

A graduate student position in interaction of cytokinin and ethylene in wood formation

At the University of Helsinki, Finland, the Wood Development Group led by prof. Ykä Helariutta (<http://www.biocenter.helsinki.fi/bi/Helariutta/>) and the Plant Stress Group led by prof. Jaakko Kangasjärvi (<http://www.helsinki.fi/biosci/plantstress/>) are looking for a graduate student for a joint project with joint supervision. The position can be filled at the earliest from 1st of April 2009 and will be filled at the latest 1st of June 2009. Applications are evaluated until a suitable candidate is found.

We have shown that the plant hormones cytokinin and ethylene are essential regulators of wood formation. We assume that the two hormones interact to stimulate wood formation. However, the detailed information about hormonal interactions between these hormones in wood formation is lacking. Thus, this project attempts to analyze how the two hormones work together to control wood formation. Technically, the graduate student will combine the expertise of these two research groups. We have several transgenic tree lines that are modified either in cytokinin or ethylene signalling pathways, which facilitates an excellent opportunity to study their interaction. Furthermore, we work on this topic in *Arabidopsis*.

Both groups belong to the national Centre of Excellence in Plant Signalling Research and are working at the same laboratories of Viikki Biocenter, which has excellent facilities and access to all equipment and infrastructure required in this work. Please see the web pages for more detailed information of prof. Helariutta's and prof. Kangasjärvi's research groups.

The graduate student is expected to have a strong background in modern laboratory biology. A suitable background is M.Sc. degree in plant physiology/molecular biology, genetics and/or biochemistry. The salary will be paid according to the University's new salary system, which is based on the qualifications and personal performance of the individual. A graduate student fellow will most likely be at level 2 and depending on the personal performance, at level 5 the salary (before taxes) is between 2000 and 2200 € / month.

For further information email Dr. Jorma Vahala (jorma.vahala@helsinki.fi). Send applications (CV, list of publications, names and contact information for 2-3 persons for reference) before end of April 2009 by email. Applications are evaluated continuously and the position may be filled before the date mentioned.

Some recent publications from the groups:

Love J et al. 2009. Ethylene is an endogenous stimulator of cell division in the cambial meristem of *Populus*. Proc. Natl. Acad. Sci. USA. In Press.

Nieminen K et al. 2008. Cytokinin signaling regulates cambial development in poplar. Proc. Natl. Acad. Sci. USA 105:20032-20037.

Ruonala R et al. 2008. *CENL1* Expression in the Rib Meristem Affects Stem Elongation and the Transition to Dormancy in *Populus*. The Plant Cell 20:59-74

Mähönen AP et al. 2006 Cytokinin signaling and its inhibitor AHP6 regulate cell fate during vascular development. Science 311:94-98

Tuskan et al. 2006. The Genome of Black Cottonwood, *Populus trichocarpa* (Torr. & Gray). Science 313: 1596-1604.