Molecular Plant Sciences Graduate Program
Spring 2021 Seminar Series (MPS 515)
Wednesdays at 12:10pm via Zoom, unless otherwise noted

Date	Location	Speaker	Seminar Title	Title & Affiliation
Jan. 20	Zoom	Ron Mittler	"Plasmodesmata, reactive oxygen species and a trio of calcium channels orchestrate rapid systemic signaling in plants"	The Division of Plant Sciences, College of Agriculture, Food and Natural Resources, and the Department of Surgery, University of Missouri - Columbia
Jan. 27	Zoom	MPS GSO	Student Meeting	
Feb. 3	Zoom			
Feb. 10	Zoom	Shaun Clare	"The power of pangenomics in gene validation"	MPS Graduate Student, Department of Crop and Soil Sciences, WSU
Feb. 17				
Feb. 24	Zoom	Kathleen Hickey	"Adaptions Mechanism to Drought Stress in Spring Wheat"	MPS PhD Candidate, Institute of Biological Chemistry, WSU
Mar. 3				
Mar. 10	Zoom	Skylar Johnson	"Flavins and Flowering Times"	MPS PhD Candidate, Institute of Biological Chemistry, WSU
Mar. 17	No Seminar	Academic Break		
Mar. 24	Zoom	Brittney Moss	"How can yeast help us understand the development of corn ears?"	Assistant Professor, Department of Biology and Program in Biochemistry, Biophysics, and Molecular Biology, Whitman College
Mar. 31	Zoom	Vishnutej Ellur	"Investigating the roles of chickpeas polygalacturonase inhibiting proteins (PGIPs) against fungal pathogens"	MPS PhD Candidate, Department of Plant Pathology, WSU
Apr. 7	Zoom	Natalia Dudareva	"Plant Volatiles: From Emission to Perception"	Distinguished Professor, Department of Biochemistry, Purdue University
Apr. 14	Zoom	Chun-Yeung Ng	"The interaction between rice Pho1 and PsaC: the potential impact on photosystem 1 by L80, a peptide unique to plant phosphorylase"	MPS Graduate Student, Institute of Biological Chemistry, WSU
Apr. 21				
Apr. 28	Zoom	Matthew McGowan	"Chromosomal Characteristics of Salt Stress Heritable Gene Expression in the Rice Genome"	MPS PhD Candidate, Department of Crop and Soil Sciences, WSU

Ron Mittler information:

Abstract: Plants grow and reproduce within a highly dynamic environment that can see abrupt changes in conditions, such as light intensity, temperature, or humidity. Recent studies revealed that plants can respond within seconds to some of these conditions, engaging many different metabolic and molecular networks, as well as rapidly altering their stomatal aperture. Some of these rapid responses were further shown to propagate throughout the entire plant via waves of reactive oxygen species (ROS) and Ca^{2+} that are mediated through the plant vascular system. New findings reveal that plasmodesmata and ROS play a key role in regulating these signals.

Biosketch: Dr. Mittler received his PhD from Rutgers University in 1993, and is currently a tenured Professor at the University of Missouri. His research is focused on the role reactive oxygen species (ROS) play in the response of plants to different abiotic conditions, on how different abiotic stresses interact during stress combination in plants, and on how iron and ROS drive cellular proliferation of cancer cells. Recently, he begun using new imaging tools to detect ROS in live whole plants and is currently using these tools to study the “ROS wave”, a cell-to-cell signaling process that mediates systemic signaling in plants.