



Lirong Zeng, PhD, Molecular Plant Pathologist, P3 New Faculty Hire, UALR

Lirong Zeng, PhD, molecular plant pathologist, is the new P3 faculty hire at UALR. He obtained his bachelor's degree in agronomy from Hunan Agricultural University, China; his master's degree in biochemistry from Zhongshan University, China; and his doctorate in molecular plant pathology from Ohio State University. Zeng continued his research as a post-doc at Boyce Thompson Institute for Plant Research, Cornell University. Zeng's research over the last eight years has focused on the molecular biology and biochemistry of plant-microbe interactions. His research interests include exploring and defining the molecular basis underlying plant resistance and susceptibility against bacterial and fungal pathogens. Findings from his research will eventually lead to crop improvement and less pesticide usage, which is an important component of future sustainable agricultural practices aimed at less energy-intensive production of food, fiber and biofuels. Zeng's research focus at UALR will focus on the identification and characterization of genes and signal transduction pathways involved in rice and tomato immunity, especially the roles and molecular mechanism by which the ubiquitination system regulates defense responses in these plants. As Arkansas is considered a major rice producer in America, this is an attraction for Zeng's extensive rice research as a resource for his future work and collaborations. Considering the apparent conserved roles of ubiquitination-related components in human and plant immunity, findings from his research could therefore also benefit the understanding of some human diseases. Zeng's research has been published in various peer-reviewed journals, such as *Plant Cell* and *Nature*. The findings have contributed significantly to our understanding of the molecular mechanism by which the ubiquitination system regulates plant immunity against different pathogens.