

Promotion Biology Seminar

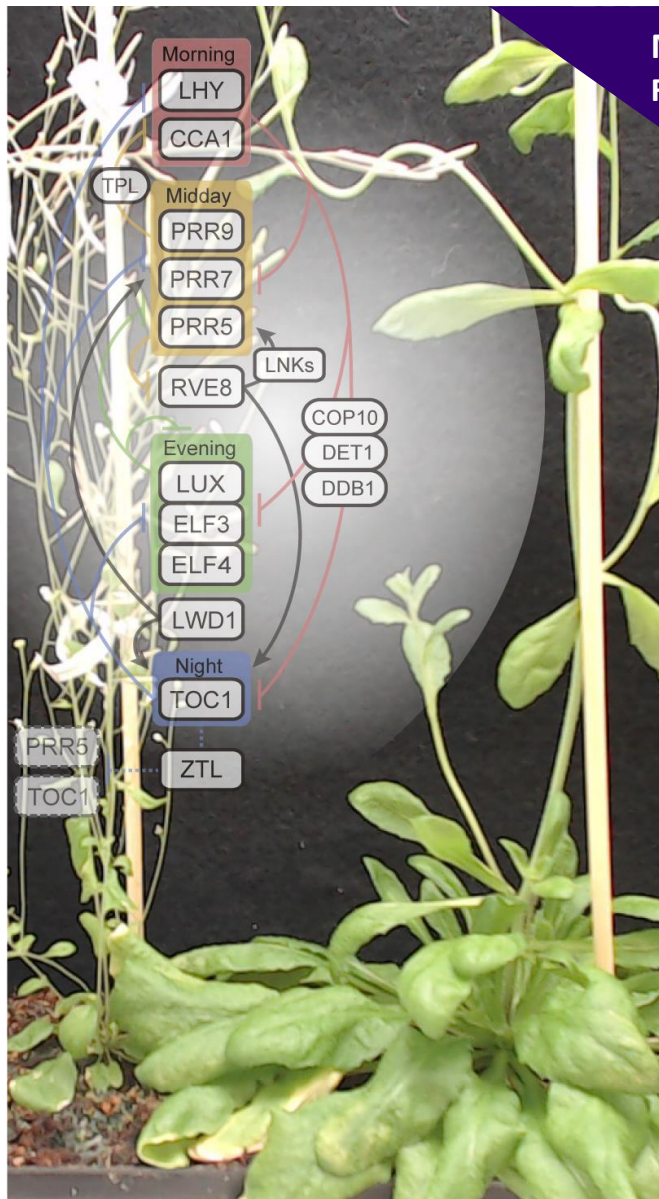
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Circadian Timing Mechanisms in Seasonal Flowering

Monday, October 3, 2016 | 12:00pm HCK 132
Refreshments at 11:45am



Many organisms display various seasonal developmental and behavioral changes throughout the year. To know the precise time of the season, as well as upcoming seasonal changes, they measure changes in day length as a highly predictable environmental variant. Day length (=photoperiod) information is processed through the molecular network controlled by an internal timing mechanism, the circadian clock. In my lab, we are interested in elucidating the molecular mechanisms by which organisms use the circadian clock system to measure seasonal changes. We use flowering time regulation in *Arabidopsis* as a main model to understand the mechanisms by which organisms selectively extract useful information from complex changing environments. For the last several years, we have expanded our research into studying the combinatorial effects of both day length and temperature for flowering time regulation. In addition, even though plants successfully flower in the right season, they often require pollinators to achieve successful fertilization. We recently demonstrated that the molecular clock also contributes to the timing of the plant-pollinator interaction. In this talk, I will describe our recent attempts to understand the molecular mechanisms by which the circadian clock precisely times the developmental events important for successful fertilization in plants.