

Job
description

Postdoctoral Training Fellow: Medicinal Chemistry

Candidate Information

April 2024

Department / division:	Centre for Cancer Drug Discovery / Cancer Therapeutics
Pay grade / staff group:	Postdoctoral Training Fellow
Hours / duration:	Full time (35 hours per week), Monday to Friday. Fixed term contract initially 2 years in the first instance.
Reports to:	Gurdip Bhalay (Group Leader Med Chem 1)

Context

We are looking for a talented synthetic chemist with an interest in medicinal chemistry to join a project team focussing on the design and application of small molecules in immuno-oncology, which seeks to harness the body's own immune system to destroy cancer cells. Our aim is to use multi-parameter optimisation in conjunction with structure-based drug design to generate high quality pre-clinical candidate drugs. The candidate will work as part of a multidisciplinary project team to use in house data and structural information to design new molecules then develop and execute synthetic routes to make these compounds in the lab. The candidate will develop their existing skills in organic chemistry as well as their knowledge and experience of applied medicinal chemistry.

Medicinal Chemistry Team 1 is one of several medicinal chemistry teams based on our Sutton site, in state-of-the-art laboratories, in the Centre for Cancer Drug Discovery.

Our mission
is to make the
discoveries that
defeat cancer.

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Main purpose of the job

Design and synthesis of new, targeted anti-cancer compounds, working as part of a team towards the discovery of more effective, safer therapeutics. Learn and develop skills in medicinal and organic chemistry.

Further information

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.

Duties and responsibilities

Key duties

Synthesise, purify and characterise new biologically active compounds

Design and optimise appropriate synthetic routes, reagents and conditions to enable efficient compound preparation

Develop skills in data analysis and data interpretation as well as structure-based design and apply these to medicinal chemistry target design and selection

Work effectively as part of multi-disciplinary team including other medicinal and synthetic chemists, biologists, structural biologists, analytical and DMPK scientists

Maintain accurate experimental records and safe and effective laboratory working practices

Maintain knowledge of new developments in synthesis and expand medicinal chemistry know-how

Prepare results for presentation at internal and external meetings, and for publications and patents

General

All staff must ensure that they familiarise themselves with and adhere to any ICR policies that are relevant to their work and ensure that all personal and sensitive 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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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

Person specification

Education and Knowledge

PhD in organic chemistry, medicinal chemistry or closely related discipline	Essential
Expertise in modern methods of organic synthesis	Essential
Familiarity with medicinal chemistry concepts	Desirable
Familiarity with heterocyclic chemistry	Desirable

Skills

Highly competent in organic synthesis with up-to-date knowledge of synthetic reagents, synthetic methods and an understanding of reaction mechanisms	Essential
Highly competent with organic chemistry purification and characterisation techniques e.g. silica chromatography, HPLC, NMR, MS	Essential
Evidence for creative problem solving in synthetic organic chemistry	Essential
Knowledge of medicinal chemistry design approaches	Desirable
Skilled in the use of synthetic database searching tools (e.g. Reaxys, SciFinder) and their use to inform the design of new organic compounds	Essential
Effective communication skills (written and oral) with ability to recognise and highlight key information	Essential
Effective collaboration skills and ability to work productively with others	Essential
Enthusiasm to work in a lab-based role in an interdisciplinary environment with the goal of discovering improved cancer therapeutics	Essential

Experience

Substantial experience of practical synthetic organic chemistry including multi-step synthesis	Essential
Familiar with chemistry-related software in particular literature/database searching	Essential

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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.

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'.



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

