Using synthetic biology to re-engineer calcium signalling pathways in plants

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Room No.205, building A11

START: 14.00

The calcium ion (Ca2+) is an essential second messenger in many signalling pathways. In plants, specific calcium signals have been described during signalling in response to biotic interactions with pathogens or symbionts, and various abiotic stresses such as drought, cold or salt stress. These different calcium signals contain information about the original stimulus and therefore need to be decoded by cells in order for the correct biological response to be triggered. Plants possess an extensive network of calcium-binding proteins which mediate the decoding of calcium signals, however the mechanisms by which these proteins are regulated is not fully understood. The research in my group uses bioimaging, genetics and synthetic biology approaches to understand how these different proteins decode calcium signals in plants.

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