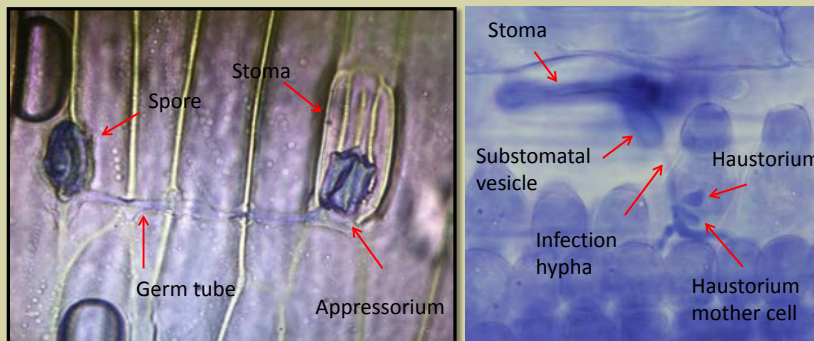


Course Focus
PSPP 555/AGSC 455 - Li Huang



Do you want to know what makes microbes become plant pathogens? How do pathogens invade plant hosts and obtain nutrients? How do plants respond to their enemies? A new course co-listed as PSPP555/AGSC455 "Molecular Plant-Pathogen & Pest Interactions" will be offered in the spring of 2014 for graduate students and senior level undergraduate students.

The new course will teach students the molecular mechanisms by which plants and pathogens/insects interact during the progression of pathogenesis or resistance, the understandings of how plants recognize relatively conserved microbial patterns to activate defenses, the methods used to study and visualize intracellular interactions during pathogenesis and defense. Current information and hypotheses using different host/pathogen or host/pest interactions as examples will be presented. Interactions between plant hosts and pathogens & pests will be illustrated from physiology, biochemistry, molecular biology, and molecular genetics points of views.



Left: A rust spore landed on wheat leaf surface, formed a germ tube toward a stoma, produced an appressorium and penetrated through the stoma opening.

Right: After penetration, the fungus produces a substomatal vesicle, then infection hypha. Haustorium mother cell is differentiated after the infection hypha encounters a mesophyll cell; a haustorium is formed inside the mesophyll where the fungus gets nutrients.

Photo courtesy of Mina Talajoor.