



Postdoc and PhD student positions in Bioinformatics, Metagenomics and the Human Microbiome

The Raes lab (VIB, University of Brussels (VUB), Belgium) is hiring 3 motivated postdocs / PhD students in the computational analysis of metagenomics data, with a particular emphasis on human-associated microbial communities in health and disease.

The last few years have seen a revolution in the functional and phylogenetic profiling of complete microbial communities through (next-generation) environmental shotgun sequencing (metagenomics). Recently, these approaches are being used to study the combined genetic material of microbial communities that live on and in the human body (the human microbiome), with important clinical applications in autoimmune disorders, infection and nutrition-related pathologies. The proposed research projects focus on bioinformatics tool development for comparative metagenomics of next-generation sequencing data (Raes et al. *Curr Opin Microbiol* 2007) as well as further development and/or application of multivariate analysis methods (Gianoulis, Raes et al *PNAS* 2008) towards clinical ecosystems biology of the human ecosystem (Raes and Bork *Nat Rev Microbiol* 2008). Methods are applied to public data, within the framework of existing collaborations (e.g. the MetaHIT consortium <http://www.metahit.eu>), and on sequencing projects initiated within the lab.

VIB is an exciting, interdisciplinary research institute with excellent facilities (e.g. proteomics, next-gen sequencing) and research groups in e.g. immunology, microbiology, genetics, molecular and cellular biology and translational research. The Raes lab is located on the campus of the University of Brussels, a vibrant, international city in the heart of Europe.

Requirements (Postdocs)

- PhD in bioinformatics, computational biology, biostatistics, (environmental) genomics, population genetics or equivalent
- Good programming skills (perl/python/ruby/etc, SQL, R), proficiency in Unix/Linux
- Strong background in statistics is a plus
- Good knowledge of (clinical) microbiology, biochemistry and/or microbial ecology is a plus
- Experience with (meta)genomics data and/or microarray data analysis, network inference/modeling is a plus

Requirements (PhD students)

- Masters in Bioinformatics, Computer Science, Bioengineering, (Molecular) Biology, Microbiology or equivalent
- Basic programming skills or strong motivation to learn
- Experience with (meta)genomics data and/or microarray data analysis is a plus

Interested candidates are encouraged to send their CV, along with a letter stating their interest and contact details of two references to jeroen.raes@gmail.com. Informal enquiries can also be addressed to the same email address. Further info on <http://www.vib.be/Research/EN/Research+Departments/Department+of+Molecular+and+Cellular+Interactions/Jeroen+Raes/>