

THE UNIVERSITY OF MANCHESTER
PARTICULARS OF APPOINTMENT
FACULTY OF BIOLOGY, MEDICINE & HEALTH
SCHOOL OF BIOLOGICAL SCIENCES
DIVISION OF MUSCULOSKELETAL & DERMATOLOGICAL SCIENCES
RESEARCH ASSOCIATE: THE POTENTIAL USE OF COMMENSAL BACTERIA AS
MODIFIERS OF INFLAMMATORY PATHWAYS

VACANCY REF: BM&H-016687

Salary:	£32,816 - £35,845 per annum dependent on experience
Hours:	Full Time
Duration:	Fixed Term From 01 July 2021 until 30 June 2023
Location:	Oxford Road, Manchester

Enquiries about vacancy shortlisting and interviews:

Name: Professor Cath O'Neill

Email: catherine.a.oneill@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 over 40,000 students and more than 12,000 staff.

We aim to become one of the top 25 research universities in the world by 2020 and are committed to: delivering an outstanding teaching and learning experience for our students; 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 professional services.

The Faculty of Biology, Medicine and Health (FBMH)

The Faculty of Biology, Medicine and Health was created on 1 August 2016 when the Faculty of Life Sciences and the Faculty of Medical and Human Sciences were brought together in a new, integrated structure to deliver a truly translational approach to the life sciences, ensuring smooth research pathways - from pure discovery science through to clinical application and patient care. With a total annual income of over £300 million, and over 3,000 members of staff, the Faculty is comparable in size to a medium-sized UK university. Thirty undergraduate and 90 postgraduate programmes offer over 11,000 students opportunities to develop the skills and knowledge they need for a successful career.

The Faculty's matrix structure facilitates interdisciplinary working and enables us to learn from each other and share best practice; and our nine, strategic Research Domains help to articulate our research strengths, drive large-scale, collaborative research activities and strengthen relationships with our research and healthcare partners.

The integration of discovery biology, clinical application and patient care within a single Faculty, particularly in a region with notable health inequality, enables us to have a very significant and positive impact on people's lives.

Our Strategic Partnerships

The Faculty has developed key strategic partnerships that underpin its ambitions to deliver ground-breaking research.

It plays a leading role in Health Innovation Manchester (HInM), 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 related business resources to deliver an innovative health ecosystem that significantly enhances our scientific standing and acts as a magnet for inward investment.

As part of this, the Faculty works collaboratively with six local NHS Trusts in a strategic partnership that unites healthcare providers with academics and researchers to deliver leadership for our regional health system - at the same time creating an internationally recognised centre for applied health research and education.

Key partnerships in the charitable sector include Cancer Research UK; Diabetes UK; and the Wellcome Trust; and the Faculty will also have research and funding links to a number of commercial organisations including Unilever, AstraZeneca, GlaxoSmithKline and Boots, who will 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 benefits package 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 ambitions.

We have a genuine commitment to equality of opportunity 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, culturally diverse city, we welcome applicants of all nationalities. To help international job applicants plan for life in the UK, we have put together some useful information on passports and visas, travel to the UK, accommodation and a number of other practical considerations.

O'Neill Lab

Prof O'Neill's research group is focussed on bacterial- host interactions in the skin. In particular, the interests of the group centre around the microbiomes involvement in the physiological responses of skin to environmental challenges. The group is very translational and the whole remit is to turn good science into products for skin in health and disease. This has resulted in the creation of a company, SkinBiotherapeutics PLC which is sponsoring the present project.

Overall Purpose of the Role

This project aims to identify bacteria with the capacity to modulate specific inflammatory pathways in the skin, particularly those associated with IL-10 production. Specific aims of the project are to:

- Identify bacteria with anti-inflammatory potential
- Produce models of skin inflammation
- Test bacteria in the models and establish modes of action

Main Responsibilities

- To take initiatives in the planning of research
- To screen a bank of skin bacteria for anti-inflammatory potential using e.g. ELISA based assays
- To identify and develop suitable skin inflammation models for the testing of bacteria with anti-inflammatory effects
- To conduct data analysis
- To ensure the validity and reliability of data at all times
- To maintain accurate and complete records of all findings
- To write regular internal reports (as agreed)
- To write reports for submission to the industry research sponsor
- To prepare material for presentation in oral and poster formats
- To present findings to colleagues and at conferences
- To draft publications and prepare them for submission to refereed journals
- To submit publications to refereed journals
- To provide guidance to staff and students
- To undertake instruction of PhD students as agreed
- To supervise practical work and advise students on techniques
- To take responsibility for organising resources and effective decision making in support of research
- To attend relevant workshops and conferences as necessary
- To be an active team-member and set positive examples by showing a commitment to achieving results, encouraging and supporting junior members of the team and raising suggestions for continuous improvement
- To work alongside the PI and other colleagues in a collegiate manner and build rapport within the team and the wider Faculty
- To develop contacts and research collaborations within the Faculty and the wider community
- To promote the reputation of the laboratory, Faculty and wider University

Other Duties

- To undertake appropriate administration tasks
- To attend relevant meetings
- To undertake any necessary training and/or development
- Actively read the scientific literature relating to (and around) the project
- To maintain safe workplace practice and procedures in accordance with the requirements of Health and Safety legislation
- To maintain an up-to-date knowledge of relevant statutory Health and Safety legislation and recommendations and attend safety training as required
- Any other duties commensurate with the grade of the post as directed by PI / supervisor

Facilities for animal research are first rate and are validated by all the appropriate Home Office licences. However, if you have any medical, social or ethical reasons for avoiding work on experimental animals, then do not apply for this post.

PERSON SPECIFICATION

Essential Skills, Knowledge and Experience

- Hold (or expect to hold shortly) a PhD in a relevant biological science, preferable immunology
- BSc (hons) in a biological science
- Extensive and up-to-date theoretical and practical knowledge in working with *in vitro/in vivo* models of inflammation
- Excellent technical skills in skin biology/immunology
 - Experience in ELISA or flow cytometry
 - Some experience of basic microbiological techniques would be advantageous
- Proven ability to use initiative to efficiently plan, optimise and progress project and communicate findings
- Extensive IT skills (including experience with powerpoint)
- Excellent interpersonal and communication skills and ability to work with colleagues at all levels
- Good written and spoken English
- A willingness to contribute to the work of others by offering practical and intellectual help

The above particulars are intended as a general guide to the duties of the post and the conditions of service. They do not constitute a contract of employment between the University and the person appointed. The successful applicant will, however, receive a full set of conditions of service on appointment.
