ICR The Institute of Cancer Research

Postdoctoral Training Fellow

Innate Immune Responses to Genome Instability

November 2024

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 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.

Genome Stability and Innate Immunity Group, Division of Cancer Biology, Chelsea, London

The Genome Stability and Innate Immunity Group, led by Dr Christian Zierhut, seeks to understand how innate immune responses are activated during genotoxic stress, and to establish how these collaborate with other signalling to regulate cell fate during genotoxic stress. Ultimately, we aim to develop rule sets for how cell fates are decided during genotoxic stress, which we hope will support cancer therapy. We employ a multi-disciplinary approach that combines state of the art cell biology, microscopy, genetic screening, biochemistry and structural biology techniques. More information can be found at https://www.zierhutlab.org/.

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Our team is embedded within the Cancer Biology Division at the ICR's Chester Beatty Laboratories in Chelsea, London. We have a highly supportive and interactive research environment, and state of the art facilities for cell biology, molecular biology, next-generation sequencing and structural biology. We also closely interact with other divisions at the ICR, including Breast Cancer Research, Radiotherapy and Imaging, and Structural Biology. The great variety of disciplines at the ICR will ensure that the successful candidate will be exposed to fantastic research and seminars from all types of backgrounds.

The position

We seek to fill a Cancer Research UK-funded postdoctoral research scientist position, aimed at developing an exciting research project to determine how innate immune signalling is activated by genome instability, and how it can be exploited for cancer therapy. Several projects are currently available. Depending on the project, technical experience with automated microscopy and image analysis, genomic analysis, or murine models of cancer are essential. Experience in innate immunity and/or genome instability research is desirable. The successful candidate will have intellectual freedom in developing this project, with support from the Group Leader, whilst working as part of a collaborative and multi-disciplinary team. Although the position is currently funded till 31 March 2027, we expect a possible extension by up to 6 more months.

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

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Job description

Department / division:	Division of Cancer Biology
Pay grade / staff group:	Postdoctoral Tranining Fellow
Hours / duration:	Full time (35 hours per week), Monday to Friday. Fixed term contract until 31 March 2027
Reports to:	Christian Zierhut (Group Leader)
Main purpose of the job:	Develop a detailed insight into the innate immune responses promoted by genome instability

Duties and responsibilities:

Specific

To co-design and carry out a research plan to understand genome instability driven innate immune responses in cancer.
To work semi-independently in order to develop this plan.
To interact with the Group Leader and regularly update on progress and issues.
To keep accurate and accessible records of experiments and data.
To take an active interest and stay up-to-date on the relevant literature.
To present at lab meetings, conferences and journal clubs.
To work as part of a collaborative team, and support colleagues within the group.
To draft and co-write manuscripts resulting from the project.
To train and support junior team members.
To carry out an allocated part of shared lab duties.
To support the maintenance of laboratory equipment.
To work independently but seek out support when needed.

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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
Any other duties that are consistent with the nature and grade of the post that may be required.
To work in accordance with the ICR's Values.
To promote a safe, healthy and fair environment for people to work, where bullying and harassment will not be tolerated.
This job description is a reflection of the present position and is subject to review and alteration in detail and emphasis in the light of future changes or development.

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Person specification

Education and Knowledge

PhD in molecular biology/cell biology/biochemistry or similar	Essential
Extensive background and knowledge of genome instability, cell cycle control and innate immunity, or at least some of these	Essential
Experience in analysis of microscopy data	Essential
Strong background in first-author publications (*manuscripts under review are also considered*)	Desirable
Experience in analysis of genomic data	Desirable

Skills

Ability to design, carry out and interpret experiments.	Essential
Ability to write scientific manuscripts.	Essential
Excellent communication and presentation skills.	Essential
Excellent computer skills.	Essential
Ability to integrate multiple techniques.	Essential
Ability to work as part of a team.	Essential
Ability to multi-task, to perform under tight deadlines without compromising results, and to deal with as well as learn from failed experiments.	Essential
Ability to plan and prioritise work.	Essential
Track record of applying to and obtaining fellowships.	Desirable
Extensive experience in basic molecular biology techniques (recombinant DNA, sub-cloning, Western blots etc.)	Essential
Extensive experience in cell biology techniques of mammalian cells (tissue culture, transfection methods, microscopy).	Essential
Experience in the analysis of genomic data (depending on the project).	Desirable
Experience with murine models of cancer (depending on the project).	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 Christian Zierhut for further information by emailing Christian.zierhut@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.