

Curriculum Vitae



Alex Webb

Alex Webb is Senior Lecturer, University of Cambridge. Uses systems approaches to identify the signalling network by which the circadian oscillator regulates cell physiology. He has demonstrated that the circadian clock increases assimilation, growth and survival of plants (Dodd et al., 2005 Science 309, 630 – 633), there are circadian and diurnal Ca²⁺ oscillations that encode photoperiodic information in *Arabidopsis* (Love et al., 2004 Plant Cell 16, 956 – 966) and these circadian oscillations of [Ca²⁺]_c are driven by oscillations of cyclic ADP ribose forming a cytosolic loop of the clock (Dodd et al., 2007 Science 318, 1789 -1792). I have also shown that there is circadian modulation of low temperature-induced increases in [Ca²⁺]_c in plant cells (Dodd et al., 2006 Plant J.48, 962 – 973; Hotta et al., 2007 PCE 30, 333-349). They found that there are cell-specific circadian oscillators (Dodd et al., 2004 New Phyt. 162, 63-70; Xu et al., (2007) Plant Cell 19, 3474-3490; Somers et al., 1998 Development. 125, 485-494). I have collaborated with Dr Gonçalves to develop systems approaches to understand circadian signalling, achievements include providing a global understanding of the circadian control of biological timing, and GIGANTEA is required for the response of the plant circadian oscillator to sucrose, providing a mechanism for metabolic input to the circadian clock (Dalchau et al 2011 PNAS 108, 5104 -5109). As well as his studies of circadian function, He continues also to make advances in basic Ca²⁺ signalling research. His previous research focused on Ca²⁺ signalling in stomatal guard cells.

Speaker at:

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