

会议日程 Program

会议地点：西北农林科技大学交流中心 104 会议室

Location: Conference Room 104 in Communication Centre, NWAUFU

Oct 28, 2025

时间 Time	报告人 Speaker	内容 Activities	主持人 Chair
8:30-8:40	作物抗病论坛开幕式 Opening Speech		单卫星 教授 Prof. Weixing SHAN
	副校长张宏鸣教授致辞 Address by Prof. Hongming ZHANG, Vice President of NWAUFU		
8:40-8:50	合影 Group Photo		
8:50-9:20	默里·格兰特 教授 英国华威大学 Prof. Murray GRANT University of Warwick, UK	Cross talk in effector triggered immunity and signalling beyond the infection zone	单卫星 教授 Prof. Weixing SHAN
9:20-9:50	王明波 教授 澳大利亚联邦科学与工业 研究组织农业与食品部 Dr. Ming-Bo WANG CSIRO Agriculture in Canberra, Australia	Exploration of RNA Interference for Crop Protection	
9:50-10:20	冈特·多勒曼 教授 德国科隆大学 Prof. Gunther DOEHLEMANN University of Cologne, Germany	Ustilago maydis and the maize phyllosphere: Effectors at the Interface of Plant-Microbial Interactions	
茶歇 Tea & Coffee 10:20-10:40			
10:40-11:10	胡继宏 教授 西北农林科技大学 Prof. Jihong HU Northwest A&F University, China	Multi-omics analyses reveal the resistance genes in Brassica to clubroot and <i>Sclerotinia sclerotiorum</i>	杨琴 教授 Prof. Qin YANG
11:10-11:40	左为亮 博士 德国科隆大学 Dr. Weiliang ZUO University of Cologne, Germany	Modulation of host gene expression by fungal transactivation effectors	
11:40-12:00	刘广利 博士 西北农林科技大学 Dr. Guangli LIU Northwest A&F University, China	A Colletotrichum ATP-dependent effector enhances plant NDPK2 kinase activity to suppress plant immunity	

2025 Plant Disease Resistance Workshop, NWAUFU

12:00-14:00 午餐 用餐地点: 外专公寓西餐厅 Lunch Location: Western restaurant, Guest House			
14:00-14:30	杨琴 教授 西北农林科技大学 Prof. Qin YANG Northwest A&F University, China	A dominant-negative mutation in <i>ZmLRR-RK2</i> confers maize resistance to gray leaf spot	宁约瑟 研究员 Prof. Yuese NING
14: 30-15:00	伊恩·格雷夫 博士 澳大利亚联邦科学与工业研究组织农业与食品部 Dr. Ian GREAVES CSIRO Agriculture in Canberra, Australia	Developing novel RNAi technologies to enhance Plant resilience	
15: 00-15:30	吴刘记 教授 河南农业大学 Prof. Liuji WU Henan Agricultural University, China	Large-scale Identification and Functional Study of Maize Non-canonical Peptides	
15: 30-16:00	李磊 研究员 中国科学院遗传与发育生物学研究所 Prof. Lei LI Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, China	Ligand-PRR modules: From Model Plants to Crops	
茶歇 Tea & Coffee 16: 00-16: 20			
16:20-16:50	宁约瑟 研究员 中国农业科学院植物保护研究所 Prof. Yuese NING Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China	Dissection of the ubiquitin E3 ligase-mediated disease resistance in rice against <i>Magnaporthe oryzae</i>	李磊 研究员 Prof. Lei LI
16: 50-17:20	杨洋 博士 西北农林科技大学 Dr. Yang YANG Northwest A&F University, China	Mitochondrial ROS trigger inter-organellar signaling and prime ER processes to establish enhanced plant immunity	
17:20-17:40	魏玉树 博士 西北农林科技大学 Dr. Yushu WEI Northwest A&F University, China	A TPLATE-associated adaptor facilitates the internalization of RXLR effectors into plant cells	
17:40-18:00	于乃彬 西北农林科技大学 Mr. Naibin YU Northwest A&F University, China	The <i>ZmCBSPB1</i> regulates quantitative resistance to multiple foliar diseases in maize	
18:00-18:10	论坛总结 Conclusion remarks		单卫星 教授 Prof. Weixing SHAN

----- Biography of Speakers -----



Professor Murray GRANT

Murray GRANT holds the Elizabeth Creak Chair in Food Security at the University of Warwick. His lab uses multidisciplinary approaches to study plant immunity deploying genetics, molecular biology, metabolomics (small molecule profiling), imaging (whole plant and subcellular), gene editing/genetic manipulation and bioelectrical signaling approaches for new discovery.

This integrated approach examines overlap between pathogen associated molecular pattern (PAMP) and effector triggered immunity (PTI and ETI respectively), systemic acquired resistance (systemic immunity) and pathogen effector triggered suppression of immunity (ETS). Within this research programme they are focusing on the emergent field of chloroplast immunity and “metabolic immunity”.

While the research predominately focuses on bacterial phytopathogens and the model plant *Arabidopsis thaliana*, they also study diseases of banana, false banana and ash dieback, a fungal disease which is devastating UK's landscape.

MG also heads the newly established Elizabeth Creak Horticulture Technology Centre whose goals are to improve UK vegetable crops (primarily leafy brassica's) using precision breeding (gene editing) techniques.



Dr. Ming-Bo WANG

Dr Ming-Bo Wang is currently a senior principal research scientist in CSIRO Agriculture in Canberra, Australia. He received a Bachelor of Science (chemistry) degree in 1984 from Peking University of China, a Master of Science (chemistry) degree in 1987 from Chinese Academy of Sciences, and a Ph.D (plant molecular biology) in 1994 from Durham University of the United Kingdom. He joined CSIRO Plant Industry as a postdoctoral fellow in 1994, and has since focused his research on double-stranded RNA-induced gene silencing, developing gene silencing technologies for applications in agriculture and investigating the role of RNA silencing in plant viral diseases. His contributions to the gene silencing research made him a co-recipient of the 2007 Prime Minister's Prize of Science.



Professor Gunther DOEHLEMANN

Prof. Dr. Gunther Doeblemann is a full Professor at the Institute for Plant Sciences and the Cluster of Excellence on Plant Sciences (CEPLAS), University of Cologne, Germany. GD received his Diploma in Biology in 2003 and his PhD (2006) at the University of Kaiserslautern, Germany. From 2006-2008 he was a Postdoctoral fellow at the Max Planck Institute for Terrestrial Microbiology in Marburg, Germany, where he became a Research Group leader in 2009. In the same year, he visited the lab of Virginia Walbot at Stanford University to establish the concept of organ-specificity in the maize-Ustilago interaction. In 2014, he was appointed as full Professor for Terrestrial Microbiology at the University of Cologne. In the same year, he received the “Julius Kühn Preis” of the German Society for Plant Pathology. In 2018 he received an ERC consolidator grant. He is a member of the excellence cluster on plant sciences (CEPLAS) and leads the section of plant-microbe interactions of the German phytopathology society (DPG). His lab in Cologne studies microbial interactions of maize and barley, to understand how pathogenic microbes interfere with the plant immune system.



Dr. Ian GREAVES

Dr Ian Greaves undertook his PhD at the Australian National University studying genetic and epigenetic conservation in mammalian development. In 2003 he moved to the John Curtin School of Medical Research where he investigated the role of histone variants in cell differentiation. He then joined CSIRO in 2008 where he investigated the mechanisms underpinning hybrid vigour with a particular interest in epigenetics changes and the influence of defence response gene changes on hybrid growth. Since 2015 he has been the team leader of the RNA engineering team at CSIRO who focus on developing different RNAi technologies to address needs within the Agricultural sector. Of particular interest has been engineering RNAi molecules to enhance crop resilience against different pests and diseases.



Professor Jihong HU

Dr. Jihong Hu is a Professor of State Key Laboratory for Crop Stress Resistance and High-Efficiency Production and College of Agronomy, Northwest A&F University. He obtained his Ph.D. in Genetics in Wuhan University, China. Then he worked as a postdoc fellow and assistant professor in Chinese Academy of Sciences and Chinese Academy of Agricultural Sciences from 2014 to 2022, respectively. Now he focuses on functional genomics and molecular breeding for high yield and stress resistance in *Brassica napus*. The genetic basis and regulatory mechanism of yield traits and stress resistance in *Brassica napus* were analyzed by means of genomics, bioinformatics and molecular biology. In recent years, He has contributed to 35 peer reviewed publications in *Nature Genetics*, *Nature Plants*, *Plant Communications*, and *Soil Biology & Biochemistry*. He also serves as the associate editor of the international academic journal *Frontiers in Plant Science* and as a junior editor of the *Journal of Genetics and Genomics* and *Horticulture Research*.



Professor Lei LI

Lei Li, Group leader, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences. Dr. Li got his BS in biotechnology at Northwest A&F University. He obtained his PhD working on plant immune pattern recognition receptor complex and virulence function of pathogen effectors at the Institute of Genetics and Developmental Biology in the laboratory of Prof. Jian-Min Zhou. Then, he moved to the Max-Planck-Institute for Developmental Biology as a postdoc working with Prof. Detlef Weigel on the mechanism of NLR-mediated plant hybrid necrosis. Now Lei Li's lab is interested in the molecular mechanism of plant immunity and soybean disease resistance. Lei Li has published papers as the first or corresponding author in *Nature Plants*, *Cell Host Microbe*, *Science* et al.



Dr. Guangli LIU

Dr. Guangli Liu is a postdoctoral fellow in the Department of Tea Science at the College of Horticulture, Northwest A&F University. His research centers on the molecular basis of plant-*Colletotrichum* interactions and plant disease resistance mechanisms. As first author, he has published research papers in *Science Advances* and *Plant Cell & Environment*. He has participated in the publication of more than 10 scientific research papers in *New Phytologist* and *Plant biotechnology journal*, etc. He received the Outstanding Graduate Student Award of NWAUFU, the Outstanding Doctoral Dissertation Award of NWAUFU, the Innovation Award in Plant Pathology, and the Outstanding Presentation Award at the Mycological Society Annual Conference 2025.



Professor Yuese NING

Yuese Ning is a professor at the Institute of Plant Protection (IPP), Chinese Academy of Agricultural Sciences (CAAS).

He obtained his Ph.D. from Hunan Agricultural University in China. During this period, he received joint training in the Institute of Genetics and Developmental Biology, Chinese Academy of Sciences and Ohio State University. Following his Ph.D. training, Dr. Ning got a faculty position at IPP, CAAS, and currently serves as the director of the plant protection biotechnology center.

Dr. Ning's research focuses on investigating the molecular mechanisms between the *Magnaporthe oryzae* effector and rice resistance protein. Specifically, his lab is dedicated to studying the mechanisms of E3 ubiquitin ligase-mediated disease resistance in rice.

In the past five years, Dr. Ning has published numerous high-profile papers in esteemed journals such as *Developmental Cell*, *Science Advances*, *Genome Biology*, *Plant Cell*, *Molecular Plant*, and many others.



Professor Liuji WU

Liuji Wu received her Ph.D. degree from Zhejiang University in 2009. From 2015 to 2017, she conducted collaborative research with Professor Jianbing Yan at Huazhong Agricultural University and Professor Steven P. Briggs at the University of California. She is currently a Professor and at Henan Agricultural University, an adjunct professor at the University of New England (Australia), and the Deputy Director of the State Key Laboratory of Wheat and Maize Crop Science. Liuji Wu's lab focuses on the identification and functional characterization of novel plant (maize) peptides. She was the first to establish the methodological framework of plant peptidomics and peptidogenomics. Using this approach, her team constructed the genome-scale map of endogenous plant peptides and further elucidated the roles of novel peptides in maize immune responses. These studies have provided new perspectives and entry points for plant functional genomics and opened new avenues for understanding stress resistance in crops. Liuji Wu has published papers as the corresponding author in *Science Advances*, *Cell Reports*, and *Molecular Plant* et al.



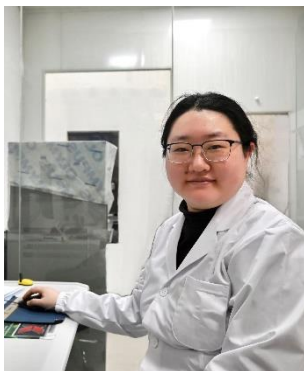
Dr. Yushu WEI

Dr. Yushu WEI is a postdoctoral fellow in the agricultural college ,Northwest A&F University. His research centers mainly focus on the molecular mechanism analysis of plant disease resistance via forward genetics and genomics. As first author,he has published one research articles in *Plant Physiology*. He has participated in the publication of 4 scientific research papers in *Plant Physiology* and *Current Biology*, etc. He is proficient in bioinformatics analysis, such as the software in transcriptomics or genomics and statistical analysis languages like R and PYTHON. He used these techniques to discover some immune-related genes in plant.



Professor Qin YANG

Dr. Qin Yang is a professor in College of Agronomy at Northwest A&F University. She received her bachelor's degree in 2005 and Ph.D. in Plant Genetics and Breeding in 2010 from China Agricultural University. She conducted postdoctoral research at North Carolina State University. She joined Northwest A&F University in 2018. Her research mainly focused on the genetic and mechanistic bases of quantitative disease resistance in maize and using this knowledge to develop more resistance maize varieties. Dr. Yang's group has identified several genes controlling quantitative disease resistance to major fungal diseases, including southern leaf blight, gray leaf spot, and *Gibberella* stalk rot. She has published her findings in high-impact journals including *Nature Genetics*, *PNAS*, etc. She also contributed to several reviews summarizing the genetics of quantitative disease resistance.



Dr. Yang YANG

Yang YANG obtained her PhD from the Northwest A&F University, followed by a postdoctoral fellow with Professor Weixing SHAN. She is interested in mitochondrial regulation of plant immunity and the oomycete-plant interaction mechanism. She has published four research articles with some in high profile journals in plant science, including *Science Advances*, *Plant Cell*, *Plant Physiology*, and *Molecular Plant*, among others.



Mr. Naibin YU

Naibin Yu, a Ph.D. candidate under the supervision of Professor Qin Yang at the College of Agronomy. His research during the postgraduate studies was mainly focused on the Quantitative Genetics in Maize and contributed to the research group in mining quantitative disease resistance loci, functional validation of resistance genes, and elucidating molecular mechanisms. He is proficient in the research methodologies and experimental techniques of quantitative genetics and molecular biology. His primary responsibility within the research group includes the disease resistance phenotyping in the field, mapping the resistance genes and clarifying the molecular mechanisms of disease resistance for Southern Leaf Blight and Gray Leaf Spot in maize.



Dr. Weiliang ZUO

Dr. Weiliang Zuo is a post-doc researcher at University of Cologne. He received his Bachelor degree in “Biotechnology” at Yangzhou University and PhD degree in “Crop genetics and breeding” at China Agricultural University. At 2016, he got “Humboldt Research Fellowship” and since then work as post-doc researcher at University of Cologne, Germany. The present focus of his research is to understand the function of effectors in maize fungal pathogens. His long-term objective is to elucidate the molecular mechanism of the complex interactions between maize and its associated microbes.