

**THE UNIVERSITY OF MANCHESTER**

**PARTICULARS OF APPOINTMENT**

**FACULTY OF BIOLOGY, MEDICINE & HEALTH**

**FBMH RESEARCH AND INNOVATION**

**DIVISION OF FBMH RESEARCH AND INNOVATION**

**RESEARCH TECHNICIAN IN THE NANOOMICS LAB**

**VACANCY REF: BMH-027178**

<b>Salary:</b>	Grade 4 £27,344-£30,505 per annum, dependent on relevant experience
<b>Hours:</b>	35 hours per week (1 FTE)
<b>Duration:</b>	Fixed Term for 12 months from the 1 <sup>st</sup> of January 2025
<b>Location:</b>	Oxford Road, Manchester

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**Enquiries about the vacancy, shortlisting and interviews:**

Name: Dr Marilena Hadjidemetriou

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**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, <http://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.

### **Context of the role**

Applications are invited for a Research Technician in the NanoOmics Lab (led by Dr Marilena Hadjidemetriou). The post will be tenable on a fixed term basis for 12 months with a possibility to extend further.

You will join the NanoOmics lab at the Centre of Nanotechnology in Medicine and assist in the processing of human clinical blood samples and proteomics data analysis. You will have experience working in a laboratory, in particular using molecular biology techniques such as ELISA. This post is related to animal work, however previous in vivo experience is not required for this role. You should be able to interact effectively with researchers from within the Lab with a range of backgrounds.

You will preferably hold a Bachelor's degree in Biology, Pharmacy, Chemistry or a related subject. You will also have a background in working with minimal supervision once all training has been completed, and producing meticulous records detailing the work carried out. The ideal candidate will also have demonstrable experience of successfully managing their time to deliver against challenging targets.

## **Main Responsibilities**

### **Operational**

- Process human clinical and pre-clinical plasma samples according to established workflows, utilizing biochemical techniques such as SDS-PAGE and ELISA
- Section and stain brain tissue samples from preclinical models, applying techniques like H&E staining and immunofluorescence
- Assist in the analysis of proteomics data using software tools like Progenesis, Proteome Discoverer, and IPA
- Organize and maintain accurate records of samples and experimental data
- Prepare liposome nanoparticles and buffer solutions and perform size exclusion chromatography as needed
- Assist with monitoring and maintaining stock levels of consumables, and support procurement processes for lab equipment and supplies
- Support laboratory operations, including general housekeeping duties to ensure smooth day-to-day running
- Collaborate with the team in the wet lab, contributing to group discussions and decisions on project direction, as guided by the PI

### **General**

- Collect and manage a large body of data and ensure these are documented and stored appropriately
- Document all findings for internal review and record keeping
- 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 undertake appropriate training and development activities
- Any other duties appropriate to the post and grade that may be reasonably requested

## **Personal Specification**

### **Essential Knowledge, Skills, Experience and Qualifications**

- A bachelor's degree (or equivalent) in a relevant biological science subject such as Biology, Pharmacy, Chemistry or similar
- Knowledge of principles of molecular biology, and experience with techniques such as BCA assay and ELISA
- Previous experience in the physicochemical characterisation of nanoparticles (Dynamic Light Scattering)
- Substantial relevant experience of working in a biomedical research laboratory
- Excellent organisational and time-management skills, including the ability to deliver timely and high-quality outputs
- Ability to work with minimal supervision once training has been provided and be proactive in approach to work
- Ability and enthusiasm to learn new skills outside own discipline
- Competent computer skills (e.g. Word Processing, Internet searching and spreadsheets)
- Ability to demonstrate scientific writing and communication skills
- Meticulous attention to detail and ability to record details with high accuracy
- Ability to develop effective working relationships with all levels of staff, students and external contacts, and to work effectively in a multi-disciplinary team
- Ability to follow instructions with minimal supervision
- Ability to work to a high standard with good reproducibility of results
- Willingness to undertake any necessary training

### **Desirable Knowledge, Skills, Experience and Qualifications**

- Experience working with nanoparticles, including preparation and physicochemical characterisation of liposomes
- Experience in sectioning and staining tissue samples and, applying techniques like H&E staining and immunofluorescence
- Experience in cell culture techniques
- Experience in handling biological fluids e.g. blood samples
- Experience working with in vivo animal models/ samples

### **Expectations and success factors**

- To be a proactive team member and treat all colleagues and students with respect in accordance with the established PSS Behaviours
- To be willing to work across organisational boundaries

- To seek new knowledge and share ideas
- To be open and responsive to change and innovation