

ETH Zurich is one of the world's leading universities specialising in science and technology. It is renowned for its excellent education, its cutting-edge fundamental research and its efforts to put new knowledge and innovations directly into practice. The **Animal Genomics** and **Animal Genetics** groups at the **Institute of Agricultural Sciences**, ETH Zurich, invite applications for a PhD student in pig genomics.

## PhD - Utilizing sequence variation to strengthen the Swiss pig breeding programs (100%)

**The objective** of the PhD project is to compile a comprehensive catalogue of DNA variation that segregates in two Swiss pig populations using massive whole-genome sequencing data in order to improve the selection of future breeding animals. The successful candidate will be responsible for the analysis of pedigree, phenotype, genotype and whole-genome sequence data of two Swiss pig populations. Trait-associated sequence variants will be identified using bioinformatics and statistical approaches. Strategies will be developed to consider putatively deleterious, disease-associated and beneficial variants for the improvement of genome-based breeding programs. Close collaboration with an industry partner is foreseen in order to seamlessly integrate new findings into existing breeding programs.

The duration of the position is three years (with an option to extend for one year) and the position is available from April 2019 (the starting date is negotiable).

**The successful candidate** should have a strong interest either in animal breeding and genetics, statistical genomics and/or computational biology. The PhD student will be part of a young and dynamic team that enjoys working with big genomic data from animal populations. Applicants should hold a MSc degree in agricultural science, animal science, genetics, computational biology, bioinformatics or related disciplines. Affinity to statistics, bioinformatics and computational genomics is required. The writing of scientific papers and the participation in international conferences requires good knowledge of English.

**We offer** working in an exciting project carried out in a young and dynamic group at ETH Zurich equipped with excellent computational, lab and experimental animal facilities. Supervision will be close, but allow for independent work. Scientific writing and active participation in national or international scientific conferences is very much encouraged and supported.

**We look forward** to receiving your online application including a cover letter that demonstrates your motivation and suitability for a computational genomics-oriented position, a curriculum vitae with complete academic record, copies of Bachelor and Master degrees, and name and contact information of two references until **February 28, 2019**. Please note that we exclusively accept applications submitted through our online application portal. Applications via email or postal services will not be considered.

**For further information** regarding the advertised position or about ETH Zurich in general, please visit our website (<http://www.ag.ethz.ch>) or contact Prof. Hubert Pausch at [hubert.pausch@usys.ethz.ch](mailto:hubert.pausch@usys.ethz.ch) (no applications).



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