THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF BIOLOGY, MEDICINE & HEALTH

SCHOOL OF HEALTH SCIENCES

DIVISION OF PHARMACY AND OPTOMETRY

RESEARCH ASSOCIATE IN MEDICINAL CHEMISTRY

VACANCY REF: BMH-024813

Salary:	Grade 6 £36,024 to £38,205 per annum, depending on relevant experience
Hours:	Full Time (1 FTE)
Duration:	Permanent
Location:	Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:
Name: Dr Sam Butterworth
Email: sam.butterworth@manchester.ac.uk

Introduction to the University of Manchester and the Faculty of Biology, Medicine and Health

The University of Manchester is the largest single-site university in the UK with around 38,000 students and more than 11,000 staff. We aim to become one of the top 25 research universities in the world and are committed to delivering an outstanding teaching and learning experience; contributing to the social and economic success of local, national and international communities; producing the highest calibre graduates; and developing our staff to be amongst the very best of their peers.

To achieve our ambitious goals, we aim to attract and retain the very best people to work across a range of academic disciplines and support functions.

The Faculty of Biology, Medicine and Health

The integrated structure of our faculty enables a truly translational approach to biology, medicine and health - from pure discovery science through to clinical application and patient care. It also encourages collaborative working, enabling staff to deliver innovative, world-leading research that has a very real and positive impact on people's lives, as well as high-quality education and training to over 11,000 undergraduate and postgraduate students.

Our Strategic Partnerships

The faculty has established a number of key strategic partnerships that underpin its ambitions to develop ground-breaking research.

Working alongside six local NHS Trusts, the Faculty is a key member of the https://mft.nhs.uk/withington/research/manchester-academic-health-science-centre-mahsc/ - a federation of equal partners that unites leading healthcare providers with world-class academics and researchers. It aims to be a global centre for the delivery of applied health research and education and provide leadership for our local and regional health systems.

We also play a leading role in https://healthinnovationmanchester.com/, which was launched in September 2015, as part of the UK Government's decision to devolve health and social care responsibilities to Greater Manchester. HInM offers a unique opportunity to bring together health and social care, academic and life science related business resources across the region to deliver an innovative health ecosystem that can help accelerate innovation into our local health and social care systems, enhance our global scientific standing and act as a magnet for inward investment.

Key partnerships in the charitable sector include Cancer Research UK; Diabetes UK; and the Wellcome Trust; and the faculty also has research and funding links to a number of commercial organisations including Unilever, AstraZeneca, GlaxoSmithKline and Boots, who help us to bring new drugs and products to the market.

Working for the University of Manchester

The University of Manchester strives to make our community a welcoming, caring and enthusiastic one, fuelling ambition with opportunities and support to help us all achieve our personal and professional goals.

Our diverse job opportunities include an attractive https://www.staffnet.manchester.ac.uk/people-and-od/benefit/ with family-friendly policies that provide for flexible working. We care deeply about career and personal development, offering a structured induction programme for new staff, an annual performance and development review, staff training for all career stages and mentoring opportunities to support your career development.

We have a genuine commitment to http://www.manchester.ac.uk/connect/jobs/equality-diversity/awards/ for our staff and students, and are proud to employ a workforce that reflects the diverse community we serve.

As a global institution, situated at the heart of a lively, chttp://www.manchester.ac.uk/study/experience/student-life/city/, we welcome applicants of all nationalities. To help international job applicants plan for life in the UK, we have put together some useful http://www.staffnet.manchester.ac.uk/employment/joining-the-university/international-staff/ travel to the UK, accommodation and a number of other practical considerations.

The Division of Pharmacy & Optometry

The Division of Pharmacy and Optometry (DPO) is dedicated to research across all parts of our discipline areas. Our Pharmacy research focuses on medicines, aiming to improve aspects of their design, development and use, as well as research covering the practice of pharmacy and the delivery of pharmaceutical services to patients and consumers. This is being advanced within a number of strategic research themes which encompass both the science and practice of pharmacy. Optometry research is also broadly based, covering fundamental aspects of vision science, corneal health, contact lenses and the ocular surface, low vision and the accommodation system.

Research within the DPO is funded by the Research Councils, Charities, EU, DoH/NIHR and Industry including the establishment of the AstraZeneca-funded (£1.5m) North West Centre for Advanced Drug Delivery. DPO is the home of the Centre for Applied Pharmacokinetic Research and Eurolens Research.

Project Background / Overall Purpose of the Post

Breast cancer is the most common cancer in the UK, with around 56,000 cases diagnosed each year. Thanks to breakthroughs in cancer research, treatments, and survival rates, breast cancer has improved dramatically over the last 20 years. However, a subset of patients who are diagnosed with triple-negative breast cancer (TNBC) unfortunately have a worse prognosis, with this disease is more common in women under 40 than other breast cancer types.

Our collaborators at Lancaster University have identified a new target protein that TNBC cells require to survive, but that normal cells do not rely on, and have generated preliminary data with tool compounds showing this protein can be effectively targeted by small molecules.

This post will contribute to the delivery of a North-West Cancer Research funded drug discovery project, aiming to develop these initial tools towards in vivo tool compounds to further validate this target in TNBC models. The post holder will have primary responsibility for the design, synthesis and chemical characterisation of novel compounds, and work closely with the PI team, colleagues and CROs to support delivery of the overall project.

JOB DESCRIPTION

Principal Responsibilities:

- Conduct the design, synthesis and characterisation of novel anti-cancer drugs.
- Work with collaborators and CROs to coordinate testing of compounds and maintain associated chemical databases.
- Develop, train and supervise students and researchers in protocols developed and core facilities used.
- Participate in shared responsibilities that contribute to the management and running of the project.

General

- Through interaction with the PI and other members of the research group to contribute proactively to the development, progression and execution of the project.
- Contribute to the implementation of the project, ensuring that milestones and deadlines are achieved and that work is completed on time and within budget.
- Analyse and interpret data and make a significant input to the scientific direction of the project.
- Prepare and present regular reports on research progress.
- Provide clear and timely written work, producing reports and publishing in high quality publications, and communicate verbally as required with other members of the University and with collaborating partners. This may include presentations at national or international level.
- To attend meetings and conferences as agreed by the PI and appropriate to the post and to represent the group when necessary.

- Keep abreast of current developments in the area of research by conducting relevant literature searches and reviews.
- Contribute to disseminating research information in an appropriate manner, through: i) submission of abstracts at national and international conferences and ii) publications in relevant journals.
- Play an active role in the research group, participating in all group meetings and activities.
- Assist in the laboratory supervision of undergraduate and postgraduate students and junior members of staff, if and when requested.
- To act at all times in accordance with the University's policies and procedures relating to Health and Safety, Equal Opportunities, and all other policies and procedures that apply to the post.
- To understand and engage with the University's social responsibility agenda and contribute, as appropriate, especially with regard to sustainability.
- To undertake appropriate training and development activities.
- Any other duties appropriate to the post and grade that may be reasonably requested.

PERSON SPECIFICATION

The researcher appointed should be a self-motivated individual, with previous experience in synthetic or medicinal chemistry.

Essential

- Have or expect to shortly achieve a Ph.D. (or equivalent experience) in organic chemistry, medicinal chemistry or a related area.
- Experience in route design, synthesis and characterisation of complex organic molecules.
- Excellent organisational and time-management skills, including the ability to deliver timely and high-quality outputs.
- Ability to demonstrate scientific writing and communication skills.
- Ability to be creative in research ideas to develop/progress the research area.
- Ability to plan, organise and undertake work without detailed supervision.
- Ability to develop effective working relationships with all levels of staff, students and external contacts.
- Ability to work under pressure and maintain a high degree of accuracy.
- Excellent verbal and written communication skills.
- Ability to work effectively in a multi-disciplinary team.
- Ability to work independently, use own initiative, where appropriate, and be proactive in approach to work.
- Ability and willingness to learn new skills outside own discipline.

Desirable

- Experience in design, synthesis and characterisation of bivalent degrader molecules.
- Previous experience of applying for research funding.
- Experience of supervising student research projects.
- Evidence of a developing track record in publishing and dissemination of high-quality publications in peer-reviewed journals.