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# Postdoctoral Training Fellow

## Temporal resolution of cell phenotypic dynamics in children's solid cancer

# Candidate Information

November 2022

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### 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 top in the league table of university research quality compiled from the Research Excellence Framework (REF 2014).

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.

**Preclinical Modelling of Paediatric Cancer Evolution | Centre for Paediatric Oncology Experimental Medicine| Centre for Cancer Evolution: Molecular Pathology Division**

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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

<b>Department / division:</b>	Molecular Pathology
<b>Pay grade / staff group:</b>	Postdoctoral Training Fellow
<b>Hours / duration:</b>	Full time (35 hours per week), Monday to Friday. Fixed term contract for 3 years
<b>Reports to:</b>	Alejandra Bruna, CDF
<b>Main purpose of the job:</b>	Preclinical analysis of clonal dynamics at single-cell resolution

### Duties and responsibilities:

- To co-design and carry out a program of work aimed at elucidating how tumoural clones interact with each other and with the tumour microenvironment
- To lead the optimization of high-throughput single-cell and imaging analysis for the analysis of the tumoural ecosystem
- To work semi-independently on the mathematical and computational analysis required to complete the research plan
- To interact with the team leader, with other team members, and with other institute's colleagues regularly to optimally coordinate project development
- To keep up with relevant scientific literature to ensure application of up-to-date methods of analysis
- To maintain a detailed and easily accessible record of all experiments, data and analysis
- To support junior team members
- To write drafts of manuscripts for the publication of the results arising from the project
- To present your work at national and internationally recognized research institutions and symposia.

### 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 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

BSc or equivalent in qualification in relevant biological subject	Desirable
PhD in bioinformatics, computational biology or similar	Essential*
Strong background in cancer biology	Desirable
Knowledge of molecular biology	Desirable

#### Skills

Demonstrated skills in R programming	Essential
Strong knowledge of statistical methods of high-throughput data analysis	Essential
Skills in single cell data analysis	Essential
Strong organizational and communication skills	Essential
Ability to work independently and collaboratively in a multidisciplinary environment	Essential
Knowledge of Python programming	Desirable

#### Experience

Experience in single cell analysis methodologies	Essential
Experience in analysis of barcoded samples	Essential
Experience in sample preparation for single cell methodologies	Desirable
Familiarity with flow cytometry techniques and experimental approaches	Desirable
Experience of cancer evolution analysis	Desirable
Experience in multiplexed spatial tissue imaging analysis	Desirable

***\*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.***

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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 Alejandra Bruna for further information by emailing [Alejandra.Bruna@icr.ac.uk](mailto:Alejandra.Bruna@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.