**Internship - Plant-pathogen detection and diagnostics**

**Duration of Internship**

12 months

**Organizational Setting**

Department: Nuclear Sciences and Applications

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

Section: Plant Breeding and Genetics

Unit: Plant Breeding and Genetics Laboratory in Seibersdorf

**Main Purpose**

The main purpose of the internship is to is to provide research and development support towards research on plant pathogen detection and diagnostics in Plant Breeding and Genetics Laboratory, which develops/adapts technologies to assist Member Nations to develop improved crop varieties using mutation breeding and related *in vitro* and molecular technologies to enhance food security and climate-smart agriculture.

**Tasks / Key Results Expected**

* Assist in the development of ongoing research in molecular methods for plant pathogen detection.
* Assist in development of immunological and nucleic acid-based detection strategies, but also more advanced methods such high-throughput sequencing techniques.
* Assist in developing new nuclear and biosensor-based technologies for plant disease monitoring.

**Knowledge, Skills and Abilities**

* Biology/Genetics: Knowledge of Biology (Genetics, Molecular Biology) is required.
* Familiarity with fundamentals of plant protection is an asset.
* Knowledge of basic molecular biology tools desirable

**Qualifications and Experience**

* University degree in a biological science, agricultural science, or related field.
* Excellent 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, Spanish or Russian) an asset.
* Candidates must attach two signed letters of recommendation to their application.