

# Séminaire de Biologie des Plantes

Les séminaires ont lieu sur le Campus Montpellier SupAgro/INRA de La Gaillarde (2, place P. Viala Montpellier)

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**ATTENTION JOUR ET HORAIRE INHABITUELS**

**Lundi 25 mai 2009  
Amphi 206 (Cœur d'Ecole) à 11h00**

**Eva Benková**

(VIB Plant Systems Biology Department, UGent, Belgium)

## **Auxin - cytokinin interaction shaping root architecture.**

Plant development is characterized by a continuous growth and flexible adjustments of the plant architecture in response to the environment. Plants are able to maintain permanent stem cell populations, dedifferentiate already committed cells and, not least, to regenerate or form organs *de novo*. These developmental processes are governed and coordinated by signalling substances called plant hormones. Typically, in certain developmental processes more than one hormone is involved and, thus, coordination of their overlapping activities is crucial for correct plant development. Multiple hormones including cytokinin and auxin have been implicated in the regulation of root development however, molecular mechanisms underlying the hormonal cross-talk are only poorly understood. Our investigation of mechanisms of auxin-cytokinin revealed that CK regulates the cell-to-cell auxin transport by modulating expression of several PIN auxin efflux carriers. We propose a model for regulation of the auxin – cytokinin balance that is critical for root organogenesis. By modulating the auxin transport CK might control the auxin levels in cells and, thus, the ratio between auxin and CK.

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SEMINAIRES A VENIR :

Jeudi 28 mai : Dr. Weining Sun (Shanghai) (contact Christophe Maurel, [maurel@supagro.inra.fr](mailto:maurel@supagro.inra.fr)).

Jeudi 4 juin : Yves Vigouroux IRD (contact Christine Granier, [granier@supagro.inra.fr](mailto:granier@supagro.inra.fr) ou Claude Welcker, [welcker@supagro.inra.fr](mailto:welcker@supagro.inra.fr)).

Mardi 9 juin : Malcolm Bennett, University of Nottingham (contact Philippe Nacry, [nacry@supagro.inra.fr](mailto:nacry@supagro.inra.fr)).

Jeudi 25 juin : Tom Beeckman (VIB, Ghent University) : Root development and hormone signaling (contact Gregory Vert; [vertg@supagro.inra.fr](mailto:vertg@supagro.inra.fr)).