

**INTEGRATING MULTI META-OMICS DATA TO ELUCIDATE THE
FUNCTIONING OF MICROBIAL CONSORTIA
MOLECULAR ECOLOGY/BIO-STATISTICS/BIO-INFORMATICS
RESEARCH ENGINEER / POST-DOC POSITION**

Laboratoire d'Ingénierie des Systèmes Biologiques et des Procédés
LISBP – INRA - CNRS - INSA
TOULOUSE, FRANCE.

12 months, starting on November 2016.

The Laboratoire d'Ingénierie des Systèmes Biologiques et des Procédés (LISBP) has an opening position for a research engineer/postdoctoral researcher to study lignocellulolytic microbial consortia applying a multi meta-omic approach, in the framework of the Systemics project.

The LISBP is French's leading laboratory in White/Industrial Biotechnology. LISBP belongs to the French National Center of Scientific Research (CNRS) and the National Institute of Agronomic Research (INRA); LISBP is hosted by the National Institute of Applied Sciences (INSA) in Toulouse, France.

The Systemics project is motivated by the urgent need of valorization of renewable carbon sources, essentially lignocellulosic biomass (LC), for a sustainable production of energy, fuels and chemicals.

In Nature, the recycling of LC is performed by complex **microbial consortia** present in soils and in the animal's intestinal tracts where they are responsible of plant organic matter recycling. Such ability of microbial consortia could be exploited to develop efficient LC bioconversion process. However, the LC deconstruction by microbial consortia is not completely understood which hampers the development of efficient LC bioconversion technologies.

In order to elucidate the functioning of lignocellulolytic microbial consortia, this project will adopt an **integrated approach combining multi-level omic approaches to correlate the genetic potential of microbial communities with its actual activity**.

The project will include the meta-omic (metagenomic, metatranscriptomic, and metaproteomic) study of microbiome of cow and termite gut. The objective is integrating the knowledge acquired from microbial communities using different meta-omic methods. The successful candidate will be involved of the acquisition of the meta-omic data (metatranscriptomics) and will be in charge of the statistical analysis of data generated in the project.

Qualifications include expertise in microbial molecular ecology, computational biology or a closely related field. Demonstrable **expertise in working with next generation sequencing data, a strong background on bio-statistics and bio-informatics** is desired. **Experience on R/Bioconductor** is needed. We are looking for an ambitious, enthusiastic team player and result-driven scientist.

The successful applicant will be supervised by S. Dejean (Mathematics Institute of Toulouse) and G. Hernandez Raquet (INRA-Toulouse) in collaboration with M. Mariadassou and S. Plancade (INRA-Paris).

The position is available for one year. Preferred start date is November 2016.

Salary depends on the experience and according to the French university grid of salary (net salary around 1840-2100€/month).

Applicants should include a cover letter, a curriculum vitae including a publication list, and contact information for two references.

CONTACT

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