

## SCIENTIFIC PROGRAM

### SESSION LECTURE

No. 25

Plant Biotic Interactions

Room: 305

Co-Chairs: Zuhua He



Jane E. Parker



Day 2 October 28<sup>th</sup> (Sunday) 13:30 – 17:00

Time	Speaker	Title
13:30-14:00	<b>Zuhua He</b> <i>Shanghai Institutes for Biological Sciences, CAS, China</i>	Broad-spectrum blast resistance in rice: signaling and breeding application
14:00-14:30	<b>Jane E. Parker</b> <i>Max-Planck Institute for Plant Breeding Research, Germany</i>	Intracellular receptor activation and signaling in plant effector-triggered immunity
14:30-15:00	<b>Corné Pieterse</b> <i>Utrecht University, the Netherlands</i>	The root microbiome and plant immunity
15:00-15:30	<b>Tea Break</b>	
15:30-16:00	<b>Simona Radutoiu</b> <i>Aarhus University, Denmark</i>	Nod factor recognition at root epidermis and its impact on microbiota assembly in <i>Lotus japonicus</i>
16:00-16:30	<b>Jianmin Zhou</b> <i>Institute of Genetics and Developmental Biology, CAS, China</i>	How Arabidopsis immune receptor kinases activate immune responses?
16:30-17:00	<b>Guangcun He</b> <i>Wuhan University, China</i>	Molecular interaction between rice and brown planthopper



### Zuhua He

[zhhe@sibs.ac.cn](mailto:zhhe@sibs.ac.cn)

The aims of his research are to establish a cutting-edge research for dissecting and reconstructing of broad-spectrum disease resistance with yield balance in crops, including 1) gene discovery and mechanisms of plant immunity and broadspectrum disease resistance; 2) mechanisms of cross-talks between disease resistance and yield traits particularly mediated by phytohormones; 3) rice functional genomics of important yield traits and their impacts on field disease resistance. More importantly, several key plant genes identified by his lab including the broad-spectrum blast resistance genes have been widely used in crop breeding.



### Corné Pieterse

[C.M.J.Pieterse@uu.nl](mailto:C.M.J.Pieterse@uu.nl)

Corné Pieterse (1964) is professor Plant-Microbe Interactions and scientific director of the Institute of Environmental Biology of the Faculty of Science. His research group investigates how the plant immune system protects plants against microbial pathogens and insect herbivores, and how beneficial microbes in the plant root microbiome stimulate plant growth and health. Current research is focused on plant beneficial functions that are encoded by the root microbiome, the role of plant genes that aid in maximizing profitable functions from the root microbiome, and crosstalk between plant defense hormones. With his research he aims to contribute to grand societal challenges, such as food security and sustainable agriculture.

### Jianmin Zhou

[jmzhou@genetics.ac.cn](mailto:jmzhou@genetics.ac.cn)

The aims of his research are to understand the molecular mechanisms underlying pathogen-recognition by host plants, including how plant immune receptors sense microbial molecules to trigger defenses and how pathogens subvert host immunity to cause diseases.



### Jane E. Parker

[parker@mpipz.mpg.de](mailto:parker@mpipz.mpg.de)

The aim of Jane Parker's research is to understand how plants activate and finetune their innate immunity pathways for effective pathogen resistance. In the model plant Arabidopsis, genetical, genomic and protein molecular/structural approaches are being used to characterize early host signaling events in effector-triggered immunity mediated by intracellular NLR receptors. Also, an Arabidopsis wild population study is being undertaken to gain insights to the evolutionary and ecological forces underlying plant NLR receptor maintenance and function in nature.



### Simona Radutoiu

[radutoiu@mbg.au.dk](mailto:radutoiu@mbg.au.dk)

The aim of her research is to understand the molecular mechanisms underlying microbial association with plants roots. They use plant and bacterial genetics to study the symbiosis between legumes and nitrogen-fixing rhizobia both in binary interactions but also in the presence of complex microbial communities.



### Guangcun He

[gche@whu.edu.cn](mailto:gche@whu.edu.cn)

The aims of his research are to identify the gene controlling resistance to insect pest brown planthopper in rice, to understand the molecular mechanism of interaction between rice and planthopper, and to facilitate development of planthopper-resistant rice variety.

