

How can plants stay in this world
while their pathogens can evolve
much faster?

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日時 : 7月19日(水) 15:00~16:30
場所 : 理学部5号館2階 5-201室

Many plant pathogens are microbial and can evolve much faster than plants. How can plants stay in this race of evolution against pathogens with lopsided disadvantage? An answer is that plants hide and change the goal of the race instead of fairly competing in the race. I will discuss two of the mechanisms with which plants hide and change the goal: resilience of the immune signaling network and coevolution of homologous immune regulators. I will also discuss how plants limit the battlegrounds using these mechanisms.

Ref) Zhang *et al.*, *New Phytol.* 2022. <https://doi.org/10.1111/nph.17769>

Liu *et al.*, *BioRxiv*, <https://doi.org/10.1101/2022.12.30.522333>

Plant Science Seminar

Dr. Fumiaki Katagiri is a Professor in the Department of Plant and Microbial Biology at the University of Minnesota, USA. He pioneered and has been leading systems biology in plant immunity. Many of his publications contributed to understanding the structure and emerging properties of plant immune signaling. He is a biologist studying plant-microbe interactions with a strong mathematical and computational biology background. You can learn how mathematics and computation help understand plant immune networks and responses from transcriptome data sets.

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