sciences Program Annual Principal Investigator (PI) Meeting (cont'd)

## CBI Posters

Name	Organization	Position	Topic
Bennett Addison	NREL	Researcher	Modeling and NMR Methods to Probe Spatial Arrangements in Biomolecules: Towards predictive models of plant cell wall structure
Bochra Bahri	University of Georgia	Researcher	Effects of <i>Claviceps</i> spp./ <i>Epicoccum andropogonis</i> inoculation on switchgrass phenotypic traits
Andrew W. Bartling	NREL	Researcher	Techno-Economic Analysis and Life Cycle Assessment of a Biorefinery Utilizing Reductive Catalytic Fractionation (RCF)
Alissa Bleem	NREL	Post Doc	Engineering a Cytochrome P450 System for Oxidative Demethylation of Lignin-Related Aromatics
Melanie M Callaghan	University of Wisconsin-Madison	Researcher	Thermodynamic analysis of <i>C. thermocellum</i> glycolysis using deuterated water (2H <sub>2</sub> O) during high substrate loading fermentations
Stephen DiFazio	West Virginia University	Researcher	High Resolution Analysis of Recombination Rates in <i>Populus trichocarpa</i>
Jacob Fenster	University of Colorado, Boulder	Student	Dynamic Control of Aromatic Catabolism, In Situ Efflux Pump Engineering, and HighThroughput Functional Genomics in <i>P. putida</i> KT2440 via CRISPR-
John L. Field	Colorado State University	Researcher	Simulating landscape-scale impacts of switchgrass nitrogen use efficiency
Sanchari Ghosh	Dartmouth College	Post Doc	Disc Milling of Fermented Corn Stover to Increase its Accessibility to Fermentation by <i>Clostridium thermocellum</i>
Nina Gu	NREL	Post Doc	Exploring Catalytic Conditions for C–C Bond Cleavage of Lignin-Based Compounds
Mitra Mazarei	University of Tennessee	Researcher	Field experiments of switchgrass GWAS population for increased sustainability: nitrogen-use efficiency and rust disease resistance
Jonathon Romero	ORNL	Student	Using Iterative Random Forests to Predict the Progeny of Crosses in <i>Populus trichocarpa</i>
Debolina Sarkar	Pennsylvania State University	Student	Identifying growth-coupled genetic loci using integrated metabolic modeling in <i>Populus</i>
Michael L. Stone	Massachusetts Institute of Technology	Post Doc	Continuous hydrodeoxygenation (HDO) of neat poplar lignin oil to jet-range aromatic hydrocarbons with molybdenum carbide (Mo <sub>2</sub> C)
Jared Streich	ORNL	Post Doc	A Rapid Semi-Automated Phenotyping System to Capture the Highly Useful Diameter at Breast Height in <i>Populus trichocarpa</i> in the Field
Hyeongmin Seo	University of Tennessee	Researcher	Systems Metabolic Engineering of <i>Clostridium thermocellum</i> for Direct Conversion of Cellulosic Biomass to Designer C4-derived Esters
Hsin-Tzu Wang	University of Georgia	Grad Student	Engineering Plant Cell Wall Polysaccharide O-Acetyltransferases with Altered Specificity
Yongqin Wang	Noble Research Institute	Post Doc	Genome-wide association studies of drought stress and water use efficiency related traits in switchgrass
Marvin Wright	West Virginia University	Grad Student	Physiological responses of <i>Populus trichocarpa</i> genotypes to drought
Guoliang Yuan	ORNL	Post Doc	Application of Base Editing Technology in Poplar