

Postdoctoral Training Fellow: Target Validation and Genome Stability Group

Candidate Information

Job description

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December 2025

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| Pay grade / staff group: | Postdoctoral Training Fellow |
| Hours / duration: | Full time (35 hours per week), Monday to Friday. 3-year fixed term contract. |
| Reports to: | Dr Joanna Loizou, Group Leader, Target Validation and Genome Stability Group |

About the role

We have an opportunity for a talented and motivated Postdoctoral Training Fellow to join the Target Validation and Genome Stability Group within the Division of Breast Cancer Research, based at the ICR in Sutton.

We are seeking a Postdoctoral Training Fellow to investigate the development of new drug targets in breast cancer by expanding our understanding of target biology.

The project will develop targeted therapeutic strategies that exploit cancer-specific vulnerabilities, giving rise to synthetic lethality (Schrempf et al., 2022). This will entail the use of genetic and pharmacologic approaches to understand the therapeutic relevance of specific targets. The candidate will exploit emerging technology and protein degradation tools for robust target validation experiments. Models used will include cell lines, PDO and PDX.

Applicants must have a PhD in cell biology, cancer biology, genetics, or similar. Experience in modern cell and molecular biology techniques is essential. Experience with -omics level profiling and handling of large datasets is desired. The post would suit a candidate with strong CRISPR functional genomics, high throughput cell culture and/or DDR experience. Excellent organisational and communication skills are also required.

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This position is offered on a fixed term 3 year contract. Starting salary is in the range of £35,844* to £45,534 per annum inclusive based on previous postdoctoral experience.

**£35,844 for thesis submitted, awaiting PhD award*

In addition to annual performance related pay awards, the salary scales are reviewed annually to consider cost of living increases.

Annual leave entitlement is 28 days per annum. There is an additional entitlement to 8 bank/public holidays and 3 ICR-set privilege days.

About the team

The Target Validation and Genome Stability Group, led by Joanna Loizou, focuses on identifying vulnerabilities in the DNA damage response to generate pre-clinical information that can lead to the identification of novel targets for drug discovery programmes.

About the Division of Breast Cancer Research

The Breast Cancer Now Toby Robins Research Centre at the ICR is the first centre in the UK entirely devoted to breast cancer research. Our goal is to advance research into the causes, diagnosis and treatment of breast cancer. It is located in state-of-the-art laboratory space, with excellent core facilities and is funded through a long term renewable programme grant from Breast Cancer Now. The Centre is directed by Clinician Scientist Professor Andrew Tutt. Professor Chris Lord is Deputy Director of the Centre. Our Breast Cancer Research Centre was recently awarded the 2022 AACR Team Science award with our breast cancer clinical research partners in the ICR's CTSU clinical trial unit and Royal Marsden Hospital.

Main purpose of the job

The postholder will investigate the development of new drug targets in breast cancer by expanding our understanding of target biology.

Further information

You may contact Joanna Loizou for further information by emailing joanna.loizou@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.

Our mission
is to make the
discoveries that
defeat cancer.

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Duties and responsibilities

Key duties

Design, execute, and analyse experiments to characterise novel cancer targets

Use RNA-seq, proteomics, hypothesis-based experiments to understand pathways, molecular mechanisms involved in cellular responses

Use genetic (CRISPR) and pharmacologic tools to investigate cellular responses

Contribute to the preparation of reports on the work carried out by the laboratory and produce work suitable for high-quality, high-impact publications

Maintain an up-to-date knowledge of innovations and propose new techniques for implementation where appropriate

Collaborate with colleagues from other areas and disciplines, as necessary

Read scientific literature to keep abreast of new findings appropriate to the work

Workforce Agreement for Postdoctoral Training Fellows

The ICR has a workforce agreement stating that Postdoctoral Training Fellows can only be employed for up to 7 years as PDTF at the ICR, providing total postdoctoral experience (including previous employment at this level elsewhere) does not exceed 10 years.

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.

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Person specification

Education and Knowledge

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| PhD in cell biology, cancer biology or a closely related field. | Essential* |
| Knowledge and experience in lab-based cell biology research | Essential |
| Knowledge of cancer biology | Essential |

* as a minimum requirement candidates must have submitted their thesis by the start date of their employment and awarded their PhD within the six-month probationary period

Skills

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| Ability to work independently and to demonstrate initiative in planning and designing experiments | Essential |
| Proven ability to organise and prioritise workload to work effectively and meet deadlines | Essential |
| Willingness and ability to rapidly learn new techniques | Essential |
| Proficient use of data analysis tools and familiarity with publicly available datasets and analysis sites | Essential |
| Good communication skills and the ability to interact effectively with other team members | Essential |
| Good observation skills, attention to detail and ability to keep appropriate records | Essential |

Experience

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| At least three years' experience working in lab-based cell biology (which can include PhD) | Essential |
| Experience with mammalian cell culture, including transfection, transduction, and measurement of proliferation, viability, cell death | Essential |
| Experience using genetic tools such as RNAi and CRISPR/Cas9 to modulate gene expression; follow-up by analysis of mRNA, protein levels | Essential |
| Experience generating resistant cell lines, barcoding cell populations, single cell analysis, examining cell state | Desirable |

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About our organisation

The Institute of Cancer Research, London, is one of the world's most influential cancer research institutions with an outstanding track record of achievement dating back more than 100 years. Our mission is to make the discoveries that defeat cancer.

As well as being one of the UK's leading higher education institutions in research quality and impact, the ICR is consistently ranked as one of the world's most successful for industry collaboration. As a member institution of the University of London, we also provide postgraduate higher education of international distinction.

We are also a charity and rely on the support of partner organisations, funders, donors and the general public.

[Read more](#) to find out about our history, culture, and achievements, and how our funders, supporters and partnerships help drive our work.

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'.



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

