

SEMINAR

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The Auditorium (Level 1)

Hosted by: Dr YU Fengwei

Advances on the functional genomics of the rice brown planthopper

Dr Zhang Chuan-Xi
Zhejiang University, China



The rice brown planthopper is the most destructive pest of rice plant, and have been outbreak in about 1 third of the years and resulted in millions of tons losses in Asia.

This talk will focus on its functional genomics, including long-distance migration and population diversity, molecular mechanism of wing dimorphism, saliva proteins and its relationship with rice host, planthopper-Fungus-Bacterium triple symbiosis system, and potential usage in the pest control.

Dr. Chuan-Xi Zhang is a professor of Institute of Insect Science at Zhejiang University (ZJU) , China since 1998. He finished his Ph.D. work in Shanghai Institute of Biochemistry, CAS, in 1997, and then set up the lab of Insect Molecular Biology in Zhejiang University. His research focuses on the area of functional genomics of the rice planthoppers and their potential usage in the pest control.

Recent Publications:

1. Xu H-J, Xue J, Lu B, Zhang X-C, Zhuo J-C, He S-F, Ma X-F, Fan H-W, Ye Y-X, Pan P-L, Xu J-Y, Li Q, Bao Y-Y, Nijhout HF, **Zhang C-X**★. 2015. Two insulin receptors determine alternative wing morphs in planthoppers. *Nature*.519, 464–467
2. Xue J, Zhou X, **Zhang C-X**★ et al, 2014. Genomes of the rice-pest brown planthopper and its endosymbionts reveal complex complementary contributions for host adaptation. *Genome Biology*, 15:521
3. Pan P-L, Ye Y-X, Lou Y-H, Lu J-B, Cheng C, Shen Y, Moussian B, **Zhang C-X**★ 2018. A comprehensive omics analysis and functional survey of cuticular proteins in the brown planthopper. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 115: 5175-5180