Postdoc in plant molecular genetics with a focus on epigenetics and chromatin biology

We are looking for highly motivated individuals to join our ongoing research projects on chromatin function and epigenetics in plants. We study regulation of flowering time and stress physiology. Our projects focus on the function of Polycomb Group proteins and other chromatin modifying protein complexes. Polycomb Group proteins are major regulators of cell fate and differentiation and have been implicated in tumor formation in animals. We use forward genetics, biochemistry, molecular biology and genomics approaches to uncover the molecular mechanisms by which chromatin states affect gene expression and establish cellular identity. Our approaches involve diverse technologies ranging from transcriptome and epigenome profiling by next generation sequencing to mass spectrometry. Recent work by the group can be seen in Mahrez et al. (2016) H3K36ac is an evolutionary conserved plant histone modification that marks active genes. *Plant Physiology*; Mehdi et al. (2016) The WD40 domain protein MSI1 functions in a histone deacetylase complex to fine-tune abscisic acid signaling. *Plant Cell*; Mozgová et al. (2015) Chromatin assembly factor CAF-1 represses priming of plant defence response genes. *Nature Plants*; Shu (2014) Arabidopsis replacement histone variant H3.3 occupies promoters of regulated genes. *Genome Biology*; Derkacheva et al. (2013) Arabidopsis MSI1 connects LHP1 to PRC2 complexes. *EMBO Journal*; Shu et al. (2012) Distinct modes of DNA accessibility in plant chromatin. *Nature Communications*.

The position is open to an enthusiastic individual with a solid background in biochemistry, molecular biology or genetics. Candidates with strong interest in epigenetics, chromatin and epigenomics are especially encouraged to apply.

The position is associated with the research group of Lars Hennig at the Department of Plant Biology at the Swedish Agricultural University in Uppsala. The department offers a creative and stimulating international environment. Plant science is particularly strong in Uppsala and coordinated in the Linnean Center for Plant Biology. In addition, the Evolutionary Biology Centre and other institutes at Uppsala University make unique expertise locally available. With the Science for Life Laboratories in Uppsala and Stockholm we have access to most advanced technology platforms for genomics, proteomics, bioimaging and chemical biology.

Uppsala, Sweden’s fourth largest city, has two universities and with 35’000 students a very lively student atmosphere. Stockholm, the Venice-of-the-North, is not far away – it takes only 40 minutes by train. Stockholm international airport is also close by, 20 minutes by train from Uppsala, and has frequent connections to many international destinations.

Applications, including (1) CV, (2) a description of research experiences, (3) a statement of scientific interests as well as (4) contact information of two to three referees should be submitted by e-mail to Lars.Hennig@slu.se.