

### **PhD / Postdoc position on Evolutionary Cell Biology of the Mitotic Checkpoint.**

We are looking for a motivated PhD student or postdoc with experience in evolutionary bioinformatics, and with affinity for understanding the role of protein networks in biological processes. The project seeks to derive functional insights into chromosome segregation from the study of protein co-evolution at the residue, motif, domain and protein level within the mitotic checkpoint signaling pathway. Novel and improved co-evolution studies are now possible thanks to an avalanche of new complete genomes. The project will encompass development of new tools and continuous refinement of a pipeline to describe and detect co-evolution between proteins. Importantly this bioinformatic pipeline will be used for generating detailed predictions on function and evolution of mitotic checkpoint proteins. As such, the candidate is expected to develop extensive expertise on chromosome segregation in general, and the mitotic checkpoint in particular, to push the limits on these predictions.

### **Department information**

The lab of Geert Kops is part of the department of Medical Oncology and the department of Molecular Cancer Research at the UMC Utrecht. These departments are renowned for their fundamental and translational cancer research. The lab is located in the Stratenum building, that additionally houses various state-of-the-art facilities, including microscopy, proteomics, cell-screening, biochemistry and next-generation sequencing. The Kops lab consist of 6 PhD student, 3 postdocs and 4 technicians. The lab of Berend Snel is part of the Institute for Biodynamics and Biocomplexity of the Faculty of Science. This institute aims to achieve a systems-level understanding of complex dynamic processes and their evolution through close interaction between experimentation and computational biology. The Snel group currently consists of 4 PhD students and 1 postdoc working on the evolution and function of different biological systems.

### **How to apply**

Please send your CV, along with a cover letter outlining your specific qualifications for the preferred positions including contact information for at least two references to Dr. Berend Snel, B.Snel@uu.nl.