**Internship –** **Sterilization and Quality Control of sterile mosquitoes**

**Target Start of Internship**

Flexible, depending on donor’s planning

**Organizational Setting**

Department: Nuclear Sciences and Applications

Division: Joint FAO/IAEA Centre for Nuclear Techniques in Food and Agriculture

Section: Insect Pest Control

Unit: Insect Pest Control Section Laboratory / Human Disease Vectors in Seibersdorf

**Background:**

The IPCL under the mandate of the Joint FAO/IAEA Division develops nuclear techniques for the control of insect pests. The main focus is on the Sterile Insect Technique (SIT) applied within an integrated area-wide pest management programme. The SIT depends upon the mass rearing, reproductive sterilization and release of the target species. The SIT package for several mosquito species is under development at the IPCL and important progress has been made with methods for the rearing, irradiation and handling of sterile males. However, more studies on factors that effect mating competitiveness of mass-reared, sterile males, need to be completed to evaluate various strategies for controlling mosquito strains, such as *Aedes albopictus, Ae. aegypti* and *Anopheles arabiensis* a vector of several arboviruses, and malaria around the globe.

**Main Purpose**

The objective of the work is to assist in the gathering of data on factors that affect mating behaviour and propensity of mass-reared, sterile males of *Ae. albopictus, Ae. aegypti and/or Anopheles arabiensis* to assess the biological quality in semi-field conditions.

**Tasks / Key Results Expected**

* Assist with (mass) rearing the mosquitoes
* Assist in testing novel mass rearing equipment/tools
* Assist with irradiating male pupae or adults
* Assist with setting up mating crosses in large cages
* Assist with collecting data.
* Prepare samples for analysis

**Knowledge, Skills and Abilities**

* Biology/Entomology.
* Familiar with Windows and Microsoft Office.
* Basic knowledge of statistics.

**Qualifications and Experience**

* University degree in Biology, Environmental science or a related field.
* Past experience in a laboratory environment is an asset.
* Good written and spoken English essential; fluency in any other IAEA official language (Arabic, Chinese, French, Russian, Spanish) an asset.

**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.
* Good written and spoken English essential; fluency in any other IAEA official language (Arabic, Chinese, French, Russian, Spanish) an asset.
* Candidates must attach two signed letters of recommendation to their application.