Postdoctoral Training Fellow in MLC tracking for MR-guided radiotherapy

Closing Date **11 April 2020**
Location **Sutton, Greater London, United Kingdom**
Contract **3 years, full time (35 hours per week), fixed-term contract**
Salary range **£32,200 - £39,350**

The Joint Department of Physics conducts and translates research and development of medical physics into clinical practice. The department is a collaboration of academic and clinical staff from The Institute of Cancer Research and The Royal Marsden NHS Foundation Trust. Within the department we initiate the next generation of radiotherapy treatments by combining the most recent developments in cancer biology, cancer therapeutics and medical physics in a truly interdisciplinary approach.

For a new research program "Adaptive Data-driven Radiation Oncology" funded by CRUK we are looking for three enthusiastic Post-Doctoral training fellows to start as soon as possible.

The strong trend towards the implementation of Stereotactic Body Radiotherapy (SBRT) and hypo-fractionated treatments for most common localized cancer types makes the control of geometrical uncertainties a central issue for the safe and successful practice of modern radiotherapy (RT). This geometrical accuracy becomes even more important for reliable targeting of smaller biological tumour sub-volumes in which substantially increased radiation boost doses are delivered.

The successful candidates will use advances in physics, engineering and computer science to develop innovative dose delivery and patient imaging technologies aiming to provide the highest quality of precision RT treatments.

We are seeking a highly motivated and creative post-doctoral training fellow who is focused on a career in research to join our team. The post-doctoral training fellow will contribute to the clinical implementation of intelligent MLC tracking on the first UK's clinical MR-Linac as part of a larger program of work funded by a CRUK program grant. The successful candidate will work in an interdisciplinary team of medical physicists, computer scientists and clinicians in the Joint Department of Physics at the Institute of Cancer Research and the Royal Marsden NHS Foundation Trust and be part of a team of post-doctoral research fellows who will work on multiple aspects of online MR-guided radiotherapy. She/He will develop a framework for MLC tracking on the MR Linac which will integrated novel MR sequences, innovative motion modelling and ultra-fast online plan adaption with the aim to demonstrate the benefit of this cutting edge technology for patients in collaboration with the manufacture.

The Radiotherapy Physics Modelling Team is primarily focused on the development and application of novel technology to further radiotherapy treatments. This includes novel treatment planning techniques, the development of new optimisation algorithms and using modern computer hardware to enable real-time online plan optimisation.

The post holder will drive the work forward within a multi-disciplinary team of computer scientists, medical physicists and clinicians in the Joint Department of Physics at the Institute of Cancer Research and the Royal Marsden NHS Foundation Trust. Applicants will hold a PhD in Physics, Engineering or another relevant field and ideally have experience in radiotherapy physics, optimisation algorithms and/or MR imaging.

Please contact Professor Uwe Oelfke (uwe.oelfke@icr.ac.uk), if you would like to discuss the job opportunity in more detail. To apply, please upload your CV and complete an online application form,

including the supporting statement and the names and contact details of two referees using the ICR's e-recruitment system, job ref 1020:

https://icr.tal.net/vx/mobile-0/appcentre-ext/brand-0/candidate/so/pm/1/pl/1/opp/1020-Postdoctoral-Training-Fellow-in-MLC-tracking-for-MR-guided-radiotherapy/en-GB