Job description

Postdoctoral Training Fellow Structural Biology of RNA processing

November 2024

Structural Biology
Postdoctoral Training Fellow
Full-time (35 hours per week), Monday to Friday / Fixed term contract until September 2026
Prof Vlad Pena

Context

A post-doctoral position is available in the laboratory of Prof. Vlad Pena within the Division of Structural Biology. We are seeking a motivated molecular biologist with a strong interest in the structural biology of RNA-protein complexes.

The primary objective of this project is to elucidate the structural mechanisms underlying key regulatory events in RNA splicing. The successful candidate will focus on reconstituting spliceosomes involved in this process and determining their structures using cryo-electron microscopy (cryo-EM). Comprehensive training in specialized techniques will be provided.

Our laboratory offers regular access to cutting-edge structural biology facilities, including recombinant protein expression, purification systems, mammalian cell bioreactors, advanced electron microscopy (Glacios and Titan Krios), high-performance GPU computing clusters, mass spectrometry, and both preparative and analytical biochemistry tools. More detailed information about our research, can be found on our webpage.

Applicants should hold a PhD (or equivalent) in structural biology and demonstrate strong expertise in the biochemistry of macromolecular complexes. While experience in RNA biology, the structural study of RNA-

protein complexes, and cryo-EM is advantageous, we encourage applications from all talented scientists with a passion for this field.

The Division of Structural Biology is located at the ICR site in the picturesque Chelsea district of London, offering a vibrant cultural atmosphere and excellent opportunities for both personal and professional growth.

The position is offered as a Fixed Term Contract, initially running until 30 September 2026. The starting salary will range from £41,607 to £43,137 per annum, depending on prior postdoctoral experience. Candidates who have completed their viva but not yet been awarded their PhD will start at a salary of £35,844. In addition to annual performance-based salary increases, the pay scale is reviewed annually to account for cost of living adjustments. The role includes an annual leave entitlement of 28 days, supplemented by 8 bank/public holidays and 3 ICR-designated privilege days.

Informal enquiries are encouraged and can be directed to Prof. Vlad Pena at vlad.pena@icr.ac.uk. Please note that this contact is for inquiries only; applications should not be sent to this email address.

To apply, please submit an online application through the ICR Careers site. Be sure to include your CV and a supporting statement that addresses the person specification with relevant examples, provides a summary of your research experience, and includes the names and contact details of at least two referees.

Duties and responsibilities

Key duties

To work semi-independently to develop the research plan

To interact with the team leader and regularly update on progress and issues

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

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.

Person specification

Education and Knowledge

PhD in structural biology, biochemistry, molecular biology or similar	Essential
Background in Structural Biology	Essential
Background in RNA biology	Desirable
Knowledge in single-particle cryo-EM	Desirable

Experience

Cloning and mutagenesis	Essential
Purification and biochemical analysis of protein complexes	Essential
Recombinant expression of proteins in baculovirus	Essential
Ability to analyze and interpret experimental data, troubleshoot experiments and optimize protocols	Essential
Written and verbal communication skills, project management and teamwork	Essential
Purification and biochemical analysis of protein-RNA complexes	Desirable
Computation for cryo-EM reconstruction and model building	Desirable

Skills

Carry out and interpret experiments	Essential
Co-write scientific manuscripts	Essential
Excellent communication and presentation skills	Essential
Ability to plan and prioritize work	Essential
Willingness to learn new skills	Essential
Ability to work as part of a team	Essential



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.

<u>Read more</u> 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











