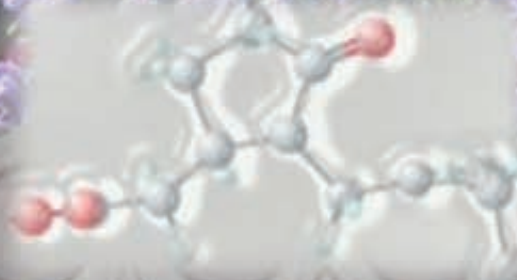


Topics in Advanced Biological Science IGER SEMINAR

Integrative Graduate Education and Research Program in Green Natural Sciences



2016 **12.9** Fri 15:00 -
理農館 SA329 号室

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“How distress signals affect growth in plants: biotechnology for health and fuel production”

Dr. Alessandra Devoto (Leader in Molecular Plant Biology School of Biological Sciences, Royal Holloway - University of London)

Plant development and stress responses are regulated by complex signalling networks that mediate specific and dynamic plant responses upon activation by various types of signals. Jasmonates (JAs) mediate responses to stress and act like growth inhibitors. The latest work has identified new regulatory nodes in the transcriptional network that regulates a number of diverse plant responses to developmental and environmental cues. In my laboratory, we are interested in discovering the cellular components linking plant stress responses to growth processes with the aim to improve yield and adaptation of plants to their environment. We also exploit the ability of JAs to induce protective secondary metabolites to develop novel functional screenings to improve the understanding of key pathways leading to the production of economically important compounds. A second research line is aimed at tailoring the composition of cell wall polymers to improve processing of biomass. The improvement of key traits for the production of biomass and biofuels in microbes and plants is achieved by affecting the composition of plant cell wall polymers. This research aims to develop novel plant varieties and to select microbes to improve biomass and its processing.



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