



Postdoctoral Training Fellow

Telomere Replication and Maintenance

Candidate Information

June 2022

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.

The Telomere Biology Team, Cancer Biology Division

Telomeres are nucleoprotein structures that allow eukaryotic cells to distinguish the natural chromosome ends from double strand breaks, protecting them from repair processes and DNA damage. Telomeric defects are observed in essentially all incidents of cancer and are thought to be a major driver of tumorigenesis.

Telomere Replication and Maintenance

Candidate Information

The Telomere Biology Team, led by Dr Max Douglas in the ICR Division of Cancer Biology, aims to understand how these fascinating structures are replicated and processed each cell division cycle, and how these steps are regulated in time and space.

We seek a postdoctoral research scientist to develop an innovative research project that will examine the molecular mechanism of telomere replication and processing steps. You will join an enthusiastic and collaborative group analysing DNA replication and the biochemistry of telomeres using a multidisciplinary approach that employs in vitro biochemical assays and structural biology (see for example Douglas et al, Nature 2018). Candidates with experience working with single-particle cryo-EM are strongly encouraged to apply. You will be given opportunities to use your own initiative and to work in collaboration with others.

Our mission
is to make the
discoveries that
defeat cancer.

Telomere Replication and Maintenance

Candidate Information

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

Telomere Replication and Maintenance

Candidate Information

Job description

Department / division:	Telomere Biology Team, Division of Cancer Biology
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:	Dr Max Douglas, Team Leader
Main purpose of the job:	To develop molecular insight into the replication and processing of telomeres using biochemistry and structural biology

Duties and responsibilities:

- To design and perform a project aimed at understanding how telomeres are replicated and processed each cell cycle, using a combination of in vitro approaches complemented by cellular models
- To maintain accurate records of experiments and data.
- To interact with the team leader and team members, fostering a positive working environment.
- To build on existing collaborations specialising in biophysics and structural biology
- To develop a knowledge of the literature in the subject area.
- Presentation at lab meetings, journal clubs and seminars.
- Writing drafts of publications arising from this work.
- Become familiar with the use and maintenance of specialised laboratory equipment
- Initiate laboratory procedures to ensure smooth running of experimental work for yourself and other team members
- Work in a flexible but organised manner to meet objectives/deadlines
- Work independently and to consult when appropriate
- Contribute to the supervision and training of junior staff
- Any general laboratory duties that will be shared with other members of the team

Telomere Replication and Maintenance

Candidate Information

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.

Telomere Replication and Maintenance

Candidate Information

Person specification

Education and Knowledge

PhD in biochemistry, cell biology, molecular biology or similar	Essential*
Strong publication record in molecular cell biology, biochemistry, biophysics or structural biology, as demonstrated by good first author publications	Essential
Knowledge of chromosome biology and DNA replication	Desirable
Knowledge of genome stability and the eukaryotic cell cycle	Desirable

Skills

Proven ability to design and implement experiments	Essential
Proven ability to communicate research findings at academic conferences and meetings	Essential
Excellent oral and written communication skills	Essential
Proficient IT skills	Essential
Proven ability to purify recombinant proteins	Desirable
Track record of applying for and obtaining research fellowships	Desirable
Proven ability to plan, organise and prioritise a busy workload	Essential
Ability to work effectively and efficiently, both independently and as part of a team	Essential
Ability to work to tight deadlines	Essential
Ability to work well under pressure without compromising output	Essential

Experience

Familiarity with biochemical techniques and experimental approaches.	Essential
Experience in single-particle cryo-electron microscopy, either directly or in collaboration	Desirable
Considerable experience in cell and molecular biology (including recombinant DNA techniques)	Essential
Experience working with in vitro reconstituted systems	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.***

Telomere Replication and Maintenance

Candidate Information

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 Dr Max Douglas for further information by emailing max.douglas@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.