

Felton – Keynote Speaker

The role of microbes in mediating plant-insect interactions – Benefit or betrayal?

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All plant-herbivore interactions occur in a microbial context. Herbivore-associated microbes may benefit herbivores through supplementing herbivore nutrition, assisting in digestion, aiding in detoxification of plant defenses, and/or priming their immune systems. One aspect of microbial mediation of plant-herbivore interactions that has been overlooked is the ability of microbes to alter the perception of herbivores by their host plants. Plants recognize herbivore feeding cues found in their saliva and oral secretions and use these cues to mount defensive responses against herbivores. We will present evidence that an array of microbes associated with herbivores (bacteria, fungi, baculoviruses, and polydnviruses) can alter the recognition of these cues in ways that may benefit or betray the herbivore. Ultimately these microbes mediate both herbivore and plant immunity