Max Planck Institute for Plant Breeding Research (MPIPZ)
Cologne, Germany

PhD/Post-doc position: Comparative analysis of stress-induced genetic and epigenetic changes in *Arabidopsis*

Description: Applications are invited for a 3 year PhD or a 2 year Post-doc position (TvöD E13/2 or TvöD E13, respectively) at the Max Planck Institute for Plant Breeding Research (MPIPZ) in the group of Dr. Ales Pecinka. The position is funded as part of the German Research Foundation (DFG) Science Priority Programme 1529 „Adaptomics“, allowing for strong interactions with the leading experts in *Brassicaceae* biology. MPIPZ offers excellent research conditions, access to state-of-the-art technologies and an enthusiastic international atmosphere. The PhD student will be part of the MPIPZ graduate school.

There is emerging evidence that abiotic stress can alter chromatin states and enhance genomic instability (Pecinka et al., *Plant Cell*, 2010; Ito et al., *Nature*, 2011). This may have an impact on plant performance and yield. However, it is not clear what is the extent of stress-induced chromatin changes, their dynamics and underlying molecular mechanisms. Therefore, genome-wide chromatin profiles will be generated and analyzed under mock, stress and recovery conditions and compared to transcriptional data. Furthermore, specific stress-inducible families of transposons will be analyzed with respect to their transposition dynamics and evolution. In order to reveal species-specific and conserved patterns, the analysis will be conducted simultaneously in *Arabidopsis thaliana* and *Arabidopsis lyrata*, two closely related species differing as to their genome organization, life history and stress resistance.

Qualifications: The applicant should be highly motivated, possess an MSc or PhD in Life Sciences. Experience in bioinformatics and/or chromatin analysis is seen as essential. The Max Planck Society is committed to employing more handicapped individuals and especially encourages them to apply. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Application Details: Please submit your application including a CV and contact details for two referees to: pecinka@mpipz.mpg.de. The selection process will be started as soon as a sufficient number of candidates is reached. Expected starting date is no later than June 1st 2015.

Web: http://pecinka_lab.openwetware.org/