PhD position in Bioinformatics

The Max Planck Institute for Plant Breeding Research (MPIPZ) in Cologne, Germany invites applications for a PhD position in the field of bioinformatics, genome assembly and plant genomics. The position is available in the Genome Plasticity and Computational Genetics group headed by Dr Korbinian Schneeberger.

Background
The focus of our group involves the development of methods for the analysis of high-throughput sequencing data (including PacBio, 10X Genomics and Oxford Nanopore data), as well as the application of these methods in plant genetics/genomics. We develop new and creative methods to analyze genomes including reconstruction of the genome sequence (genome assembly) and analysis of differences to other genomes (genome comparison) covering all topics of sequence bioinformatics. We apply these methods to understand the dynamics of genomes and how they change over time - in short term over a few generations as well as over long evolutionary scales - as well as how these genomic differences encode for differences in the phenotypes.

The selected candidate will work on the analysis of synthetic polyploids, which results from an interspecies cross between two related plant species. We will analyze how the chromosomes of such hybrid plants (each cell carries the genomes of two species) rearrange and mutate over multiple generations. The candidate will be involved in design of the sequence experiment, computational genome analyses and interpretation of the results as well as in defining follow-up experiments.

Our requirements
In addition to a MSc in Bioinformatics, IT, Biology or related field, the applicant should have extensive knowledge in the use of Linux/Unix as well as sufficient biological background. The position further requires solid experience in scripting/software development (e.g. Perl, Python, C++), as well as HPC computing (e.g. job scheduling). The proven ability to work in a team at the interface between biology and informatics is essential. Very good organizational and communication skills are desired. In addition, good command of English language, the working language of our group, is required.

Payment / Position
The position is available immediately. Salary and benefits are commensurate with public service organization rules (TVöD). The Max Planck Society is an equal opportunity employer. Their goal is to enhance the percentage of women where they are underrepresented. Women, therefore, are especially encouraged to apply. The Society is committed to employing more handicapped people. Applications of handicapped people are particularly welcome.

Your application
For questions concerning the PhD project please contact Dr Korbinian Schneeberger. For application, please email an application letter clearly stating why you are applying for the position, including curriculum vitae, list of publications or similar achievements, and at least one academic letter of recommendation to Korbinian Schneeberger (schneeberger@mpipz.mpg.de) until February 19, 2017.