Two PhD students are recruited to work in the BRAIN-BE project MICROBIAN at the Universities of Ghent and Liège, Belgium

**Project**

In the BelSPO funded MICROBIAN project (Microbiome diversity and function in the Sør Rondane Mountains, East Antarctica), coordinated by the Laboratory of Protistology and Aquatic Ecology, remote sensing analysis of soil crusts in a high latitude cold desert will be combined with field experiments and metagenomics studies to map their spatial distribution, community composition and metabolic capabilities. In addition, phylogenetic and physiological studies will be conducted on newly isolated bacteria and cyanobacteria, known to be present and highly abundant in the region from previous metagenomics analyses.

Your tasks will be organized to design two complementary theses:

1) Participation to field campaigns to the Antarctic. The first campaign is planned for Dec. 2017 – Jan. 2018 and includes sample collection for DNA and RNA analyses, mapping of soil crusts using drones and in situ measurements (i.a. PAM fluorometry), setting up and maintaining of field experiments.

2) Library preparation for amplicon and shotgun based metagenomics and subsequent bioinformatics data analysis.

3) Isolation, cultivation, phenotyping and genotyping of Polar microorganisms using a range of growth conditions.

4) Analysis and interpretation of remote sensing data and georeferencing and mapping of sampling locations

The candidates for these joint PhD’s will be registered in either the University of Ghent (at the Laboratory for Microbiology and the Laboratory of Protistology and Aquatic Ecology) or Liège (Centre for Protein Engineering), but several tasks will be done in a close collaboration between the respective research groups. For remote sensing analysis, they will collaborate with the Royal Belgian Institute of Natural Sciences. Therefore, regular research stays in the different partner laboratories are foreseen.

**Locations**

Ghent University, with its 38000 students and 8000 personnel, is one of the largest universities in Flanders (Belgium). Ghent University invests both in fundamental, high risk science as in applied research. The university is known for its scientific expertise in life sciences and medicine, materials
and agricultural science, veterinary medicine, psychology and history, and many more. Our top research is built on a solid base: as a result of a bottom-up research policy young researchers are given every opportunity to grow. Thanks to the excellent performance of its entire research community, for the last ten years Ghent University has been part of the Shanghai Ranking's top 100.

The University of Liege (ULg) with its more than 23000 students and 5500 staff members is fully part of the European and International higher education and research area. Offering a diversified educational offer in the French speaking part of Belgium, ULg has links with over 1000 institutions world-wide and is integrated in international academic and scientific networks. ULg also qualifies for ECTS, DS and HR Strategy for Researchers (HRS4R), labels and acknowledgement granted by the European Commission, which guarantees the quality of the training and administrative support given to exchange bachelors, master’s students, PhD-candidates and Post-doc researchers.

Profile of the candidates

You hold a Master’s degree in Sciences: Biochemistry and Biotechnology, Biology, or a discipline that is declared admissible by the selection committee, or an equivalent degree.

You preferably have practical experience in the isolation, cultivation, characterization and/or preservation of microbial strains.

You have a strong interest in bioinformatics, (multivariate) statistics and remote sensing analysis. A good knowledge of R and/or a scripting language is an asset.

You have a good physical and mental condition to participate to field campaigns. Having field experience from Polar or Alpine regions is an asset.

You have good communication skills and have a very good knowledge of written and spoken English. You like to carry out outreach activities

You combine being a team player with a strong sense of autonomy, responsibility and initiative.

How to apply

All applications must be received no later than 28/05/2017 at 23:59 (CET) at anja.hondekyn@ugent.be with the following documents attached as one file:

- application letter
- CV
- a copy of the required diploma and a transcript of your results
- names and coordinates of two reference persons (including the MSc thesis supervisor)

You will get a confirmation e-mail as soon as we have received your application.
What we can offer you

We offer 2 PhD scholarships of 3.5 years, given a positive evaluation after the first six months. Your appointment will start 1/07/2017 at the earliest. If you qualify for applying for an IWT or FRIA scholarship, we will ask you to try this possibility.

Your remuneration will be determined according to official salary scales for PhD students. More information about this can be found on the University of Ghent and Liège websites.

All staff members at the Universities of Ghent and Liège enjoy a number of benefits, such as a wide range of training and education opportunities, bicycle commuting reimbursement, etc. A complete overview of all our fringe benefits can be found on our website.

Attention: Late applications are not accepted. As both Universities maintain an equal opportunities and diversity policy, everyone is encouraged to apply for this position.

More information

For more information about this vacancy please contact Dr. Annick Wilmotte (awilmotte@ulg.ac.be, +32 04 3663387 ), Dr. Anne Willems (anne.willems@ugent.be, +32 09 264 5103) or Dr. Wim Vyverman (Wim.Vyverman@UGent.be, +32 09 264 8501).


http://lm.ugent.be/

www.PAE.UGent.be