

Radiotherapy Medical Physicist (P4) - (2022/0720 (004721))

Organization: NAHU-Dosimetry and Medical Radiation Physics Section Primary Location: Austria-Vienna-Vienna-IAEA Headquarters Job Posting: 2023-02-14, 5:18:28 PM Closing Date: 2023-03-14, 11:59:00 PM Duration in Months: 36 Contract Type: Fixed Term - Regular Probation Period: 1 Year Full Competitive Recruitment: Yes



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 Division of Human Health is organized into four Sections whose objectives are to enhance the capabilities of Member States to address needs related to the prevention, diagnosis and treatment of health problems through the development and application of nuclear techniques within a framework of quality assurance.

The Dosimetry and Medical Radiation Physics Section (DMRP) is responsible for quality assurance and metrology in radiation medicine. The Section works closely with clinical colleagues of the Applied Radiation Biology and Radiotherapy Section and the Nuclear Medicine and Diagnostic Imaging Section. Specifically, DMRP provides technical support in medical physics to ensure the safe and effective applications of nuclear technology in radiotherapy, diagnostic radiology and nuclear medicine. It operates the Dosimetry Laboratory located at the Agency's Laboratories, Seibersdorf, and provides a dosimetry calibration service and a dosimetry auditing and verification service for Member States.

Main Purpose

As a member of a team led by the Section Head, the Radiotherapy Medical Physicist enhances the capability of Member States to establish, develop and implement new techniques, methodologies and training materials in the physical and technical aspects of radiotherapy, particularly for programmes in quality assurance and dosimetry auditing.

Role

The Radiotherapy Medical Physicist is a team member for the project on developments in the physical and technical aspects of radiotherapy, a technical expert supporting a project on quality auditing in dosimetry, a trainer, and a knowledgeable adviser in medical physics for radiotherapy and the adaptation of new technologies of relevance to low and middle income countries.

Functions / Key Results Expected

- Participate in the project on developments in medical physics for radiotherapy. This includes: designing substantive components of the programme; developing and implementing coordinated research projects; organizing and leading technical meetings, seminars and courses; delivering technical advice; supporting quality assurance activities in radiotherapy for novel radiotherapy treatment modalities; developing new dosimetry techniques and proposing the best approaches to their transfer to Member States; contributing to editorial activities for publications in medical radiation physics; developing training material and keeping up to date with developments in the field.
- Support implementation of the project on quality auditing in dosimetry by analysing data from the participating hospitals and the network of secondary standards dosimetry laboratories (SSDLs), reporting results to the users and resolving discrepancies.
- Support implementation of comprehensive audits in radiotherapy by development, review and update of auditing methodologies and review of expert mission reports.



• Act as technical officer for the IAEA's technical cooperation projects in the field of medical physics in radiotherapy by planning, implementing and evaluating projects, including providing advice on the use of experts, the placing of fellows, the purchasing of equipment and the organization of meetings and training courses.

Competencies and Expertise

Core Competencies

Name	Definition		
Planning and Organizing	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.		
Communication	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen to and understand the perspectives of others and proposes solutions.		
Achieving Results	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	Actively contributes to achieving team results. Supports team decisions.		

Functional Competencies

Name	Definition
Commitment to continuous process improvement	Plans and executes activities in the context of quality and risk management and identifies opportunities for process, system and structural improvement, as well as improving current practices. Analyses processes and procedures, and proposes improvements.
Partnership building	Identifies and builds partnerships. Develops and maintains long lasting partnerships to strengthen relationships. Delivers programmatic outputs and acquires resources in support of Agency goals.
Technical/scientific credibility	Ensures that work is in compliance with internationally accepted professional standards and scientific methods. Provides scientifically/technically accepted information that is credible and reliable.

Required Expertise

Function	Name	Expertise Description
Medical Physics	Brachytherapy Physics	Thorough knowledge of brachytherapy modalities; Ability to develop internationally harmonized guidance in brachytherapy physics.
Dosimetry	Dosimetry	Thorough knowledge of international dosimetry codes of practice; Ability to analyse the current dosimetry practice and propose topics which need standardization and guidance.
Medical Physics	Education and Training in Medical Radiation Physics	Thorough knowledge of external beam radiotherapy modalities; Ability to develop internationally harmonized guidance in external beam radiotherapy physics.
Medical Physics	Radiotherapy Physics	Ability to develop educational and clinical training material and propose ways to assess and follow-up on learning outcomes.

Qualifications, Experience and Language skills

• Advanced degree (PhD/Doctorate) in medical radiation physics or radiation dosimetry.



- Minimum of seven years of clinical experience in radiotherapy physics.
- Experience in radiotherapy beam calibration and clinical dosimetry.
- Experience in clinical brachytherapy physics.
- Experience and practical skills in the physical and technical aspects of quality assurance in radiotherapy.
- Experience in education and training in medical physics.
- Demonstrated experience in project design, monitoring and implementation.
- Familiarity with and understanding of the specific needs and conditions of low and middle income countries in the field of radiotherapy physics.
- Excellent oral and written command of English. Knowledge of other official IAEA languages (Arabic, Chinese, French, Russian and Spanish) is an asset.

Remuneration

The IAEA offers an attractive remuneration package including a tax-free annual net base salary starting at **US \$75602** (subject to mandatory deductions for pension contributions and health insurance), a variable <u>post</u> <u>adjustment</u> which currently amounts to **US \$ 24797***, dependency benefits, <u>rental subsidy</u>, <u>education</u> <u>grant</u>, <u>relocation</u> and <u>repatriation expenses</u>; 6 weeks' annual vacation, <u>home leave</u>, <u>pension plan</u> and <u>health</u> <u>insurance</u>

Applications from qualified women and candidates from developing countries are encouraged

Applicants should be aware that IAEA staff members are international civil servants and may not accept instructions from any other authority. The IAEA is committed to applying the highest ethical standards in carrying out its mandate. As part of the United Nations common system, the IAEA subscribes to the following core ethical standards (or values): <u>Integrity</u>, <u>Professionalism</u> and <u>Respect for diversity</u>. Staff members may be assigned to any location. The IAEA retains the discretion not to make any appointment to this vacancy, to make an appointment at a lower grade or with a different contract type, or to make an appointment with a modified job description or for shorter duration than indicated above. Testing may be part of the recruitment process



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