ICR The Institute of Cancer Research

Job description

Postdoctoral Training Fellow in Hypoxia and Leukaemia Biology

Candidate Information

January 2026

Department / division:	**Haemato-Oncology Group** **Centre for *In Vivo* Modelling** **Division of Cancer Biology**
Pay grade / staff group:	Postdoctoral Training Fellow
Hours / duration:	Full time (35 hours per week)
Reports to:	Professor Kamil R Kranc, Chair of Haemato-Oncology Director of Centre for *In Vivo* Modelling

Context

Dear Applicant,

The Haemato-Oncology Group, led by Professor Kamil R Kranc, is seeking to appoint a highly motivated Postdoctoral Training Fellow to pursue therapeutic targeting of the cellular oxygen-sensing system in order to eliminate leukaemic stem cells in acute myeloid leukaemia (AML) and develop effective treatments for this devastating disease.

The Institute of Cancer Research (ICR) is a world-leading cancer research organisation focused on making the discoveries that defeat cancer. Research groups within the Division of Cancer Biology at the ICR aim to understand molecular mechanisms driving cancer and to translate these advances into personalised cancer treatments. The Haemato-Oncology Group focuses on selective targeting leukaemic stem cells, which initiate and drive AML progression and relapse and are highly resistant to currently available conventional therapies.

We have identified inhibition of hypoxia-inducible factor (HIF) hydroxylases (PHDs) as a promising non-toxic strategy to target leukaemic stem cells by modulating HIF signalling (Lawson/Holt-Martyn *et al.*, *Nature Cancer*, 2024; Vukovic *et al.*, *Journal of Experimental Medicine*, 2015; Vukovic *et al.*, *Blood*, 2016). The postholder will investigate how inactivation of PHDs and related enzymes impacts AML biology, identify AML subtypes sensitive to these interventions, evaluate novel small-molecule inhibitors *in vivo*, and discover synthetic lethal vulnerabilities and resistance mechanisms to inform optimal combination strategies and overcome therapeutic resistance.

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This multidisciplinary research project is funded by a newly awarded Cancer Research UK Programme Grant and will be conducted in collaboration with Professor Christopher Schofield (University of Oxford), Sir Peter Ratcliffe (University of Oxford/The Francis Crick Institute), and Dr David Taussig (ICR/Royal Marsden Hospital), providing the postholder with a unique opportunity to work within an outstanding collaborative team of internationally recognised experts.

The postholder will work closely with the UK's leading haemato-oncology, hypoxia, and chemical biology teams to rigorously validate hypoxia-regulated mechanisms in AML and normal haematopoiesis. This collaborative expertise will enable the discovery and validation of hypoxia-driven pathways and therapeutic vulnerabilities using biochemistry, functional genomics and drug discovery approaches in advanced mouse genetic models and patient-derived xenografts, ensuring findings are robustly assessed in physiologically relevant *in vivo* settings with strong translational potential.

Professor Kamil R Kranc
Group Leader and Director, Centre for *In Vivo* Modelling
(kamil.kranc@icr.ac.uk)

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Main purpose of the job

Developing novel methods to treat leukaemia by investigating hypoxia biology in both normal haematopoiesis and blood malignancies.

Further information

Please contact Professor Kamil R Kranc for further information by emailing kamil.kranc@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.

Duties and responsibilities

Key duties

To develop and lead research investigating the impact of oxygen-sensing enzymes on leukaemia and normal haematopoiesis, under the supervision of Professor Kamil R Kranc.
To realise the objectives of the Haemato-Oncology Group, Division of Cancer Biology and The Institute of Cancer Research. Contribute to the organisation, maintenance and general activities of the Haemato-Oncology Group.
Co-supervise other more junior group members.
Provide day-to-day support to the Haemato-Oncology Group as a key team player.
Share expertise in molecular biology and hypoxia biology approaches with the Haemato-Oncology Group and contribute to student supervision.
Develop and initiate new projects within the Haemato-Oncology Group.
Collaborate with the Group members and the wider ICR community on a variety of projects.
To support Professor Kamil R Kranc in his duties as Group Leader, including contributing to the preparation of research grant applications and manuscripts.

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.

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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 Regulation.
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.

Person specification

Education and Knowledge

PhD in hypoxia biology, biochemistry, cell biology, molecular biology, stem cell biology, oncology or chemical biology.	Essential

Skills

Excellent verbal and written communication skills. Essential for communicating research, training others and drafting of reports or publications.	Essential
Analytical skills: attention to detail, critical thinking and an investigative mindset.	Essential
Excellent record keeping	Essential
Good organisational skills with the ability to plan, prioritise and work flexibly. The ability to independently manage multiple complex projects simultaneously is essential.	Essential
Knowledge of good practice in a laboratory setting and best practice in health and safety.	Essential
Computer literate, ability to use MS Office, web-based tools, databases and research software (e.g. GraphPad Prism, FlowJo).	Essential
An approachable and friendly manner with the mindset to maintain a friendly, collaborative and collegiate research culture.	Essential
A team player, able to work closely and collaboratively with others.	Essential
Laboratory skills: protein biochemistry, mouse genetics, flow cytometry, molecular biology, omics approaches, data analysis and statistics.	Essential

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Experience

Significant experience in hypoxia biology/biochemistry, stem cell biology, and cancer research.	Essential
Expertise in mass spectrometry-based assays to define protein-protein interactomes.	Desirable
An excellent publication record with a track record of research excellence.	Essential
Previous postdoctoral experience in hypoxia and/or leukaemia biology.	Desirable

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