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# Post Doctoral Training Fellow - Patient Derived Models Team

## Candidate Information

June 2022

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### Objectives of the post

Oestrogen Receptor positive (ER+) breast cancer is the most prevalent type of breast cancer. Despite the availability of hormonal therapies for patients, this type of cancer frequently recurs ultimately killing patients. There is an unmet clinical need to identify new preventative approaches to recurrence and for drugs that can be used when patients relapse with endocrine therapy-resistant disease.

The Patient Derived Models Team within the Breast Cancer Now Research Centre derives and facilitates the use of *in vivo* patient-derived xenograft (PDX) models of breast cancer, as well as *in vitro* 3D organoid models (patient-derived organoids; PDO and PDX-derived organoids PDXO). Our Patient derived xenograft (PDX) area of research is lead by Prof. Cathrin Brisken focusing on developing PDX models for preclinical studies and personalised medicine. Research on oestrogen receptor positive (ER+) breast cancer has long been hampered by the lack of adequate *in vivo* models for the disease. Her team has overcome this hurdle and demonstrated that grafting to the correct microenvironment is critical for ER+ tumour cells to retain their biological characteristics [Sflomos et al Cancer Cell 2016, Fiche et al J Pathol 2018, Sflomos et al EMBO Mol Med 2021, Shamseddin et al EMBO Mol Med 2021] opening new opportunities for basic and translational research. The Patient Derived Models Team provides expertise and support for the Centre to further the use of clinically relevant models in research.

A Postdoctoral Training Fellow position is available to advance novel PDX models for preclinical studies, translational projects, and co-clinical trials. The successful candidate will develop a pharmacological workflow, predictive biomarker discovery and contribute to generating pre-clinical information that can inform the design of clinical trials.

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We are seeking a highly motivated candidate who enjoys working in a multidisciplinary environment as part of a team. You must possess a PhD in pharmacology, biochemistry, biology, or other associated subjects and have a strong track record in biomedical research. Experience in pharmacokinetics and dynamics, mass spectrometry, molecular biology, statistics, and in working with *in vivo* cancer models is highly desirable.

The candidate will benefit from close interactions with the other teams within the Centre (<https://www.icr.ac.uk/our-research/research-divisions/division-of-breast-cancer-research>) and the ICR at large and interact with industrial partners.

The Breast Cancer Now Research Centre is the first centre in the UK entirely devoted to breast cancer research, with the goal to advance research into the causes, diagnosis, and treatment of breast cancer. The Centre is directed by Professor Andrew Tutt and is located in state-of-the-art laboratory space, with excellent core facilities and funding.

### Appointment details

This is a fixed term appointment for 3 years in the first instance. Appointments will be made in the salary range \*£32,844 p.a. to £45,224 p.a. inclusive. Starting salary will be based on previous postdoctoral experience. \*£32,844 p.a. inclusive for thesis submitted, awaiting PhD award. In addition to annual performance related pay awards, salary scales are reviewed annually to consider any cost of living increases.

ICR has a workforce agreement stating that the maximum length of employment for Postdoctoral Training Fellows should be no more than 7 years within ICR and no more than 10 years total postdoctoral employment (at ICR and elsewhere). Consequently, you should be aware that the length of contract offered will be limited by this agreement.

### 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.

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Our mission is to make the discoveries that defeat cancer.

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.

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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>	Breast Cancer Research, Patient Derived Models Team
<b>Pay grade / staff group:</b>	Post-Doctoral Training Fellow
<b>Hours / duration:</b>	Full time 35 hours per week, Monday to Friday. Fixed term contract for 3 years in the first instance
<b>Reports to:</b>	Professor Cathrin Brisken
<b>Accountable to:</b>	Professor Cathrin Brisken
<b>Main purpose of the job:</b>	A Postdoctoral Training Fellow position is available to advance novel breast cancer PDX models in basic and preclinical research with the aim of improving clinical translation.

### Duties and responsibilities:

#### Summary of duties

To design and perform <i>in vivo</i> studies aimed at validating candidate drugs and to identify predictive biomarkers.
To develop pharmacokinetic and pharmacodynamic for treatments of immunocompromised xenografted mice.
Remain up to date in the relevant scientific literature.
To produce work suitable for high-quality, high-impact publications.
To provide superior level of data storage and record keeping in notebooks, files, and computers, in line with ICR laboratory policy.
To participate in and contribute to regular group meetings.
To keep up to date with relevant literature.
To liaise and exchange with research colleagues of different disciplines.
To meet objectives within pre-determined timescales.
To work under the supervision of the line manager and to consult when appropriate.
Any other duties, which may be required, which are consistent with the nature and grade of the post.

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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.

To familiarise yourself with the ICR's approach towards risk management including its policies and procedures, which require all staff to play an active part in identifying and managing risk

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### Person specification

#### Education and Knowledge

PhD in biology, genetics or other associated subject**	Essential
Knowledge of cancer biology	Essential
Knowledge of cancer genetics	Desirable
Knowledge of bioinformatics	Desirable
Knowledge of statistics	Essential
Understand the clinical management of cancers	Desirable
Strong track record in biomedical research as demonstrated by high-impact, first author publications in relevant areas	Essential

*\*\*as a minimum requirement candidates must have submitted their thesis by the start date of their employment and been awarded their PhD within the six-month probationary period.*

#### Skills

Proven ability to work to deadlines	Essential
Proven ability to design and implement experiments	Essential
High degree of technical expertise	Essential
Good organisational skills	Essential
Ability to plan, organise & prioritise a busy workload	Essential
Ability to write scientific manuscripts	Essential

#### Experience

Considerable experience in cell and molecular biology	Essential
Considerable experience in tissue culture	Desirable
Considerable experience in target identification and validation	Desirable
Experience in <i>in vivo</i> models of cancer	Desirable
Experience in statistics and bioinformatics	Essential
Experience in pharmacokinetics (PK) and pharmacodynamics (PD)	Desirable
Experience with biomarker development	Desirable

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Experience with high throughput screening technologies	Desirable
Experience with genome editing technologies	Desirable
Experience with cell cycle research	Desirable

### General

Flexibility to work as an individual or as a member of a team	Essential
Computer literate, data management skills	Essential
Proven ability to work with limited supervision	Essential
To take interest in the relevant scientific literature	Essential
To work well under pressure whilst maintaining accuracy	Essential

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### Benefits

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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. There is an additional entitlement to 8 bank/public holidays and 3 ICR-set privilege days.

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 Prof Cathrin Brisken for further information by emailing [cathrin.brisken@icr.ac.uk](mailto:cathrin.brisken@icr.ac.uk). Please note, this address is for enquiries only and you should not send your application to this address.

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.