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# Post-doctoral Research Fellow Candidate Information

November 2024

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## The Institute of Cancer Research

### 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.

We have more than 1000 staff and postgraduate students across three sites – in Chelsea and Sutton.

### Cancer Biomarker Team, Clinical Studies Division

Professor Johann de Bono is a world leader in anticancer drug development, biomarker studies, and prostate cancer care. His team conducts biomarker-driven clinical and translational research to accelerate the development of novel cancer therapies and improve understanding of cancer biology, drug sensitivity and resistance. His team has driven major advances in cancer care through early and late stage trials, and he has led pivotal phase III trials of several prostate cancer drugs including abiraterone, cabazitaxel, enzalutamide, lutetium PSMA and olaparib. His team consists of basic, translational and clinical scientists, and is embedded in a vibrant world-class research environment.

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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.

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### Job description

**Department / division:** Division of Clinical Studies, Cancer Biomarker Team

**Pay grade / staff group:** Post-doctoral Research Fellow

**Hours / duration:** Full time (35 hours per week), Monday to Friday. Fixed term contract for 1 year

**Reports to:** **Professor Johann de Bono**

**Main purpose of the job:**

The post will primarily focus on translational research work, with responsibilities including: 1) overseeing the development and translation of bioinformatic pipelines for active projects, such as developing novel approaches to single-nucleus RNA sequencing alongside other existing pipelines including spatial transcriptomics; 2) integrating multi-omic data to address complex biological research questions; and 3) contributing to the development of novel treatments and biomarkers of response in ongoing clinical trials for metastatic prostate cancer patients.

The postholder will take an active lead in the research, development, and validation of bioinformatic solutions, while also fostering the development of junior staff in these areas. Strong bioinformatic, scientific, and analytical skills are essential. The primary focus will be on next-generation sequencing data and other related applications. The postholder will work closely with the team's Lead Bioinformatician, and other members of the team. They will be expected to contribute to publications, present findings at national and international conferences, and supervise other members of the translational team in these tasks as needed.

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### Duties and responsibilities:

#### General Responsibilities

- Work with the Lead Bioinformatician to assume responsibility for translational bioinformatics research.
- Provide high-level bioinformatics knowledge and support.
- Proactively propose and develop improvements and research methodologies.
- Develop and update standard operating bioinformatics protocols.
- Comply with health and safety policies.
- Adhere to corporate and professional codes of conduct.
- Take responsibility for training new staff or visitors and supervising project work.
- Assist in the maintenance and review of operating policies and develop best practice guidelines for sequencing data analysis.
- Attend training courses as required.

#### Laboratory Duties

- Develop novel methods for snRNAseq, microbiome, and integrative analyses.
- Conduct bioinformatic research.
- Provide bioinformatic support for the team.
- Improve methods for existing protocols.
- Evaluate the potential for AI applications in future research.
- Publish research findings in high-quality, peer-reviewed journals.
- Present research findings at regional, national, and international meetings.
- Collaborate with the bioinformatics team, scientists, and clinicians to develop and implement an effective translational bioinformatics strategy for prostate cancer research, and to secure peer-reviewed grant funding.

#### General

- To work in a flexible, but organised manner.

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- To meet objectives within predetermined timescales.
- To communicate effectively with other members of the Centre, the Drug Development Unit (DDU), Prostate Cancer Targeted Therapy Group (PCTTG) and The Institute, and where necessary outside organizations.
- To take an interest in the relevant literature and assess and implement developments in bioinformatics and cancer biology as appropriate.
- 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.
- This job description is a reflection of the present position and is subject to review and alteration in detail and emphasis in the light of future changes or development.

### Confidentiality

- All information concerning patients and staff must be held in the strictest confidence and may not be divulged to any unauthorised person at any time, unless to do so is in the best interest of the individual. In this instance a Senior Team Member would appropriately advise the post holder.
- Computer data should only be accessed if this has been authorised and is necessary as part of your work.
- The post holder must abide by the requirements of the Data Protection Act at all times.

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### Person specification

#### Education and Qualifications

PhD or equivalent in bioinformatics, biological science, pharmacology or similar	Essential
Extensive experience in bioinformatic research	Essential
Additional qualification/training in cancer research	Desirable
Publications in peer-reviewed journals	Desirable

#### Experience and Knowledge

Demonstrable experience of programming skills including a thorough knowledge of R language and scripting languages (Perl and/or Python and/or Java)	Essential
Experience of the use and evaluation of open source software Experience of software design and development	Essential
Experience of UNIX/LINUX operating systems to an advanced level	Essential
Experience of integration and analysis of NGS data	Essential
Detailed knowledge of core computer service concepts	Essential
Experience of dealing with large data sets	Desirable
Knowledge of cancer research	Essential

#### Skills

Demonstrated delivery, coordination and management of a bioinformatics project	Essential
Evidence of excellent inter-personal communication skills	Essential
Excellent organisational and time management skills with ability to prioritise tasks effectively	Essential
Ability to multitask and work on more than one project at a time	Essential
Ability to develop and maintain excellent communication and working relationships	Essential
Proactive and innovative approach to service improvement and delivery	Essential

#### General

Excellent interpersonal skills to engender successful working relationships with colleagues	Essential
Excellent organisational skills and time management skills, able to meet competing deadlines and work under pressure	Essential
Effective oral and written communication skills, with the ability to communicate complex information to a range of audiences	Essential

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An interest in prostate cancer research and drug development	Essential
The desire to develop their skills further, obtain competitive funding and pursue a post-doctoral fellowship	Essential

### 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 Johann de Bono and Wei Yuan for further information by emailing [johann.debono@icr.ac.uk](mailto:johann.debono@icr.ac.uk) or [wei.yuan@icr.ac.uk](mailto:wei.yuan@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 developments.