



THE CHINESE UNIVERSITY OF HONG KONG
SCHOOL OF LIFE SCIENCES

**LIFE SCIENCES SEMINAR SERIES
2023 – 2024**

**Mechanosensory long-distance defense
signaling in plants**

Seminar summary:

*Plants sense local mechanical stresses, transmit this information throughout their body and trigger systemic responses. For example, when a leaf is mechanically wounded or attacked by insects, plants activate defense responses not only in the wounded leaf but also in distal leaves. Our laboratory is focused on the molecular machineries underlying such immediate sensory and systemic signal transduction in plants. By using highly-sensitive genetically-encoded indicators and wide-field imaging techniques, we have visualized a variety of mechanosensory long-distance signals in the model plant, *Arabidopsis thaliana*, the carnivorous plant *Dionaea muscipula* (Venus flytrap), and the sensitive plant, *Mimosa pudica*. In this seminar, we will show that the cytosolic Ca^{2+} plays a central role in the plant-wide communication system triggering chemical and physical defense responses against herbivorous insect attack.*

by

**Dr. Toyota Masatsugu,
Department of Biochemistry and Molecular Biology,
Saitama University, Japan**

on

**11 October 2023
(Wednesday)**

at

3:00 pm – 4:00 pm

at

**SC297, Science Centre
The Chinese University of Hong Kong**

ALL ARE WELCOME