ICR The Institute of Cancer Research

Application Developer

Candidate Information

January 2026

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. 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 are consistently in the top performing universities in the league table of university research quality compiled from the Research Excellence Framework (REF 2014 & 2021). 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 Clinical Trials and Statistics Unit (ICR-CTSU)

Under the Directorship of Professor Emma Hall, the ICR-CTSU is an internationally recognised, methodologist-led academic clinical trials unit (CTU), with over 30 years' experience in the design, conduct and analysis of cancer clinical trials. ICR-CTSU receives programmatic core funding from Cancer Research UK and is a UK Clinical Research Collaborative Registered CTU.

ICR-CTSU translates cutting-edge science into quality clinical trials that can transform cancer care, by:

- Leading patient-centred trials of smarter, kinder therapies that treat cancer more precisely
- Transforming how we design and conduct trials with innovations in trial methodology
- Learning as much as we can with integrated translational research and data science
- Championing purposeful and inclusive patient and public involvement
- Embedding research to improve the sustainability of our trials
- Supporting interdisciplinary training to empower the next generation of trialists

Application Developer
Candidate Information

ICR-CTSU's portfolio of national and international phase II and III trials covers a wide range of disease sites from common cancers (e.g. breast, prostate, lung) through to rarer malignancies (e.g. ovarian, testicular, penile). Our expertise in intervention assessment includes novel targeted drugs and immunotherapy, hormonal therapies and chemotherapy, radiotherapy (including advanced targeted technologies), drug-drug and drug-radiotherapy combinations, imaging technologies and diagnostics/companion diagnostics. Our cross-cutting Integrative Genomic Analysis team facilitates interrogation of the wealth of emerging trial data to further understand mechanisms of action and markers of treatment sensitivity or resistance and to translate novel diagnostic, prognostic and therapeutic strategies into clinically relevant biomarker-driven trial designs. Our Early Phase and Adaptive Trials team provide methodology leadership to an expanding number of early phase trials.

Recent publications highlighting the breadth and impact of our portfolio include:

- PACE: radiotherapy in five larger daily doses is as good as the standard 4-week therapy for patients with low/favourable intermediate risk prostate cancer (New Engl J Med 2024); the most recent of our long-standing portfolio of phase III radiotherapy trials to report practice changing results.
- plasmaMATCH: pioneering evidence to support the use of liquid biopsy ctDNA mutation detection to inform targeted treatment selection for breast cancer patients thus avoiding the need for invasive tumour biopsies (Lancet Oncol 2020).
- POUT: adjuvant chemotherapy improves outcomes for patients with upper tract urothelial cancer (J Clin Oncol 2024)
- NICAM: a phase II study demonstrating activity of nilotinib in a rare form of melanoma with a mutation in the *KIT* gene (Cell Rep Med 2024).

Our methodology work includes the DEFINE study - SPIRIT and CONSORT extensions for early phase dose-finding trials – to enhance transparency and reproducibility for trial protocols and reports (BMJ 2023; BMJ 2023), a review of clinical trial designs for evaluating and exploiting cancer evolution (Canc Treat Rev 2023), use of routine collected data as an alternative to hospital based follow-up (preprint) and work to consider the environmental impact of clinical research and how we can enable lower carbon clinical trials (Griffiths et al 2024 and Griffiths et al 2024).

We are a multi-disciplinary CTU, with more than 90 staff including statisticians/methodologists, clinical trial programme management, trial management, data management, research IT programming and administrative support staff. We are based at ICR's Sutton site.

We have over 75 multi-centre trials in set up, open to recruitment, or in active or long-term follow-up. Our senior management team hold leadership roles shaping clinical research at the local, national and international level.

Further information is available at:

ICR www.icr.ac.uk | **Facebook** www.facebook.com/theinstituteofcancerresearch

ICR-CTSU www.icr.ac.uk/research-and-discoveries/centres-and-strategic-collaborations/clinical-trials-and-statistics-unit-icr-ctsu | **Bluesky** @icr-ctsu.bsky.social

Application Developer
Candidate Information

Job Description

Department / division:	Clinical Trials and Statistics Unit (ICR-CTSU), Division of Clinical Studies
Pay grade / staff group:	Scientific Professional 5
Hours / duration:	Full time (35 hours per week), Monday to Friday, part-time options also considered. Fixed term contract for 1 year in the first instance.
Reports to:	Clinical Trials IT Manager
Main purpose of the job:	To support software development of the Greener Trials (digital) Toolkit and contribute to wider ICR-CTSU IT Programming projects.

Role Summary:

We are looking for an experienced C#/ ASP.net developer, with a strong ability to design and build reliable, maintainable, and user-focused applications. The post-holder will lead the design and development of a modular, open-source carbon-footprinting calculator for clinical trials as part a project funded by Wellcome entitled “Greener Trials: Building the evidence base to improve the environmental sustainability of healthcare and healthcare research”.

They will translate datasets and domain requirements into a data model, SQL schemas, and API-driven back-end services. The role requires end-to-end ownership of the technical implementation: building database structures, developing a .NET-based calculation engine, and ensuring the system can scale to additional datasets and external tools. The developer will also establish secure coding practices, documentation, and automated tests suitable for academic, research, and regulatory environments. They will work closely with sustainability researchers, and CTSU technical leads to produce a reliable, transparent, auditable tool that can be reused across studies and adopted by collaborators.

The post holder will also contribute to wider ICR-CTSU IT programming tasks.

Duties and responsibilities:

The post-holder will be a key member of the ICR-CTSU IT and sustainability teams. They will develop the application independently under the guidance of the ICR-CTSU Clinical Trials IT Manager, ICR-CTSU Assistant Operations Director and key project stakeholders. The successful candidate will document, design and implement a secure, maintainable back-end SQL Server database, associated APIs, and assist in developing requirements for web front end application functionality. The postholder will contribute to project and development meetings, project plans and presentations and be an integral part of the multi-disciplinary project team.

Application Developer
Candidate Information

Duties and responsibilities

Key Duties and Responsibilities

Design, implement, and document the core back-end services for the carbon-footprinting calculator using C# ASP.NET
Design, develop and document the relational database system as required
Ensure secure, maintainable code and version control (experience of GitHub would be an advantage).
Create scalable interfaces to allow integration with external tools and future modules, ensuring the design supports extensibility and open-source adoption.
Contribute to wider ICR-CTSU IT programming tasks to support the day-to-day management of Clinical Trials within the ICR.

General

Participate in relevant meetings including project specific, study specific, role specific and wider team meetings as required.
Be familiar 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
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
Any other duties that are consistent with the nature and grade of the post that may be required

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Person Specification

Education and Knowledge

Degree in Computer Science, Software Engineering, or related discipline, or equivalent professional experience	Essential
Strong knowledge of modern back-end development using C# and .NET (Core or later), including API design and modular service architecture.	Essential
An understanding of the concept of carbon footprinting	Desirable

Skills and qualities

Strong programming skills in C#/.NET	Essential
Good understanding of SQL databases	Essential
Understanding secure coding practices, authentication, authorisation, and general software-development lifecycle controls.	Essential
Analytical and problem-solving ability	Essential
Effective communication skills	Essential
Ability to work independently and collaboratively	Essential

Experience

Experience of development using C#/ASP.NET, WebAPI	Essential
Experience of relational database design and optimisation (e.g. MSSQL)	Essential
RESTful API development and integration	Essential
Deployment in cloud or on-premises environments	Essential
ORM frameworks (e.g. Entity Framework)	Desirable
Version control and CI/CD workflows	Desirable
Front-end frameworks (e.g. Razor Pages, React, Angular, Vue)	Desirable
Authentication/ authorisation (OAuth2, JWT)	Desirable
Experience of code control systems e.g. GitHub	Desirable

Application Developer
Candidate Information

General

Ability to project a positive and professional image of the ICR-CTSU to both ICR and external collaborators	Essential
Ability to maintain adherence to written procedures and clinical and regulatory standards applicable to ICR-CTSU clinical trials	Essential
Experience of handling sensitive and confidential information	Desirable
Experience working to SOPs and an appreciation of the importance of quality management.	Desirable

Application Developer
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

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. All positions at ICR-CTSU are eligible for discretionary hybrid working. 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

For general queries about the recruitment process, please contact ICR-CTSU, email: ctsu@icr.ac.uk.

This job description reflects the current position and is subject to review and alteration in detail and emphasis in the light of future changes or development.