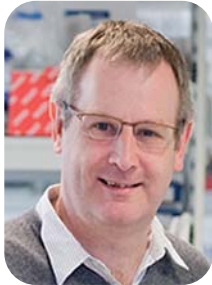


A KJELDGAARD LECTURE

Thursday 18 May 2017 at 13:15

1534-125 Auditorium F Mathematics

Same location for the PhD session



George Coupland

Max Planck Institute for Plant Breeding Research

Cologne

Germany

Control of seasonal flowering in annual and perennial plants

We study the mechanisms by which the life cycles of annual and perennial plants are synchronised to the changing seasons. *Arabidopsis thaliana* is a model annual species and we have shown how circadian-clock regulation of transcription of specific regulatory genes and photoreceptor signaling combine to promote flowering of this species in response to long summer days. Perennial relatives of *A. thaliana* show interesting differences in their responses to seasonal cues, and we have developed *Arabis alpina* as a model perennial. This species flowers predominately in response to winter cold, and shows characteristic features of perennials such as only becoming sensitive to environmental cues after it reaches a certain age and cycling between episodes of flowering and vegetative development within its life cycle. Using a combination of forward genetics, genomics and comparative analyses in a phylogenetic context we have defined some of the mechanisms by which flowering regulation differs between annuals and perennials, contributing to the divergence of these life histories during evolution.

Host: Simona Radutoiu, Plant Molecular Biology

Department of Molecular Biology and Genetics, Aarhus University

The lecture will be followed by a chalk-board session for PhD students