



MSc position at the universit  du Qu bec   Rimouski

The Dr. Soubaneh lab in the Department of Biological, Chemistry and Geography at the Universit  du Qu bec   Rimouski (UQAR) is looking for motivated student who is interested in environmental chemistry and Oceanography Sciences, to achieve a research project on **the characterization of microplastics and associated contaminants in the Estuary and Gulf of St. Lawrence (EGSL)**.

Global plastic production is estimated at 320 million tonnes per year (2015) with an annual growth rate of 3-4%. About 13 million tons of plastics, of different densities, reach each year into the marine environment. Microplastics (MPs), defined as particles between 1 and 5000 μm , come from the degradation of plastics which are subject to photodegradation and physico-chemical alteration processes in the medium. These fragments of PM can affect the biodiversity of ecosystems. MP induces ecotoxicological effects on living organisms with physical stress that add toxic stresses related to the associated (adsorbed) PM contaminants.

Depending on their nature and form, MPs accumulate organic pollutants such as polycyclic aromatic hydrocarbons (PAHs) or persistent pollutants (POPs). The concentration of contaminants associated with PM often exceeds by several orders of magnitude that measured in the surrounding body of water, increasing the toxic risk by ingestion for marine organisms.

The main objective of this project is to evaluate the organic contaminants that are adsorbed on the MPs available in the EGSL water column and to characterize the polymer type of PM. This research will focus on emerging contaminants such as perfluorinated compounds. The project proposes the acquisition of characterization techniques such as GC-MS / LC-MS, FTIR / RAMAN spectroscopy and scanning electron microscopy.

Requirements:

- BSc degree of Science
- Training in analytical chemistry is an advantage
- Good command of French
- Good writing skills and strong communication skills

Funding:

- A full competitive stipend will be offered.

The application file must include.

- Curriculum vitae
- Academic transcripts (B.Sc.)
- Motivation letter (maximum of one-page)
- Contact information of two references

Start date:

- **June 2019,**
- Selection of candidates will continue until the position is filled.
- Successful candidate will be required to enroll full-time in the UQAR Master's Program in Oceanography

Application

- To apply for this position or for more information, please contact:

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