**NA 2024-01 Internship - Nuclear and Isotopic Techniques to Assess Microplastics and Contaminants of Emerging Concern in the Marine Environment**

**Duration of Internship**

12 months

**Organizational Setting**

Department: Nuclear Sciences and Applications

Division: IAEA Marine Environment Laboratories

Section: Marine Environmental Studies Laboratory

**Main Purpose**

The main purpose of the internship is to conduct laboratory experiments related to on-going research and development work to assess the impact of priority Persistent Organic Pollutants (POPs) and emerging organic contaminants in the marine environmental, including seafood and microplastics. The intern will contribute to the development of analytical methods for the detection of Chemicals of Emerging Concern (CECs), and participate in studies to further understand the distribution and fate of these contaminants in the marine environment, particularly those linked to plastic pollution.

**Tasks / Key Results Expected**

* Assist in the development and validation of analytical methods for the detection and quantification of priority and emerging organic contaminants in marine environmental samples using liquid and gas chromatography-mass spectrometry.
* Assist in sample preparation and analysis of poly- and perfluorinated ‘forever’ chemicals, novel flame retardants, and other plasticizer contaminants in marine environmental samples, including seafood and microplastics.
* Participate in the preparation and production of organic reference materials to underpin the Stockholm Convention on POPs.

**Knowledge, Skills and Abilities**

* Analytical chemistry, Instrumental analytical techniques for small organic molecules (required)
* Mass spectrometry an asset
* Contaminants in environmental samples an asset
* Contaminants, biotoxins and residues in food and environment an asset
* Quality management an asset
* Computer programming & data analysis an asset

Expertise:

* Knowledge of gas and liquid chromatography

**Qualifications and Experience**

* University degree in chemistry, environmental sciences or a related scientific field with a demonstrated laboratory component in the field of organic analytical chemistry
* Knowledge in chromatographic separation methods, including gas and liquid chromatography.

**Internships**

The IAEA accepts a limited number of interns each year. The internships are awarded to persons studying towards a university degree or who have recently received a degree (see Internship web pages for further details).

The purpose of the programme is:

* To provide interns with the opportunity to gain practical work experience in line with their studies or interests, and expose them to the work of the IAEA and the United Nations as a whole;
* To benefit the IAEA's programmes through the assistance of qualified students specialized in various professional fields.
* The duration of an internship is normally not less than three months and not more than one year.

**Applicant Eligibility**

* Candidates must be a minimum of 20 years of age and have completed at least three years of full-time studies at a university or equivalent institution towards the completion of a first degree.
* Candidates may apply up to one year after the completion of a bachelor's, master's or doctorate degree.
* Candidates must not have previously participated in the IAEA's internship programme.
* Candidates must attach two signed letters of recommendation to their application.