



**UNIVERSITY OF
GEORGIA**

College of Agricultural and Environmental Sciences
Department of Plant Pathology

33rd E. S. Luttrell Lecture

Tuesday, 23 May 2023

Dr. Hailing Jin

Professor and Cy Mouradick Endowed Chair, Department of Microbiology & Plant Pathology
University of California – Riverside

Cross-Kingdom RNA Trafficking Between Plants and Fungal Pathogens

Dr. Hailing Jin's lab studies RNA biology and epigenetics in plant microbial interaction, aiming to elucidate the regulatory mechanisms of plant immunity and pathogen virulence. Her lab discovered bidirectional cross-kingdom RNAi between plants and fungal pathogens. They have demonstrated that extracellular vesicles play an essential role in RNA trafficking between plants and interacting pathogens. Furthermore, her lab discovered that many fungal pathogens can take up RNAs from the environment, and shows that topical application of small RNAs or double-stranded RNAs that target fungal virulence-related genes on various plants can suppress fungal diseases. Different nanotechnologies have been used to formulate long-lasting and effective RNA-based new generation of fungicides that are durable and eco-friendly. The ultimate goal of Jin's lab is to develop effective and environmentally friendly strategies to control crop diseases and to ensure sufficient food production.



Reception: 10:00 - 10:30 AM, Coverdell Atrium Rotunda

Lecture: 10:30 - 11:30 AM, Coverdell 175

In-person participation encouraged; Zoom link for seminar available upon request
(please contact sophie.usher@uga.edu)