NSF NANOSCALE SCIENCE AND ENGINEERING GRANTEES CONFERENCE: NANOBIOLOGY DECEMBER 7-8, 2023

Dr. Tessa M. Burch-Smith

Associate member and Principal Investigator Donald Danforth Plant Science Center



Bio: I am scientist at the Donald Danforth Plant Science Center in St. Louis, Missouri. My research focuses on intercellular communication in plants, particularly on nanostructures called plasmodesmata that allow movement of molecules between walled plant cells. I use diverse molecular and cell biological approaches including advanced light and electron microscopy and plant viruses to address questions related to plasmodesmal structure during development and pathogen infection. My lab also investigates chloroplast gene expression and retrograde signaling to control nuclear gene expression. Research in my lab has been funded by the National Science Foundation, the United States Department of Agriculture (USDA), and the Defense Advanced Research Projects Agency (DARPA).