
PROFESSOR & DIRECTOR: Centre for AI in Oncology

Candidate information

Dear Applicant

The ICR and The Royal Marsden invite applications for a distinguished academic appointment at the level of Professor and Group Leader, who will simultaneously serve as Founding Director of a new Centre for AI in Oncology. This is a rare and consequential opportunity to define and lead a world-class centre at the intersection of artificial intelligence and cancer science, embedded within two of the most renowned cancer research and treatment institutions globally.

The Opportunity

The appointee will be responsible for establishing a fully integrated collaborative Centre for AI in Oncology, leading our AI vision for research, to support and enhance the research of ICR-RM scientists in AI Oncology. The membership of the AI Oncology centre will be drawn from the current faculty at ICR and RM. The appointee will play a leading role in identifying and recruiting new faculty members with interest in AI Oncology, working with the Chief Executive of the ICR and relevant Heads of Division at the ICR.

You will hold personal scientific leadership over an independent research group while simultaneously providing strategic direction across a broad portfolio of institutional AI and data science activities.

Scientific Context

AI and data science are increasingly integral to the full spectrum of cancer research at the ICR and Royal Marsden — spanning structural biology, multi-omics, clinical and medical imaging, and translational medicine. Applications already in development include automated image analysis, multi-modal biological and clinical data integration, and predictive modelling to support discovery, early diagnosis, and precision oncology.

Building on a jointly developed ICR–Royal Marsden data science strategy, the Centre will serve as the institutional engine for realising the full potential of AI-enabled cancer research. The Director will ensure that the Centre maximises the scientific value of an exceptional clinical and research data asset, and that its outputs directly inform patient care and cancer outcomes.

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The Candidate

You will be a scientist of international standing whose career demonstrates sustained, field-defining contributions to AI and data science in oncology or a closely related biomedical domain. You will bring a commanding track record of major grant success, high-impact publication, and the ability to build and inspire research teams.

Equally, you will possess the strategic acumen and collaborative instinct to operate as an institutional leader — bridging scientific ambition with operational delivery.

Job title:	Group Leader and Director Centre for AI in Oncology
Division:	TBC
Grade:	Career Faculty
Hours / duration:	Full time (35 hours per week), Monday to Friday.
Responsible to:	Professor Kristian Helin, CEO
Location:	Sutton, London

Duties and Responsibilities

Centre Director:

1	Define and lead the Centre's overarching scientific strategy, ensuring it advances the global frontier of AI in oncology across discovery, translational, clinical and population science research.
2	Establish and lead your own high-impact, externally funded research group, with dedicated start-up funding and access to significant infrastructure investment.
3	Provide authoritative scientific and strategic input to the ICR and Royal Marsden's Chief Information Officers and senior leadership, shaping decisions on data infrastructure, technology adoption, and research capabilities.

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Job description (continued)

4	Cultivate a collaborative research culture across institutions, disciplines, and career stages — fostering partnerships with clinical scientists, computational biologists, engineers, epidemiologists and clinicians.
5	Represent the Centre as a national and international spokesperson, engaging with funding bodies, policy makers, industry partners, and the global AI oncology community.
6	Provide senior leadership over organisational structures, governance frameworks, and digital infrastructure that enable data science-driven research at scale.
7	Contribute to organisational level grant applications for example the NIHR Biomedical Research Centre and CRUK Convergence Science Centre applications.

Group Leader

1	To pursue an independent research programme aligned with the ICR-RM research strategy.
2	To submit applications and obtain grant funding for posts in the Group either independently or in collaboration.
3	Supervise, train, inform and motivate members of their Group, including postdoctoral scientists, scientific officers and PhD students.
4	To prepare the results of the Group's work for presentation as publication in learned journals and at national and international conferences.

Institutional Responsibilities

1	To manage budgets for the team
2	To be responsible for ensuring compliance with ICR and national regulations on safety and ethics that are relevant to the research programme.

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3	To be responsible to the Head of Division with respect to: (i) ICR corporate responsibility to the public (ii) ICR safety policy, rules and regulations (iii) Returns required by external organisations (iv) Disciplinary matters.
4	To undertake such academic, administrative and managerial duties that could be reasonably expected of a Group Leader by the Head of Division and Chief Executive.
5	All staff must ensure that they familiarise themselves with and adhere to any ICR policies that are relevant to their work and that all personal and sensitive personal data is treated with the utmost confidentiality and in line with the General Data Protection Regulations.

Main Terms and Conditions

The post-holder will be employed by The Institute of Cancer Research, with an honorary contract with The Royal Marsden NHS Foundation Trust where appropriate. The post will be at Career Faculty level in the ICR.

Salary

The post-holder's salary will be determined by the CEO of the ICR.

Visiting the Department

Applicants are invited and encouraged to visit the Institute of Cancer Research informally by arrangement. The ICR are not empowered to pay travelling expenses or a subsistence allowance in connection with any such visits.

For an informal discussion and/or to arrange an informal visit please contact Professor Kristian Helin via cerian.jones@icr.ac.uk.

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Person specification

Education and Knowledge

PhD (or equivalent) in a relevant discipline.	Essential
Established track record in AI methods and their application to cancer research. With deep experience in developing, training and applying AI techniques, such as foundation models and deep learning, to complex biological and clinical datasets.	Essential
Internationally recognised research profile in AI and/or data science with relevance to cancer or biomedical research.	Essential
Strong understanding of research governance, data ethics, and responsible use of AI in healthcare and research.	Essential

Skills

Capability to contribute to institutional strategy, research prioritisation and the development of enabling structures for data science-driven research.	Essential
Ability to lead, coordinate and deliver research projects independently.	Essential
Excellent communication skills with the ability to represent the ICR with a high level of credibility to key external stakeholders.	Essential
Writing, presenting and explaining technical and/ or scientific reports to a wide range of scientific and lay audiences.	Essential
Ability to obtain and maintain peer reviewed research funding	Essential

Experience

Proven track record of high-quality research outputs (peer-reviewed publications, impactful reports, tools or software).	Essential
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Person specification (continued)

Experience collaborating within multidisciplinary teams (e.g., clinicians, epidemiologists, statisticians, data engineers).	Essential
Experience supervising or mentoring junior researchers.	Essential
Track record in securing research funding, e.g. grants from research councils (or equivalent) or charities.	Essential
Experience of AI tools and methodologies and how to apply them in a clinical context.	Essential
Experience of working across institutions.	Essential

General

Willingness to supervise postgraduate students for higher degrees	Essential
Highly motivated with a strong desire for excellence	Essential
Enthusiasm for effective collaboration	Essential
Good interpersonal and communication skills	Essential
Ability to build, support, lead and manage a team	Essential

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About our organisation

About our organisation We are one of the world's most influential cancer research institutes with an outstanding record of achievement dating back more than 100 years. We are world leaders in identifying cancer genes, discovering cancer drugs and developing precision radiotherapy. Together with our hospital partner The Royal Marsden, we are rated in the top four centres for cancer research and treatment worldwide. As well as being a world-class institute, we are a college of the University of London. We came second in the league table of university research quality compiled from the Research Excellence Framework (REF 2021). We have charitable status and rely on support from partner organisations, charities, donors and the general public. We have more than 1000 staff and postgraduate students across three sites – in Chelsea and Sutton. funders, supporters and partnerships help drive forward our work.

Benefits

We offer a fantastic working environment, great opportunities for career development and the chance to make a real difference to defeat cancer. We aim to recruit and develop the best – the most outstanding scientists and clinicians, and the most talented professional and administrative staff.

The annual leave entitlement for full time employees is 28 days per annum on joining. This will increase by a further day after two years' and five years' service.

Staff membership to the Universities Superannuation Scheme (USS) is available. The USS is a defined benefit scheme and provides a highly competitive pension scheme with robust benefits. The rate of contributions is determined by USS and details of the costs and benefits of this scheme can be found on their website. If staff are transferring from the NHS, they can opt to remain members of the NHS Pension Scheme.

We offer a range of family friendly benefits such as flexible working, a parents' group, and a maternity mentoring scheme. Other great benefits include interest free loans for discounted season tickets for travel and bicycle purchases, access to the NHS discounts website, a free and confidential Employee Assistance Programme which offers a range of well-being, financial and legal advice services, two staff restaurants, and access to a gym and sporting facilities at our Sutton site.

Our mission
is to make the
discoveries that
defeat cancer.

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Our values

The ICR has a highly skilled and committed workforce, with a wide variety of roles, each requiring different skills. But whether you work as a researcher, or work as part of our corporate team, your work and behaviour is underpinned by these six values. They are what bring us together as one team – as 'One ICR'.



Pursuing excellence

We aspire to excellence in everything we do, and aim to be leaders in our field.



Acting with Integrity

We promote an open and honest environment that gives credit and acknowledges mistakes, so that our actions stand up to scrutiny.



Valuing all our people

We value the contribution of all our people, help them reach their full potential, and treat everyone with kindness and respect.



Working together

We collaborate with colleagues and partners to bring together different skills, resources and perspectives.



Leading innovation

We do things differently in ways that no one else has done before, and share the expertise and learning we gain.



Making a difference

We all play our part, doing a little bit more, a little bit better, to help improve the lives of people with cancer.



Our values set out how each of us at the ICR, works together to meet our mission – to make the discoveries that defeat cancer. They summarise our desired behaviours, attitudes and culture – how we value one another and how we take pride in the work we do, to deliver impact for people with cancer and their loved ones.”

Professor Kristian Helin
Chief Executive