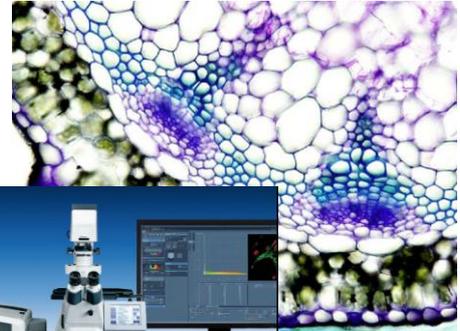


Are you interested in the Ph.D. study in Genomics and Proteomics?

We offer an interesting topic:

Molecular mechanisms underlying hormonal regulation of secondary thickening in *Arabidopsis*

In our lab we are interested in the study of plant hormonal signaling pathways, particularly cytokinins (CKs) in the development of model plant *Arabidopsis thaliana* (1-3). In *Arabidopsis* the CK signaling is mediated via sensor histidine kinases AHK2, AHK3 a AHK4. We found that AHK2 and AHK3 play a role in the onset of secondary thickening in *Arabidopsis* (3), a process that is responsible for formation of majority of wood in trees. The goal of the thesis will be to identify downstream targets of CK receptors in the onset of secondary thickening. The project will include transcriptional profiling using next-gen sequencing, bioinformatics, advanced histological techniques (e.g. *in situ* immunolocalization of proteins on *Arabidopsis* inflorescence stem sections), confocal microscopy and transgenic and mutant lines preparation and analysis. The project is being solved in frame of common grant project with Dr. Thomas Greb, GMI, Vienna.



Supervisor: Assoc. Prof. Jan Hejátko, Ph.D.

We expect: Highly motivated candidates with ambition of reaching top-ranked results.

We offer: Experimental work on own project with the possibility of publication in distinguished international journals, nice lab staff, world-class lab equipment including one of the best recently available confocal microscopes, attractive environment of novel university campus, help with both intellectual and practical problems, competitive salary corresponding to the work efficiency, abroad working stays in frame of the project. The position is available immediately.

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References

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