THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF BIOLOGY, MEDICINE & HEALTH

SCHOOL OF HEALTH SCIENCES

PHARMACY AND OPTOMETRY

REASEARCH ASSOCIATE IN NANOMEDICINE

VACANCY REF: BM&H-016965

Salary:	£32,816 to £40,322 per annum (depending on experience)
Hours:	Full time
Duration:	Permanent
Location:	Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:

Name: Dr Marilena Hadjidemetriou

Email: marilena.hadjidemetriou@manchester.ac.uk

Overall Purpose of the Role

We are looking for an enthusiastic, self-motivated postdoctoral researcher with strong background in Nanomedicine or Cancer Research. The aim of this multidisciplinary project is the use of nanoparticles as a platform to scavenge the blood pool for cancer protein biomarkers. You will join the NanoOmics team (led by Dr Marilena Hadjidemetriou) at the Nanomedicine Lab and will strongly collaborate with other researchers in the NanoTherapeutics team (led by Dr Thomas Kisby; Nanomedicine Lab) and collaborators at the Cancer Research UK Manchester Institute and Canary Center at Stanford for Cancer Early Detection.

The project is funded by the CRUK International Alliance for Cancer Early Detection (**ACED**) and aims to develop a nanoparticle-enabled multi-omics integrative blood analysis pipeline for the discovery of early detection cancer biomarkers. The successful applicant will use a combination

of *in vitro* cell secretome, *ev vivo* blood analysis approaches and preclinical mouse models to discover novel proteogenomic cancer biomarkers using our 'in-house' nanoscale blood enrichment platform.

Successful candidates will be subject to pre-employment screening carried out on our behalf by a third party. The offer of employment will be dependent on the successful candidate passing that screening. Whilst you will be required to provide express consent at a later stage, by continuing with your application now you acknowledge that you are aware that such screening will take place, and agree to take part in the process.

Key Responsibilities, Accountabilities or Duties:

- Conduct experimental research work using relevant preclinical disease models and nanotechnology platforms.
- Perform proteomics analyses to identify blood-based biomarkers of cancer early detection.
- Play an active role in the research group, participating in all group meetings and activities.
- Write up data for publication in high impact journals.
- To develop and drive an independent project within a multidisciplinary group.
- To ensure successful completion of the project and maximise publication output.
- To prepare manuscripts for publication and to address referees' comments.
- To keep up to date with relevant scientific literature.
- To present work at lab meetings along with national and international conferences.
- To supervise graduate students, visiting scientists and others as necessary.
- To interact with collaborators and companies.
- To perform other functions consistent with the position, nature of the post and as determined by the team leader.

STANDARDS OF PERFORMANCE

- Work efficiently, cost-effectively and in a flexible manner
- To meet objectives within pre-determined timescales
- Effective communications to be maintained with staff at all levels
- Strict adherence to protocols, Institute policies and Health & Safety instructions
- Familiarise themselves with the University's Equality and Diversity policies and to actively support these wherever possible.
- Be a team player.
- To strive to accomplish high quality of work.
- 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.

PERSON SPECIFICATION

Essential Knowledge, Skills and Experience

- A PhD in in Pharmacology, Chemistry, Pharmacy, Biology or Medicine or equivalent.
- Demonstrable previous experience in **Nanomedicine** or **Cancer research**
- Demonstrable use of **proteomic techniques** (gel electrophoresis, ELISA) and mass spectrometry data analysis tools (Progenesis, Scaffold)
- Ability and willingness to learn new analytical methods and skills
- Proven ability to efficiently plan, optimise and progress projects
- Excellent organisational skills and extensive IT skills
- Excellent interpersonal and communication (verbal and written) skills and ability to work with colleagues at all levels
- Plan and develop independent and original contributions
- Ability to work under pressure and maintain a high degree of accuracy
- 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

Desirable

- Experience in cancer preclinical models
- Have or have held a Procedure Individual Licence (PIL)
- Experience in cancer cell culture research
- Preparation and physicochemical characterisation of nanoparticles
- Experience in genomic analysis (qPCR, NGS)
- Good publication record in peer-reviewed journals
- Experience of working to GLP