



(mock job posting)

Job Title: Physicist

Initial Date: 08/01/2016

Location: Flint, MI area

Status: FT

Department/Unit: Physics

Reviewed By: CEO

Reports To: Lead Physicist

Revised:

**Summary:**

ProTom International, a manufacturer of proton radiotherapy equipment, seeks a physicist who will participate in efforts concerning Technical Commissioning and Validation of a Proton Beam Scanning System. This is a junior, entry level position in medical physics. Candidate will work within a team of highly experienced individuals in various aspects of radiation therapy technology, including accelerator experts, electrical engineers, software engineers, and medical physicists in continuous quality and operational improvements for ProTom's **Radiance 330**<sup>®</sup> proton therapy system.

**Principal Responsibilities:**

- Assist in all validation and technical commissioning activities of scanning beam treatment delivery system at **Radiance 330** installation client sites
- Participate in carrying out Acceptance Testing of all Radiance 330 subsystems, including, Gantry, Imaging, Patient Positioning, Scanning Nozzle and Synchrotron, in working with the clinical physicists at the client sites
- Assist in developing quality assurance, testing and validation procedures under the guidance of senior physics personnel for clinical implementation and technical operation of the overall **Radiance 330** system and its subsystems
- Collaborates with clients to understand their treatment planning requirements, treatment delivery requirements and assist in seamless integration with the **Radiance 330** system
- Participates in efforts related establishment of standards and documentation as it relates to regulatory requirements
- Collaborates with internal and external technical teams on all aspects of software engineering, testing and commissioning
- Acquires strong understanding of pencil-beam scanning technology for treatment planning

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**Qualifications:**

The candidate must have MS in Physics, Ph.D. is preferred, with experimental physics background and with (1) a medical physics background or (2) a strong interest in medical applications of physics.

The candidate should possess experience in more than one of the areas below:

- Radiation physics
- Experimental techniques, with experience in dosimetry measurements preferred
- Data analysis
- Electronics

**Skills/Abilities/Competencies:**

- Strong communication, verbal and written, and analytical skills
- Demonstrable collaboration skills, working with co-workers, outside vendors/agencies and clients
- Competency in analytical techniques, preferably with experience in MATLAB programming

**Working Conditions:**

Work performed mainly in and around an accelerator vault, with no natural light

Systems to be worked on include accelerator, beam line, gantries, patient positioners, imaging systems, beam delivery nozzles and associated subsystems

Approximately 25 % travel required; traditionally concentrated at client site, post install

Working flexible hours and hours in excess of 40 hrs per week required, particularly during install, testing and commissioning at client site

**Fiscal Responsibilities:**

Responsible for using ProTom resources in an efficient manner and identifying opportunities for savings; participates in operating and capital budget preparation at direction of Lead Physicist.

**Training Requirement**

- Must complete the in-house Quality and Regulatory Overview Training

*Applicants should send a cover letter and a resume to Andrey Tarasov (atarasov@jlab.org) by Tuesday, June 7th at 9 am, and indicate whether they wish to share their application with other workshop participants.*