Position title: Radiotherapy Physics Researcher

Location: Smallfield, Surrey, UK

Reports to: Dr Tracy Underwood, Senior Physicist (Research)

About Leo Cancer Care…

Leo Cancer Care are a small company with big ambitions, we have adopted a "design thinking" approach to re-imagine and simplify radiotherapy. We have developed a flexible and comfortable robotic positioning system that rotates an upright patient through a fixed treatment beam – enabling 'gantryless radiotherapy', for proton, ion, photon or electron treatment beams. We are developing complementary upright CT scanners and our own linear accelerator.
We anticipate that our streamlined technology will lead to (1) reduced radiotherapy equipment costs, both upfront and for maintenance (2) easier upgrades of beam delivery equipment, facilitating technological developments such as FLASH (3) simpler machine Quality Assurance (QA) processes & therefore lower expertise barriers (4) substantial reductions in shielded treatment room volume (5) improved patient throughput due to upright positioning. We also believe that upright treatments have the potential to improve the patient experience and bring clinical benefit - improved tumour control or reduced side-effects - to subsets of radiotherapy patients.
We do what we do to find a better way: to improve accessibility in cancer care globally, and to make cancer treatment a more human experience for all.

About the job…

Overview and Responsibilities

We are building a translational research team to answer a variety of research questions related to upright radiotherapy. Key questions include: (1) how do we keep upright patients comfortable and still? (2) which subsets of radiotherapy patients are most likely to benefit from upright radiotherapy? (3) how do we streamline upright radiotherapy workflows, especially quality assurance? (4) how do we use image registration to transfer information from supine PET and MR scans to upright CT? (5) how do we add live MR guidance to upright radiotherapy? Depending on your expertise and interests, you will design and perform research aligned to a subset of these questions. You will share your findings with our team and the wider radiotherapy community via presentations and publications. You will also work collaboratively to support company activities related to innovation strategy and regulatory testing. This is a permanent role, initially supported by Dr Tracy Underwood's 5 year UKRI Future Leaders Fellowship (a UK government research grant). As part of the Fellowship, Dr Underwood's team will develop translational research collaborations with two NHS Trusts and 3 UK based Universities, as well as international research partners.

Education and experience:

You will have:

- a Ph.D. or M.S. degree in Physics, Medical Physics, Computer Science, or a related area, with research experience in radiation therapy
- Or equivalent experience gained through employment

Required skills:

- A broad working knowledge of radiation therapy, especially its associated physics and medical imaging
- Critical thinking
- The ability to collaborate effectively within a multi-disciplinary team
- The ability to work independently
- Strong written and presentation skills

Desired skills

You may have:

- Substantial radiotherapy research experience (e.g. through a PhD and potentially postdoctoral positions)
- Experience of the clinical radiotherapy environment
- Experience of the medical devices industry

Inclusivity and benefits

Leo Cancer Care is proudly an equal opportunities employer: we want all of our employees to feel at home with us and we want to provide them with opportunities to develop their full potential (e.g. through training). We particularly encourage applications from minorities, women, LGBTQ+ candidates, and individuals with disabilities. Company benefits include: private health insurance, a private pension scheme and annual bonuses. We anticipate that the base salary for this role will be £40-50K, but there may be scope to go above this level for a candidate with exceptional experience. The role also comes with opportunities to develop external partnerships. In today's world we understand the importance of working remotely and flexibly in order to maintain a work life balance. As regular access to our equipment in Smallfield will be required, we anticipate that this role will be hybrid. Part time work would be considered.

Application process

Informal enquiries can be directed to hr@leocancercare.com. Applications will be assessed on a rolling basis: interested candidates should send a CV and a brief cover letter describing: (1) your scientific background, (2) prior contributions relevant to this role, (3) your motivation for applying.