School of Science Research Seminar

Tuesday 27th October 2020, 10:00
Zoom Meeting ID: 484 163 7742
(see below for full zoom invite)

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Hyperparasites as potential biocontrol agents of rust pathogens

Rust pathogens cause damage to plants of agricultural and ecological importance in Australia. Hyperparasites are antagonists of plant pathogens and may provide a potential method of biocontrol against increasingly virulent strains of rust. Here we discuss their isolation, genomic characterisation and identification of antifungal natural products.

And

Chenchen Zhao[1], Yuanyuan Wang[2], Kai Xun Chan[3], D. Blaine Marchant[4], Douglas E. Soltis[4], Barry J. Pogson[3], Zhonghua Chen[1]

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A chloroplast retrograde signal for stomatal evolution and drought tolerance

Chloroplast retrograde signalling networks are vital for chloroplast biogenesis, operation, and signalling, including high light and drought stress signalling in green plants. We showed that key elements of the chloroplast retrograde signalling process, the nucleotide phosphatase (SAL1) and 3′-phosphoadenosine-5′-phosphate (PAP) metabolism, have evolved in streptophyte algae—the algal ancestors of land plants. Our findings suggest that plants' adaptation to drought stress was facilitated by this ancestral SAL1-PAP signalling pathway, intersecting with the core ABA signalling in stomatal guard cells.

For details about SoSC seminars, please contact Dr Patrice Castignolles, (p.castignolles@westernsydney.edu.au).

Patrice Castignolles is inviting you to a scheduled Zoom meeting.

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