

**Post-doctoral position Available in
System biology / Microbiome / Machine Learning
in INRAE/IRD/Sorbonne University (Paris, France)**

The -funded project “Homo.symbiosus” is looking for a highly motivated post doc with expertise in System Biology, Microbiome analysis and Machine Learning.

Context

One task of the project is to document the links existing between alterations of host features and their microbiome. Former observations support the concept that considering the symbiome profile, integrating microbiome and other data will open new potentials for the design of classification models and potentially permit the identification of biomarkers that are most relevant when considered in association.

Responsibilities

The applicant will take part in the ERC-funded project “Homo symbiosus” granted to **Pr. Joël Doré**, and will join the Mathematical and Computer Modelling of Complex Systems Laboratory (UMMISCO) at the Pitié-Salpêtrière / Sorbonne University Campus in the heart of Paris. He/she will work in close relationship with the Nutriomics Lab (INSERM) and the Micalis Institute (INRAE, Jouy en Josas). The successful applicant will be part of a multidisciplinary research team headed by Pr. Karine Clément (<http://nutriomique.org>), Pr. Jean-Daniel Zucker (<http://ummisco.fr>) and Pr. Joël Doré (Micalis Institute https://www.micalis.fr/micalis_eng/Micalis-Institute).

The applicant will interact with different scientists including bioinformaticians, microbiologists as well as with biologists and clinicians. The applicant will be in charge of one major task in the ERC project involving the analysis of human gut microbiota sequencing data as well as other types of Omics. Some of the questions raised include :

1. Identify specific traits of host-microbes symbiosis in groups of individuals as a function of their degree of severity in the natural course of their cardio-metabolic physiopathology.
2. Identify signatures of early dysbiosis and predictors of aggravation in contemporary microbiota.
3. Well-stratified phenotype subgroup (weight and variable evolution of metabolic syndrome-related traits in patients / prediction to response to treatments (bariatric surgeries/nutrition intervention))

Qualifications

We are seeking a candidate with a Ph.D., M.D., (or both) with training in bioinformatics or computational biology and with a good experience in analyzing shotgun metagenomics data. Knowledge in both Machine Learning and microbiology is desirable.

This position requires a highly motivated and curious young researcher, with excellent communication and collaborative skills as well as a strong publication track. We seek a candidate with strong computer programming and scripting skills. The successful candidate will be expected to work independently and take scientific initiatives while completing data analysis.

The applicant should be proficient in written and spoken English.

What to expect

We are offering to work in an innovative and highly stimulating scientific environment located in an attractive area of Paris. The successful candidate will have the opportunity to draft and publish several scientific manuscripts based on his/her results, and to significantly expand his/her expertise, network and track record. The initial employment contract will be for up to 2 years with the possibility to prolong while applying for a permanent position.

Qualified candidates should e-mail **before 9/07/2021** a cover letter, curriculum vitae, and a list of three references to **Jean-Daniel ZUCKER** at Jean-Daniel.Zucker@ird.fr with “ERC Post-Doc application” in the title of the e-mail.