



PhD studentship. Fur seal evolutionary genomics.

Supervisors: Dr Joe Hoffman (Bielefeld University, Germany)
and Dr Jaume Forcada (British Antarctic Survey, UK)

Many studies of wild populations reveal links between heterozygosity and fitness, with highly heterozygous individuals carrying fewer parasites, living longer and being more attractive to mates. However, because most studies use only around ten microsatellite markers, we do not yet know which of two possible mechanisms is most important nor which types of gene could be involved. This studentship will take full advantage of emerging next-generation technologies to elucidate the relationship between heterozygosity and fitness in a natural vertebrate system based on a large body of genetic and observational data from an intensively studied colony of Antarctic fur seals (*Arctocephalus gazella*). The objective is to determine the main mechanism(s) responsible for heterozygosity-fitness correlations using a combination of high-density SNP genotyping, linkage mapping and comparative genomics.

We seek a bright and highly motivated student who ideally holds an M.Sc. or equivalent in a relevant topic (e.g. population, evolutionary or conservation genetics, bioinformatics). Experience of working with next generation sequence data (including writing custom scripts), SNP discovery and genotyping (including RAD sequencing and high-density SNP arrays) and quantitative genetics (including linkage mapping) would be advantageous, but full training will be provided. The ideal candidate will also be able to work both independently and as part of a team. A high standard of spoken and written English is required.

The student will be based at the Department of Animal Behaviour at Bielefeld University (www.uni-bielefeld.de/biologie/vhf/index.html). The department is the oldest of its kind in Germany and currently hosts six principal investigators, seven postdocs and twenty PhD students. It offers a stimulating international environment and an excellent research infrastructure including a brand new molecular laboratory. The working language of the Department is English. The student will also have the opportunity to interact with cooperation partners (Prof Jon Slate and Dr Jochen Wolf) through placements at Sheffield and Uppsala Universities respectively.

Bielefeld is a city of 325,000 inhabitants with an attractive historical centre and easy access to the Teutoburger Wald for hiking and other outdoor pursuits. It offers a very high standard of living and is well connected to most major European cities.

This generous studentship, which provides a net salary of at least €1500 per month and includes health insurance, is funded by the German Science Foundation (DFG) for a period of three years. Funding is also available for attending conferences. To apply for the position, please provide: (i) a letter of motivation including a maximum 2-page statement of your research interests, relevant skills and experience; (ii) a CV including publication list; and (iii) names and contact details of three referees willing to write confidential letters of recommendation. All materials should be emailed as a single PDF file to: joseph.hoffman@uni-bielefeld.de with 'PhD application' in the subject line.

The University of Bielefeld is an equal opportunity employer. We particularly welcome applications from women. Given equal suitability, qualifications and professional achievement, women will be given preference, unless particular circumstances pertaining to a male applicant apply.

The application deadline is January 10th 2014 and interviews will take place shortly afterwards. The preferred start date is flexible and will depend on the timeframe of the most qualified applicant. For further information, please see <http://www.uni-bielefeld.de/biologie/vhf/JH> or contact Joe Hoffman via email (joseph.hoffman@uni-bielefeld.de) with any informal inquiries.

For representative publications, please see: Hoffman *et al.* (2003) *Evolution*, 57: 1917–1930; Hoffman *et al.* (2007) *Nature*, 445: 912–914; and Hoffman *et al.* (2013) *BMC Genomics*, 14: 52.