Leibniz-Institut für
Zoo- und Wildtierforschung
IM FORSCHUNGSVERBUND BERLIN E.V.

Vacancy

The Leibniz Institute for Zoo and Wildlife Research (IZW) in Berlin is Germany's premier wildlife research institute and funded by the federal government of Germany and the state government of Berlin. The IZW focuses on the life histories and mechanisms of evolutionary adaptations of mammals and birds and their conservation in natural and anthropogenically influenced environments. The institute operates within the fields of evolutionary ecology and genetics, wildlife diseases and reproduction biology and management, has excellent facilities and is currently expanding its research program (http://www.izw-berlin.de).

Within the SAW-project (Joint Initiative for Research and Innovation) "Paternal epigenetic effects" and the Berlin Center for Genomics and Biodiversity we offer **from now on** a project work for a

Bioinformatics student (f/m) at the Diplom/Master level (reference number 26/2012).

We are interested in the impact of the environment on the genome, more concrete: on all methylated DNA sequences, also called the "methylome" of wild mammals. DNA methylation is a regulatory mechanism controlling gene expression. It is reversible and heritable and thus important for adaptation.
Our model organism is the Brazilian guinea pig (*Cavia aperea*). The whole genome is now sequenced. We just sequenced the first libraries, enriched for methylated DNA of different tissues to compare their tissue specific methylomes.

Specific tasks
- Working with an newly-created reference sequence of the Brazilian guinea pig (*Cavia aperea*);
- Identifying genes, CpG islands, promoter regions, enhancers, a. o. and visualizing the results;
- Development of scripts using the Python language for alignment and comparison of similar sequences;
- Statistical analysis for scientific publications.

Requirements
- Biology/Bioinformatics background with some Molecular Biology knowledge (for Bachelors students, successful completion of the Bachelor degree);
- Programming skills (Python or similar);
- Good proficiency in word and writing English.

We are looking for a motivated student who is willing to work in an interdisciplinary and international environment. The successful candidate will work on a methodical and environmental cutting edge topic and will accomplish experience in working with sequencing data, gaining knowledge in the newly developing field of epigenetics, as well as in the annotation of a newly sequenced organism. The project can lead to a master thesis.
Financial support can be provided up to **400€ per month** (**11€/h**) within the SAW project for specific project tasks.
The earliest starting date is 1st August, 2012. Applications will be considered until position is filled. The IZW is determined to increase the proportion of women in science and particularly encourages female scientists to apply. For further inquiries and information please contact **Dr. Camila Mazzoni** (mazzoni@izw-berlin.de) or **Dr. Alexandra Weyrich** (phone: 030-5168-313 or e-mail: weyrich@izw-berlin.de). The quoting **reference number is 26/2012**.

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