



Higher Scientific Officer Cell Biology / Immuno- Oncology Drug Discovery Candidate Information

May 2022

The Institute of Cancer Research

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 top in the league table of university research quality compiled from the Research Excellence Framework (REF 2014). 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.

About our unit

The Cancer Therapeutics Unit is a major component of the Division of Cancer Therapeutics and is a multidisciplinary 'bench to bedside' centre, comprising approximately 160 scientists dedicated to the discovery and development of novel therapeutics for the treatment of cancer. We implement innovative drug discovery technologies, discover novel mechanism-based drugs, and develop these as rapidly as possible from the laboratory through to hypothesis-testing early clinical trials. These activities are carried out in highly focused multidisciplinary project teams analogous to those in a biotechnology company, with patient benefit as the primary driver. We publish our work extensively and have a large network of collaborations with academia, biotechnology companies, and the pharmaceutical industry.

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About our team

You will be joining a high performing team with team science at the core of our values. This position will also offer training in new techniques and support will be available for attending training courses and appropriate academic meetings. Our team is based on our Sutton site, in state of the art laboratories, in the newly opened Centre for Cancer Drug Discovery.

We work in close collaboration with our colleagues in chemistry, structural biology, DMPK and computational chemistry to design and test novel cancer therapeutics. Our current research efforts are largely focussed on the design and application of small molecules in immuno-oncology, which seeks to harness the body's own immune system to destroy cancer cells. The current project is exploring ways to modulate MHC-I antigen presentation in order to re-engage the immune system within the tumour microenvironment.

Skills that are desirable but not essential as training will be given include:

- Experience in immune functional assays (e.g. ELISA, ELISpot or cell-mediated cytotoxicity assays)
- Experience with *in vivo* models of tumour biology
- Ability to perform multi-colour flow cytometry
- Experience in molecular biology (cloning and preparing plasmids)

We encourage applications from women and ethnic minorities.

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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

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Job description

Department / division: Division of Cancer Therapeutics, Cancer Research UK, Cancer Therapeutics Unit (CTU)

Pay grade / staff group: Higher Scientific Officer/ Scientific Professional 5

Hours / duration: Full time (35 hours per week), Monday to Friday. Fixed term contract initially 2 years in the first instance with prospect of extension.

Reports to: Dr Gary Newton (Team Leader)

Main purpose of the job: The design and execution of a broad range of functional cellular assays geared towards the discovery of more effective, safer cancer therapeutics

Duties and responsibilities:

Key Roles and Responsibilities

Undertake mammalian tissue culture, including culture of immune cells
Design and perform assays to monitor antigen presentation
Design and perform <i>in vivo</i> and <i>ex vivo</i> functional immune assays
Design and execute experiments using transient- and/or lentiviral-based expression systems to modulate the activity/expression of target proteins
Multi-colour flow cytometry to interrogate the immune-spectrum within the tumour microenvironment
Work in a flexible but organised manner to meet objectives/deadlines and able to sequentially work on different projects
Develop skills to analyse and interpret project data to enable the informed design of new functional assays
Work effectively as part of multi-disciplinary team including other biologists, medicinal and synthetic chemists, structural biologists, analytical and DMPK scientists

Other Roles and Responsibilities

Maintain accurate experimental records
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Work and communicate effectively with other members of the Project Team, Unit and external collaborators
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Take an interest in the general literature
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Prepare and present results at internal or external meetings
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Prepare data for patent applications and publications

General

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
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Any other duties that are consistent with the nature and grade of the post that may be required.
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To work in accordance with the ICR's Values.
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To promote a safe, healthy and fair environment for people to work, where bullying and harassment will not be tolerated.
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Person specification

Education and Knowledge

PhD in biological/biochemical sciences or equivalent experience	Essential
First degree in a biological or physical science	Essential
Knowledge of Cell Biology	Essential
Knowledge of Immunology	Desirable
Knowledge of Cancer Biology	Desirable

Skills

Proficiency in cell culture techniques (passaging, transfection, siRNA, overexpression, stable line generation etc.)	Essential
A strong commitment to successfully learn new research methodologies	Essential
Ability to plan, organise & prioritise a busy workload	Essential
Proven ability to work to deadlines	Essential
Effective presentation skills with ability to recognise and highlight key information	Essential
Effective collaboration skills and ability to work productively with others	Essential
Enthusiastic and self-motivated with a strong desire to achieve scientific excellence	Essential
Excellent record keeping	Essential
Computer literate (Word, PowerPoint, Excel, ideally also illustrator)	Essential
Ability to perform basic analysis on immunopeptidomics, RNAseq and/or TCRseq data	Desirable

Experience

Extensive experience in mammalian cell culture	Essential
Extensive experience in cell biology and biochemistry techniques	Essential
Experience in multi-colour flow cytometry/FACS analysis	Desirable
Experience in assay development (drug discovery)	Desirable
Experience in molecular biology (e.g. cloning and preparing plasmids)	Desirable

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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 2 years' and 5 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.

Further information

You may contact Dr Esther Arwert for further information by emailing esther.arwert@icr.ac.uk. This job description is a reflection of the current position and is subject to review and alteration in detail and emphasis in the light of future changes or development.