**NA 2024-05 Internship – Nuclear and Isotopic Techniques to Assess Multi-Stressor Effects on Marine Organisms**

**Duration of Internship**

12 months

**Organizational Setting**

Department: Nuclear Sciences and Applications

Division: IAEA Marine Environment Laboratories

Section: Radioecology Laboratory

**Main Purpose**

The main purpose of the internship is to gain experience in the Radioecology Laboratory (REL) that conducts field and laboratory experiments focusing on the marine carbon cycle and ocean carbon sequestration. The internship will be carried out in the Radioecology Laboratory (REL) of the IAEA’s Marine Environment Laboratories in Monaco. The laboratory is engaged in applied research on the accumulation and transfer of contaminants in freshwater, coastal and marine ecosystems and associated biota, on experimental studies on ecotoxicology/ toxicology and on the assessment of the effects of multiple stressors on societally relevant fish and shellfish species in the context of seafood safety and/or ecosystem health.

**Tasks / Key Results Expected**

* Participate in the development of experimental work using radiotracer techniques aimed to assess, in the context of environmental and climate change (different pH, dissolved oxygen, and temperature conditions of seawater and in presence of other stressors such as marine toxins, metals or radionuclides), the impacts of multiple stressors on the key marine species.
* Develop and conduct experiments on the use of nuclear and isotopic techniques to advance our understanding of the Marine Carbon Cycle and associated microbial processes under present and changing environmental conditions.

**Knowledge, Skills and Abilities**

* Ability to work with marine organisms and aquaria.
* Good knowledge of Marine Biogeochemistry, Chemical Oceanography and Radioecology.
* Knowledge of gamma-ray spectrometry and Liquid Scintillation Counting (LSC) techniques is an asset.
* Experience with handling geochemical datasets is an asset.
* Strong analytical skills: ability to articulate, conceptualize, plan and execute ideas.

**Qualifications and Experience**

* University degree in Chemical Oceanography, Biogeochemistry or Marine Biology.
* Knowledge in: Marine Biology, Chemical Oceanography.
* Ability to conduct field and laboratory experiments using aquaria and marine organisms.

**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 National 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.