Ref: **EPS-05018**

THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF ENIGNEERING & PHYSICAL SCIENCE
SCHOOL OF CHEMISTRY

Research Associate in
Metabolomics / Bioanalytical Chemistry

1 The University invites applications for the above post which is available from 1st October 2014 for a period of 36 months.

2 Starting salary will be £30,434 to £37,394 per annum according to relevant experience.

3 Informal inquiries may be made to Professor Roy Goodacre. Email: roy.goodacre@manchester.ac.uk

4 Applications should be made on line. If you are unable to apply on line please request an application form by emailing hrservices@manchester.ac.uk quoting the reference number or by calling 0161 275 4499.

5 The School of Chemistry is committed to promoting equality and diversity, including the Athena SWAN charter for promoting women's careers in STEMM subjects (science, technology, engineering, mathematics and medicine) in higher education. The School received a Silver Award in 2013 for their commitment to the representation of women in the workplace and we particularly welcome applications from women for this post. Appointment will always be made on merit. For further information, please visit http://www.chemistry.manchester.ac.uk/about-us/athena-swan/.

Job title:	Research Associate Metabolomics / Bioanalytical Chemistry
Starting salary:	£30,434 to £37,394 per annum
Probation:	9 months
Based at:	The University of Manchester
Responsible to:	Professor Roy Goodacre

BACKGROUND

A Research Associate position is available for an outstanding and ambitious bioanalytical chemist to undertake research in the field of metabolomics. This project is an EU-funded position and is a collaboration with scientists at Manchester Institute of Biotechnology (MIB) and several other partners through Europe. The StrepSynth project aims to develop *Streptomycetes* as a new industrial production platform for high value added biomolecules. The position at MIB is to develop metabolic and flux mass spectrometry analyses for understanding the production of selected proteins and biomolecules in *S. lividans*.

Further details on the project and partners are available via: http://www.strepsynth.eu

JOB DESCRIPTION

Overall purpose:

We are seeking to establish an interdisciplinary collaboration encompassing 16 Partner laboratories that addresses an important Synthetic Biology need: the production of high-value proteins and small molecules in a bacterial heterologous production system. The Job is to develop and establish metabolic and flux mass spectrometry analyses for understanding the production of selected proteins and biomolecules in *S. lividans*.

Main responsibilities

The successful candidate will be based in the Manchester Institute of Biotechnology and will attend regular meetings with colleagues in other EU member states.

The range of duties will include:

- To oversee the smooth running of liquid chromatography, gas chromatography and mass spectrometry equipment associated with metabolomics and ^{13}C and ^{15}N flux analysis in the pursuit of the laboratory's objectives.
- To acquire metabolic profile data, flux distributions and absolute quantitation data applying liquid or gas chromatography and mass spectrometry equipment (or other appropriate equipment or methods).
- Production of standard operating procedures for *S. lividans* pathway analysis using flux-based mass isotopomer analysis.
- Maintain a record of all research undertaken in an agreed and appropriate format for laboratory research.
- Contribute to prestige publications with other members of the group
- Attend national and international workshops and conferences
- Understand and ensure compliance with data standards for metabolomics data.
- Collaboration with the StrepSynth team via regular meetings, discussing mass spectrometric and chromatography issues to establish best practice.

- Liaison with colleagues involved in database management, experimental design and quality control procedures to ensure optimal deconvolution of hyphenated data.

PERSON SPECIFICATION

The position would be particularly suited to candidates who are interested in both fundamental and applied aspects of science.

Essential

- A PhD (or equivalent) in Metabolomics, (Bio)Analytical Chemistry, or other relevant disciplines.

- Experience in one (or more) of the following fields:
    - Metabolic flux-based mass isotopomer analysis.
    - Chromatography-MS based platforms for the analysis of small molecules.
    - Analytical Chemistry including metabolite extraction

- The ability to work independently and as part of a team.

- Evidence of independent contribution to research in database construction and management.

- High level of communication skills.

- Excellent time management and organisational skills.

- Flexible approach to dealing with research problems as they arise.

- Willingness to learn and develop.

- Ability to present in both written and oral publications.

- Ability to meet deadlines.

- Good journal publication record.

- The ability to evaluate complex data.

- Ability to contribute to broader management and administrative processes.