

Investigating insertion and deletion in genomic inference --- A **post-doctoral fellowship** in molecular evolution is available working with Simon Whelan at Uppsala University, Sweden. The postdoc will join a project working on the development and application of phylogenetic methods for studying insertion and deletion both within protein families and on the genome scale. The project has two broad aims. The first is to apply probabilistic methods we've been developing for studying insertion and deletion rates from aligned or unaligned sets of sequences. We will use these estimated rates to study how patterns of insertion and deletion vary through the genome, both in genes and intergenic DNA, and how evolutionary forces affect these fundamental processes. The second aim of the project is to use this acquired knowledge of insertion and deletion to filter or rearrange multiple sequence alignments to better reflect the true homologous relationships between bases or residues. These approaches will be assessed through their ability to correctly estimate sequence divergence, natural selection and phylogeny using both empirical and simulation data sets. There is also the possibility for the fellow to develop their own research interests, providing they fit within the broad scope of the project outlined above. The fellowship will be located at the Evolutionary Biology department at the Evolutionary Biology Centre (EBC), Uppsala, Sweden. Uppsala is a leading centre for evolution and ecology research, with a large number of research groups in the subject area. The Evolutionary Biology department (<http://www.ebc.uu.se/Research/IEG/evbiol/?languageld=1>) is a diverse and multi-cultural department, with interests both computational- and laboratory-based research groups working on evolutionary genomics, speciation, population genetics and phylogenetics. The fellowship will be supported by the Carl Tryggers Stiftelse (CTS) and will be initially for one year, with the possibility of extending for an additional year. Details of this fellowship are available (in Swedish; Google Translate works reasonable well) at <http://www.carltryggersstiftelse.se/> and CTS make the final appointment of the fellow based on the conditions outlined there. The fellowship would be expected to start as soon as possible after the beginning of April'15. If you have any questions regarding the research project or anything else about the fellowship please contact me. Please send your application to [simon.whelan@ebc.uu.se](mailto:simon.whelan@ebc.uu.se) in a single pdf file containing the following information: \* Cover letter; \* CV, including publication record; \* A brief statement (max. 2 page) outlining your research interests, experience, and ambitions; and \* Contact information (name/address/phone/e-mail) for 2-3 referees. The recruitment will be ongoing until a suitable candidate is found, with the **first round of decisions being made around March 1st.**

Regards,  
Simon Whelan  
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