Master 2 Internship Position in Bioinformatics

Institute: IPMC – Institut de Pharmacologie Moléculaire et Cellulaire, Université Côte d'Azur, Valbonne, France
Laboratory: Epigenetics and Metabolism (Head Dr. Romain Barrès)
Duration: 6 months (January-June 2026)
Stipend: According to French Master 2 regulations (659.76 €/month)

We are offering a Master 2 internship opportunity in bioinformatics to work on a project at the crossroads of nutrition, epigenetics, and reproduction investigating how ultra-processed food (UPF) consumption affects male fertility and the health of future generations through epigenetic modifications in sperm.

Research Context
This project takes place within the international GECKO consortium (Gametic Epigenetics Consortium against Obesity), which explores how paternal nutrition shapes children's health outcomes.

While maternal health before conception is widely recognized as crucial, increasing evidence highlights that fathers' diet and lifestyle before conception also leave a lasting epigenetic footprint on their children.

Ultra-processed foods (UPFs) — rich in additives, low in nutritional value — now account for up to 60% of total caloric intake in some industrialized countries. UPFs are strongly associated with chronic diseases and have recently been linked to declining sperm quality in men.

In our preliminary human study, UPF consumption was associated with:

- Elevated levels of endocrine-disrupting compounds (EDCs) in blood,
- Hormonal imbalance,
- Reduced sperm quality

Internship Objectives
During the internship, you will:

- Analyze omics data from sperm samples collected from dietary intervention studies
- Investigate epigenetic signatures linked to UPF exposure
- Identify molecular pathways affected by UPF-derived pollutants
- Work closely with a multidisciplinary team

Candidate Profile
We are seeking a Master 2 student with expertise in bioinformatics, computational biology, or related fields, and with experience in omics data analysis (e.g., RNA-seq, methyl-seq), programming (R, Python), and data visualization. A strong interest in epigenetics, reproductive biology, and public health is essential. The ideal candidate is curious, collaborative, and well-organized, with critical thinking skills and the ability to work in an interdisciplinary, English-speaking team. A PhD opportunity may be offered to outstanding candidates.

How to Apply
Send your CV and a short motivation letter (1 page max) to: barres@ipmc.cnrs.fr
Subject: Bioinformatics Internship Application – Your Name

Applications are reviewed on a rolling basis. Early applications are encouraged.