

# Agenda

## June 5 - 8, 2017

HUDSONALPHA INSTITUTE FOR BIOTECHNOLOGY • HUNTSVILLE, AL USA

### Day One: Monday, June 5, 2017

03:30 PM-05:30 PM	Jackson Center	Phytozome Workshop
05:30 PM-07:00 PM	HudsonAlpha	Opening Reception
07:00 PM-07:15 PM	Jackson Center	Welcome and Introductions
07:15 PM-08:00 PM	Jackson Center	<b>Keynote: Michael Purugganan, New York University, NY USA</b> <i>"The evolution and genomics of orphan crops: From African rice to date palms"</i>
08:00 PM-09:00 PM	Jackson Center	Dessert Reception
09:30 PM	Jackson Center	Last shuttle leaves from the Jackson Center

### Day Two: Tuesday, June 6, 2017

07:30 AM-08:30 AM	HudsonAlpha	Breakfast Buffet
08:30 AM-08:40 PM	HudsonAlpha	Welcome
08:40 AM-10:30 AM	Jackson Center	<b>Session 1: Challenges in Identifying Agronomical Useful Alleles using Large-Scale Genomics and Phenotyping (Part 1)</b>
<b>Mathilde Causse, National Institute for Agricultural Research (INRA), France</b> <i>"Genetic diversity and architecture of gene expression in response to water deficit in tomato"</i>		
<b>Jianming Yu, Iowa State University, IA USA</b> <i>"Design and Optimize Genomic Selection in the Context of Gene Banks and Practical Breeding Programs"</i>		
<b>Nathan Springer, University of Minnesota, MN USA</b> <i>"Environmental limitations to understanding useful alleles"</i>		
<b>Todd Mockler, Donald Danforth Plant Science Center, MO USA</b> <i>"TERRA-REF and Beyond: A new era of sorghum genomics and phenomics"</i>		
10:30 AM-11:00 AM	HudsonAlpha/ Jackson Center	Exhibits, Break and Poster Talks
11:00 AM-12:00 AM	Jackson Center	<b>Session 2: Understanding Biotic and Abiotic Stress</b>
<b>John McKay, Colorado State University, CO USA</b> <i>"Genetics of Adaptation to Climate in Plants"</i>		
<b>Amy Lawton-Rauh, Clemson University, SC USA</b> <i>"Insights on biotic and abiotic stress resilience from crop wild relatives and weedy species"</i>		
12:00 PM-01:00 PM	Jackson Center	Luncheon
01:00 PM-01:45 PM	Jackson Center	<b>Poster Speakers</b>
<b>Hamid Razifard, University of Massachusetts, MA USA</b> <i>"Domestication history of the cultivated tomato reveals potential for gene discovery"</i>		
<b>Maria Munoz-Amatriain, University of California Riverside, CA USA</b> <i>"The reference genome sequence of cowpea"</i>		
<b>Tingting Guo, Iowa State University, IA USA</b> <i>"Data mining and design concept to streamline prediction-guided breeding"</i>		

## Day Two: Tuesday, June 6, 2017 *(continued)*

<b>01:45 PM-03:00 PM</b>	Jackson Center	<b>Session 3: Applying Genomics to Minor Crops</b>
<b>Steven Knapp, University of California, CA USA</b> <i>"Cracking the Octoploid Code: Leveraging Genomics to Tackle Long-Standing Challenges in Strawberry Breeding"</i>		
<b>Robin Buell, Michigan State University, MI USA</b> <i>"Genome Biology in Wild and Cultivated Potato"</i>		
<b>David Bertoli, University of Georgia, GA USA</b> <i>"Genetic behavior and genome diversity in Arachis hypogaea"</i>		
<b>03:00 PM-04:00 PM</b>	HudsonAlpha/ Jackson Center	Exhibits, Break and Poster Talks
<b>03:10 PM-03:40 PM</b>	HudsonAlpha	Optional Tour of HudsonAlpha Facilities
<b>04:00 PM-05:15 PM</b>	Jackson Center	<b>Session 4: Challenges in Identifying Agronomical Useful Alleles using Large-Scale Genomics and Phenotyping (Part 2)</b>
<b>Malia Gehan, Donald Danforth Plant Science Center, MO USA</b> <i>"Low-Cost High-Throughput Phenotyping to Quantify Natural Variation in Chenopodium quinoa"</i>		
<b>Mitch Tuinstra, Purdue University, IN USA</b> <i>"High Throughput Phenotyping of Crop Plants in Field Trials Using RGB, LiDar, and Hyperspectral Imaging"</i>		
<b>Stephen Kresovich, Clemson University, SC USA</b> <i>"The Value of Rediscovering Heirlooms for Future Crop Improvement and Agriculture"</i>		
<b>05:15 PM</b>	Jackson Center	Shuttles to the U.S. Space & Rocket Center
<b>05:30 PM-06:30 PM</b>	U.S. Space & Rocket Center	Reception in the Davidson Center
<b>06:30 PM-07:00 PM</b>	U.S. Space & Rocket Center	Buffet Dinner in the Davidson Center
<b>07:00 PM-07:10 PM</b>	U.S. Space & Rocket Center	Welcome and Introductions
<b>07:10 PM-07:55 PM</b>	U.S. Space & Rocket Center	<b>Keynote: Edward Buckler, United States Department of Agriculture, NY USA</b> <i>"How should we sustainably feed a planet? What can genetics and breeding contribute?"</i>
<b>07:55 PM-08:00 PM</b>	U.S. Space & Rocket Center	Closing Remarks
<b>08:30 PM</b>	U.S. Space & Rocket Center	Last shuttle leaves from the Space & Rocket Center

## Day Three: Wednesday, June 7, 2017

<b>07:30 AM-08:30 AM</b>	HudsonAlpha	Breakfast Buffet
<b>08:30 AM-10:00 AM</b>	Jackson Center	<b>Session 5: Translational Research in Breeding Applications (Part 1)</b>
<b>Michael Gore, Cornell University, NY USA</b> <i>"Improving Food and Nutritional Security for the Global South: The Genetic Improvement of Maize with Smallholder Farmers"</i>		
<b>William Beavis, Iowa State University, IA USA</b> <i>"Operations Research for Genetic Improvement"</i>		
<b>Mechthild Tegeder, Washington State University, WA USA</b> <i>"Important functions of organic nitrogen transporters in plant performance"</i>		

## Day Three: Wednesday, June 7, 2017 *(continued)*

<b>10:00 AM-10:30 AM</b>	HudsonAlpha/ Jackson Center	Exhibits, Break and Poster Talks
<b>10:30 AM-12:00 PM</b>	Jackson Center	<b>Session 6: Translational Research in Breeding Applications (Part 2)</b>
<b>Antonio Costa de Oliveira, Universidade Federal de Pelotas, Brazil</b> <i>"Functional analyses of stress related genes in rice: towards the development of stress resilient rice - SRR"</i>		
<b>Anna Koltunow, Commonwealth Scientific and Industrial Research Organization (CSIRO), Australia</b> <i>"Capturing Heterosis: developing self-reproducing hybrid sorghum and cowpea crops to save and grow hybrid seed"</i>		
<b>Alexander Bucksch, University of Georgia, GA USA</b> <i>"Computational advances towards a new characterization of root phenotypes under field conditions"</i>		
<b>12:00 PM-01:00 PM</b>	Jackson Center	Luncheon
<b>01:00 PM-01:45 PM</b>	Jackson Center	<b>Poster Speakers</b>
<b>Amanda M. Hulse-Kemp, USDA-ARS, NC USA</b> <i>"Setting the Stage for California Coffee Farming"</i>		
<b>Jared Westbrook, The American Chestnut Foundation, NC USA</b> <i>"Accelerating restoration of the American Chestnut with Genomics"</i>		
<b>Barbara Muller, University of Brasilia / EMBRAPA, Brasilia-DF, Brazil</b> <i>"Genome-wide association analyses of growth traits using 3,417 trees across four Eucalyptus breeding populations"</i>		
<b>01:45 PM-03:00 PM</b>	Jackson Center	<b>Session 7: Targeted Modifications Toward Crop Improvement</b>
<b>Zachary Lippman, Cold Spring Harbor Laboratory, NY USA</b> <i>"Exploiting mechanisms of flowering and flower production to improve crop productivity"</i>		
<b>William Gordon-Kamm, DuPont Pioneer, IA USA</b> <i>"Developing a simple, rapid transformation method for our major cereals crops"</i>		
<b>Yinong Yang, Pennsylvania State University, PA USA</b> <i>"CRISPR/Cas-enabled multiplex genome editing for functional genomics and precision breeding"</i>		
<b>03:00 PM-04:00 PM</b>	HudsonAlpha	Dedicated Poster Time, Exhibits and Break
<b>03:10 PM-03:40 PM</b>	HudsonAlpha	Optional Tour of HudsonAlpha Facilities
<b>04:00 PM-05:00 PM</b>	Jackson Center	<b>Session 8: Developing World Crops</b>
<b>Daniel Fonceka, CERAAS, Senegal</b> <i>"Moving Favorable Alleles from Peanut Wild Species to cultivated species using Genomic Tools"</i>		
<b>Phillip McClean, North Dakota State University, ND USA</b> <i>"Targeted Improvement of the Mayan Milpa Cropping System in Guatemala"</i>		
<b>05:00 PM-07:30 PM</b>	Jackson Center Lawn	Hops on the Helix Social
<b>08:00 PM</b>	Jackson Center	Last shuttle leaves from the Jackson Center

## Day Four: Thursday, June 8, 2017

<b>07:30 AM-08:30 AM</b>	HudsonAlpha	Breakfast Buffet
<b>08:30 AM-11:00 AM</b>	HudsonAlpha	<b>Roundtable: Genomics Toward Developing World Crops</b>
<b>Moderator, David Hoisinton, University of Georgia, GA USA</b>		
<b>12:00 PM</b>	HudsonAlpha	Last shuttle leaves from HudsonAlpha