**IMAS MASTER Academic Year 2023 - 2024**

**Proposal of M2 Internship**

**PROJECT TITLE AND SUMMARY: Exogenous microRNAs from dietary sources – stability during digestion and potential cellular uptake**

**The aim of the project is to study the source of exogenous microRNAs that can be found circulating in humans. Many authors have hypothesized that these may have a dietary, specifically plant, origin. Thus, the master student will work in an *in vitro* environment to isolate microRNAs from different food matrices, investigate their survival through digestion, as well as their potential uptake by the gut epithelia. If successful in these two steps, we would try to investigate the potential anti-inflammatory/antioxidant and other health-related properties of dietary microRNAs in different cell type representatives of gut epithelia, liver, fat tissue, and/or monocytes.**

**HOST UNIT: Nutri-Health Group, Luxembourg Institute of Health, Strassen, Luxembourg**

**MAIN ACTIVITIES:**

**Perform gastro-intestinal *in vitro* digestions**

**Purify RNA from different samples**

**Cell culture work (e.g. Caco-2 cell models)**

**RT-PCR**

**EXPECTED SKILLS:**

**Prior experience with cell culture, RNA purification, Q-PCR will be considered a strong asset**

**Good communication skills in English in written and oral**

**Motivated to work in international team**

**INDEMNISATION: ca. 700 Euros per month**

- about 600 € / month

**CONTACT:**

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Organization: Luxembourg Institute of Health

Location: Luxembourg

Duration: 6 months

Dates : flexible, starting from autumn 2024

Level : Master 2 preferred

Internship profile : Research