Universitat Pompeu Fabra Barcelona | Master in Bioinformatics for Health Sciences

Master project 2020-2021

Personal Information

Supervisor	Chaysavanh Manichanh
Email	cmanicha@gmail.com
Institution	Vall d'Hebron Research Institute
Website	https://sites.google.com/site/manichanhlab/ and http://www.vhir.org/portal1/
Group	Microbiome Lab

Project

Computational genomics

Project Title:

Development of bioinformatics and statistical tools to integrate meta-omics data to decipher the human microbiome

Keywords:

Human Microbiome; Metagenomics; Metatranscriptomics; Metabolomics; Composition and functions

Summary:

Meta-omics approaches have been intensively used over the last 20 years to study the composition and functions of the human microbiome (the other Human Genome) in health and disease conditions. The aim of the present work is to develop and/or implement bioinformatics tools to analyze and integrate meta-omics data. • You will work in the dry-lab conducting bioinformatics and biostatistical research. You will be integrated in a young and collaborative environment: medical doctors, nutritionist, molecular biologists, bioinformaticians, statistician. • You will learn from your colleagues, and take responsibility, in writing your conclusions into academic papers, which eventually will be published in High Impact Journals. We want to help you build solid foundations on the research method, so you will be assisted by more experienced colleagues.

References:

https://sites.google.com/site/manichanhlab/our-publications

Expected skills::

Fluent in English (most of our team are foreigners, thus English is our language); Theoretical and practical knowledge of classical statistical inference and Machine Learning; Strong coding experience

Possibility of funding::

Yes

Possible continuity with PhD: :

Yes

Comments:

We are looking for a motivated student who is seeking to pursue his/her career in research. The candidate will be remunerated 1000 euros/month (gross salary) during his master internship and will be offered the possibility to apply for a PhD fellowship (INPhINIT “la Caixa”, FPU, AGAUR, VHIR...).