Advanced Oncotherapy is an innovative technology business focused on delivering a proton-based radiotherapy system using technology originally developed and tested at the world-renowned CERN facility in Switzerland.

Proton beam therapy is likely to play a crucial role in the affordable treatment of cancer in the future. Advanced Oncotherapy’s system is based on a linear accelerator (‘LIGHT’) technology that is superior to traditional cyclotron/synchrotron accelerators and significantly less expensive to implement than its competitors. The company acquired the technology through the acquisition of A.D.A.M. SA, a CERN spin-off company, in 2013.

The first LIGHT system is being installed and commissioned at our test site at STFC Daresbury, in the north of England, prior to shipping to our customer sites.

The post holder will be in charge of the installation and commissioning of the beam instrumentation foreseen in the LIGHT proton therapy accelerator at Daresbury STFC (UK). As a beam instrumentation expert, he/she will have to coordinate or participate in all the needed tests to operationalize the instruments in due time. The post holder will have an active role during the beam commissioning in the control room, by performing measurements, developing analysis tools and debugging the accelerator. Once commissioning is over, he/she will be involved in the continuous operation and maintenance of the machine in the control room. The role will involve travel in Europe and work on shifts.

Key Responsibilities

- Installation and supervision of all the critical Beam Instrumentation;
- Commissioning of the Beam Diagnostics devices and verification of their functionalities through the LIGHT accelerator control system;
- Beam commissioning in the control room, acting as instrumentation expert reference person during the daily operations.
- Write or give feedback on all work instruction and test procedures needed to install and bring to operation the beam instrumentation;
- Verify and report beam instrumentation functionalities; provide valuable feedback for future upgrades;
- Perform on-site inspection/diagnosis and immediate fix-solutions on the installed BD devices,
- Develop data analysis tools during control room operations needed to facilitate and speed up the beam commissioning and regular operation monitoring;
- Participate into the development of the remaining Beam Diagnostics devices for the LIGHT accelerator.

Requirements

- Masters (or PhD) degree in Physics or Electronic Engineering;
- At least 3 years work experience in beam instrumentation for particle accelerators;
- A strong technical knowledge of laboratory instruments and measurement techniques;
- Solid background in electronics and analog signal acquisition and processing;
- Good knowledge of RF linear accelerator principles and beam dynamics concepts;
- Experience in development of Python/Matlab scripts for data analysis;
- Have a well organised and methodical approach to work;
- Have experience of cross-functional working and demonstrate an effective collaborative way of working;
- Possess excellent interpersonal and communication skills (oral and written) with the ability to communicate effectively with both internal and external stakeholders;
- Highly motivated, proactive and enthusiastic, with the ability to work on own initiative;
- Languages: fluent English, other European languages advantageous.
Beam Diagnostics Physicist / Engineer

What we offer

▪ A friendly, multi-cultural environment working in a multi-disciplinary team.
▪ A wide range of tasks and opportunities for learning new skills and techniques.
▪ An initial placement at our new site on the STFC Daresbury campus with the opportunity to travel to other installation sites in the UK and Europe after c18 months.
▪ A competitive salary, 28 days holiday, private healthcare, 7.5% contribution to pension

Applications to

The HR Director, Bridget Biggar
Bridget.biggar@avo-adam.com by 4 April 2020

Please submit a CV and cover letter together with the names of 2 referees, and copies of qualifications/relevant training.