

Job Description for Professional Posts

Reference:NA2024/40

Position and Grade:	Associate Animal Reproduction Officer, P2
Organizational Unit:	Animal Production and Health Laboratory Animal Production and Health Section Joint FAO/IAEA Centre for Nuclear Techniques in Food and Agriculture
Duty Station:	Seibersdorf
Type/Duration of Appointment:	FT – JPO, 1 year

Organizational Setting

The Department of Nuclear Sciences and Applications implements the IAEA's Major Programme 2, "Nuclear Techniques for Development and Environmental Protection". This Major Programme comprises individual programmes on food and agriculture, human health, water resources, environment and radiation technologies. These programmes are supported by laboratories in Seibersdorf, Monaco and Vienna. The Major Programme's objective is to enhance the capacity of Member States to meet basic human needs and to assess and manage the marine and terrestrial environments through the use of nuclear and isotopic techniques in sustainable development programmes.

The Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture assists Member States of the Food and Agriculture Organization of the United Nations (FAO) and the IAEA in using nuclear techniques and related technologies to improve food security, alleviate poverty and promote sustainable agriculture. The Joint Centre consists of five Sections, each with an associated laboratory (located in Seibersdorf, 45 km south-east of Vienna), in the areas of: animal production and health; plant breeding and genetics; insect pest control; soil and water management and crop nutrition; and food and environmental protection.

The Animal Production and Health Section and Laboratory assist Member States in improving livestock productivity through the efficient use of locally available feed resources, reproduction and breeding practices, and disease diagnostic tools and control measures.

Main Purpose

The Associate Animal Reproduction Officer will be co-responsible, under the supervision and guidance of the Unit Head and the technical officer(s) responsible for the activities and projects in animal production, for a study aimed at improving reproductive efficiency in livestock. The methods will include computer assisted sperm motion analysis, flow cytometry-based techniques, conventional microscopic techniques and ELISA/radioimmunoassay for hormone detection/estimation.

Role

As a member of the Animal Production and Health group s/he will be based at the Agriculture and Biotechnology Laboratory in Seibersdorf and will maintain regular contact with the technical staff at the Headquarters. S/he will be based on an established work plan, conduct research work on semen evaluation, identification and validation of biomarkers for early pregnancy diagnosis in cattle.

Partnerships

The Associate Animal Reproduction Officer will work under the partnerships already established within the UN system as well as with other international organisations and the scientific and commercial communities.

Functions / Key Results Expected

- In close collaboration with the team, establish and implement complete workflow on dilution and processing of bull semen for cryopreservation.
- Develop protocols for pre-freeze and post thaw evaluation of bull semen using conventional microscopy and advanced technologies including CASA (computer assisted semen analysis), flow cytometry, etc. Conduct research on various factors influencing the evaluation of livestock semen using CASA (e.g., semen extenders, temperature, loading chamber, etc.).
- Optimize the workflow on radioimmunoassay/ELISA for detection and estimation of progesterone and other pregnancy biomarkers (e.g., pregnancy associated glycoproteins, etc.) in blood and milk.
- Assist APHL team in identification and validation of novel biomarkers for early pregnancy diagnosis in cattle.
- Prepare a training module (protocols/SOPs) on production, evaluation and quality control of frozen semen for APHL's capacity building activities in member states.
- Assist with other activities of the APHL in relation to CRP and TC projects on animal reproduction/breeding as appropriate.

Competencies and Expertise (do not revise or edit)

Core Competencies		
Competence	Occupational Role	Behavioural Indicator
Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen and understand the perspective of others and proposes solutions.
Achieving Results	Individual Contributor	Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Division's programme. Evaluates his/her results realistically, drawing conclusions from lessons learned.
Teamwork	Individual Contributor	Actively contributes to achieving team results. Supports team decisions.
Planning and Organizing	Individual Contributor	Plans and organizes his/her own work in support of achieving the team or Section's priorities. Takes into account potential changes and proposes contingency plans.

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Functional Competencies		
Competence	Occupational Role	Behavioural Indicator
Analytical thinking	Associate	Gathers and analyses information, identifying critical relationships and patterns among data and proposes workable solutions.
Knowledge sharing and learning	Associate	Actively seeks opportunities to learn by formal and informal means; learns from others, adopting and sharing best practice.
Technical/scientific credibility	Associate	Acquires and applies new skills to remain up to date in his/her area of expertise. Reliably applies knowledge of basic technical/ scientific methods and concepts
Judgement/ decision making	Associate	Consults with supervisor/manager and makes decisions in full compliance with the Agency's regulations and rules.

Expertise	
Expertise	Description
Animal Production	Good understanding of animal reproduction/theriogenology/reproductive biotechnology.

Education, Experience and Language Skills

- University degree in biological, agricultural, veterinary or animal sciences with post-graduate training up to PhD level or equivalent in animal reproduction/theriogenology/reproductive biotechnology.
- Minimum two years of post-qualifying experience and working knowledge on collection, processing, evaluation and quality control of semen for artificial insemination programs.
- Competence in computer applications including word processing, spreadsheets, databases, presentation graphics and statistical packages.
- Excellent oral and written command of English. Knowledge of other official IAEA languages (Arabic, Chinese, French, Russian and Spanish) is an asset.

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