

## SCIENTIFIC PROGRAM

### SESSION LECTURE

No.6

**Insect Vectors for Plant Diseases**  
**Room: Phoenix Room 1**

**Co-Chairs:**  
**Feng Cui**



**Stéphane Blanc**



**Day 2 October 20th (Sunday) 14:00 – 17:30**

Time	Speaker	Title
14:00-14:30	<b>Stéphane Blanc</b> Université de Montpellier, France	The accumulation process of nanoviruses in their aphid vectors limits the loss of segments of the multipartite genome
14:30-15:00	<b>Yi Li</b> Peking University, China	Perception of viral infection and initiation of antiviral defense in rice
15:00-15:30	<b>Jennifer Brisson</b> University of Rochester, USA	Genetic factors underlying the occurrence of the pathogen-transmitting winged morph of aphids
15:30-16:00	<b>Tea Break</b>	
16:00-16:30	<b>Xueping Zhou</b> Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China	Phloem restriction of a plant virus facilitates insect transmission
16:30-17:00	<b>Marilyne Uzest</b> Université de Montpellier, France	Non-circulative transmission of plant viruses by aphids: a stylet perspective
17:00-17:30	<b>Feng Cui</b> Institute of Zoology, Chinese Academy of Sciences, China	A case for the conservative strategy applied by arboviruses for infection in insect vector and host



### Feng Cui

[cuif@ioz.ac.cn](mailto:cuif@ioz.ac.cn)

Deputy Director of State Key Laboratory of Integrated Management of Pest Insects and Rodents, Institute of Zoology, Chinese Academy of Sciences (CAS). She devotes to dissect the mechanisms of plant and human arbovirus transmission, including viral entry to and release from salivary glands and gut of insect vector, immune interactions, cross-kingdom regulation of saliva effectors, and viral genomic adaptation in insect vector and host.



### Stéphane Blanc

[stephane.blanc@inrae.fr](mailto:stephane.blanc@inrae.fr)

Dr. Stéphane Blanc is affiliated with the National Institute for Research in Agronomy and Environment (INRAE) in Montpellier, France. He spearheads a research program dedicated to unraveling the complex biology of multipartite viruses. These viruses represent a largely unexplored area of virology; the mechanisms behind their evolution and functionality are still shrouded in mystery. His team is examining the benefits and costs associated with such unique genome architectures and packaging strategy. Their investigations employ a comprehensive range of experimental approaches, spanning molecular, cellular, host organism, vector transmission levels, and extending to field studies.



### Yi Li

[liyi@pku.edu.cn](mailto:liyi@pku.edu.cn)

Ph.D, Professor and the director of the State Key Laboratory of Ecological Pest Control for Fujian and Taiwan Crops, Fujian Agricultural and Forestry University. Prof. Yi Li's laboratory uses two rice infecting viruses, rice dwarf Phytoeovirus (RDV) and rice strips Tenuivirus (RSV), vector insects and rice as model systems to address some fundamental questions of virus-insect vector-rice host interactions. These questions cover how plant cell senses virus infection and initiation of antiviral responses, how insect vectors transmission of viruses and vector adaptation in nature.



### Jennifer Brisson

[jennifer.brisson@rochester.edu](mailto:jennifer.brisson@rochester.edu)

PhD, Professor of Biology at the University of Rochester. Research in the Brisson lab investigates how genetics and the environment shape organismal phenotypes using an important plant-feeding insect, the pea aphid, as a model. The lab uses genetic, genomic, and developmental biology approaches to understand how and why aphids produce alternative winged and wingless morphs and how the mechanisms underlying morph determination evolve over time.



### Xueping Zhou

[zzhou@zju.edu.cn](mailto:zzhou@zju.edu.cn)

Director and Professor of the State Key Laboratory for Biology of Plant Diseases and Insect Pests, Institute of Plant Protection of the Chinese Academy of Agricultural Sciences (CAAS). The aims of his research are to elucidate functions of geminiviruses and rice virus encoded proteins, decipher the mechanism of plant-virus and plant-virus-vector interactions, and develop genetic engineering plants for viral disease resistance.



### Marilyne Uzeit

[marilyne.uzest@inrae.fr](mailto:marilyne.uzest@inrae.fr)

Senior Scientist at INRAE, at the Plant Health Institute of Montpellier, France. Her research focuses on the mechanisms of non-circulative plant virus transmission by vectors. She is particularly interested in identifying receptors on the surface of the cuticle of aphid stylets. Uzeit lab combines multiple approaches, including multi-omics and innovative 3D imaging technologies, to identify the molecules critical to virus transmission by aphids and to characterize stylet biogenesis.