



MMI 291 Seminar Series

Current Theme: Interdisciplinary Research
Spring Quarter 2021 – CRN 51367

Friday Seminar – 12:10-1 p.m.



May
21

“Understanding plant-pathogen interactions at single cell level”

Research / Bio

Plants can be infected by all pathogen classes. Losses due to plant disease impact food security. Previous investigations of plant responses to pathogens primarily focus on changes in a particular tissue type. Using image-based and sequence-based single cell approaches, my research on rice-fungal and *Arabidopsis*-bacterial interactions reveal spatiotemporal dynamics of plant-pathogen interactions at the single-cell level.



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Publications

Jie Zhu, Abigail J. Courtney, Peng Qi, Katrien Devos, Zarchary A. Lewis and Chang Hyun Khang. The histone modification H3K27me3 and transcription factor MoGti1 coordinately control expression of effector genes in rice blast fungus. In revision

Jie Zhu, Jun Seop Jeong and Chang Hyun Khang. 2021. Tandem repeats in *Magnaporthe oryzae* effector gene *PWL2* promoter contain a *cis*-active element required for *PWL2* induction during plant infection. *Molecular plant pathology*, 22(5), 508-521.

Kiersun Jones, **Jie Zhu**, Cory B. Jenkinson, Dong Won Kim, and Chang Hyun Khang. Disruption of the interfacial membrane leads to *Magnaporthe oryzae* effector re-location and lifestyle switch during rice blast disease. In revision

May 21, 2021
12:10 – 1 p.m.
ZOOM Meeting

Medical Microbiology
& Immunology
School of Medicine

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We hope to see you there!