

Job description

Postdoctoral Training Fellow, Functional Proteomics

Candidate Information

September 2024

Department / division:	Division of Cancer Biology, Functional Proteomics Team
Pay grade / staff group:	Postdoctoral Training Fellow
Hours / duration:	Full time (35 hours per week), Monday to Friday (Fixed term contract for 3 years)
Reports to:	Group Leader (Prof. Jyoti Choudhary)

Context

The Post-doctoral Training Fellow will be part of the Functional Proteomics group. The objective of this post is to apply innovative quantitative proteomics workflows for the characterization of protein interactions and post-translational modifications of chromatin factors at high sequence resolution. The post holder will undertake end-to-end analysis of a variety of samples. The main analysis pipelines will include affinity purification, crosslinking, chromatography fractionation and enrichment of post-translational modifications followed by mass spectrometry analysis using tribrid systems and statistical and bioinformatics analysis. The post holder is expected to work independently quickly and to communicate results to the group. The post holder will be required to represent the group in local or international conferences with oral or poster presentations. Training and supervision of new starters and collaborators to analysis pipelines is also among the important duties of the post holder. A strong candidate would be able to design, develop and publish methods addressing current needs in proteomics, helping the group to remain up to date and operating at world class standards.

Our mission is to make the discoveries that defeat cancer.

Candidate Information

Main purpose of the job

The objective of this post is to apply innovative quantitative proteomics workflows for the characterization of protein interactions and post-translational modifications.

Further information

You may contact Jyoti Choudhary for further information by emailing <u>Jyoti.choudhary@icr.ac.uk</u>. This job description reflects 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

Use appropriate techniques to carry out the objectives of the post, including:

- Expertise in quantitative mass spectrometry with label and label free approaches
- Sound biological knowledge of chromatin regulation
- Skills in protein biochemistry techniques
- Ability to optimise and implement robust proteomics workflows to study diverse protein attributes such as post translational modifications, interactions and turnover
- Trouble shooting methods and instrumentation to achieve best analytical performance
- Analysis of large datasets ability to distil data revealing biological information and present them
- Working knowledge of statistical methods for data analysis, knowledge of selecting appropriate methods and applying them as well as experimental designing
- Applied experience in mass spectrometry computational tools for spectrum assignment, quantitation and preparation of data for biological interrogation
- Ability to plan and organise work to meet deadlines and handle multiple tasks
- Lead and manage projects
- Publish high quality research
- Contribute to grant applications
- Provide expertise in Proteomics
- Maintain specialised laboratory equipment and mass spectrometry instruments

Candidate Information

General duties

Maintain accurate records in laboratory notebooks

Initiate laboratory procedures to ensure smooth running of experimental work and with others to ensure that housekeeping tasks are performed on a regular basis

Initiate purchase of consumable items and minor equipment within budgetary limits

Work in a flexible but organised manner to meet objectives/deadlines

Work and communicate effectively with other members of the Project Team

Prepare reports of results for oral or written presentations at internal and external meetings and for publication in scientific journals or patents

To work independently on a defined project and to consult when appropriate

To contribute to the supervision and training of junior staff

Take an interest in the general literature

Comply with the ICR's guidelines, including safe working practices

Ensure that work conforms to the requirements of COSHH, Local Rules for Health and Safety, Home Office regulations and other Codes of Practice as required by the ICR Safety Policy

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.

Candidate Information

Person specification

Education and Knowledge

PhD in biochemistry or chemistry	Е
Sound knowledge of biological mass spectrometry	Е
Additional qualification/training in chemical proteomics	D

Experience

Solid expertise in quantitative mass spectrometry using label, label free and targeted approaches for proteomics	Е
Expertise in biochemical and protein purification techniques	E
Expertise in computational analysis of omic data-ability to perform in statistics, data integration and bioinformatics	
Experience in cell biology, biochemistry and molecular biology (cloning, tissue culture etc)	D
Familiarity with coding is R or scripting	D
Publication of own research	Е

Skills

Good collaborative and communication skills	
Expertise in sample prep, data capture and analysis of large-scale proteomics	Е
Ability to design and implement experiments using state-of-the-art techniques	Е
Good data presentation and visualisation	Е
Proficient use of PCs (e.g., Microsoft Word, Excel and PowerPoint) and databases	Е

General

Enthusiasm to work in an interdisciplinary environment towards the goal of developing improved cancer therapies.	Е
Highly motivated and strong desire for excellence	Е
Can prioritise work to meet deadlines	Е
Attention to detail and accuracy	Е
Ability to work independently and as part of a team	Е
Provide domain expertise, maintain up to date knowledge of the literature	

Candidate Information



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 <u>values</u>. 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











