UNIVERSITY OF SURREY

Post Details	Last Updated: 27/09/2019		
Faculty/Administrative/Service Department	Faculty of Health & Medical Sciences		
Job Title	Senior Laboratory Technician – UPLC-MS (Chronobiology)		
Job Family	Technical & Experimental	**Job Level**	L3
Responsible to	Research Laboratory Manager		
Responsible for (Staff)	N/A		

Job Purpose Statement

The appointee will support the day-to day running of a Targeted Metabolomics Service that will involve analysis of samples primarily using quantitative UPLC-MS, including sample preparation, data extraction and statistical analysis of the large datasets generated.
The post-holder will also be responsible for maintaining the MS equipment needed for metabolomics analysis; liaising with external suppliers, writing/updating safety documentation and negotiating service contracts as needed, as well as will participate in the research activities of the staff and students.

Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of the main responsibilities (5 to 8 maximum)

1. Provide technical training support for the Metabolomics Core Facility. This support is to include: technical advice, experimental design, method development, training and assistance to staff and research students in the application of mass spectrometric techniques and use of laboratory equipment.
2. Work on research that is in progress in the lab and set up experimental systems, including the development of new research protocols and new methods to meet research needs, making a contribution towards writing relevant research papers and grant applications in collaboration with academic staff.
3. As part of the technical team, coordinate the testing, repair and maintenance of scientific equipment within designated laboratories. This will involve liaison with external suppliers and research groups to limit downtime of the facilities.
4. Implement Health & Safety policies in the designated laboratories; inventories, equipment records, lab inspections & assisting lab users with documentation (Risk Assessment, etc).
5. Work closely with the Faculty Health & Safety team to establish/maintain safe working practices in designated labs, contributing positively towards the adoption of best practice models and the growth of the health and safety culture.
6. Operate the Metabolomics Core Facility: Instruments under the control of the post-holder include a Waters 'Triple quadrupole' MS Xevo TQ-S; and an Agilent GC-MS; 5975C.

N.B. The above list is not exhaustive.

All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities Policy.
- Work to achieve the aims of our Environmental Policy and promote awareness to colleagues and students.
- Follow University/departmental policies and working practices in ensuring that no breaches of information security result from their actions.
- Ensure they are aware of and abide by all relevant University Regulations and Policies relevant to the role.
- Undertake such other duties within the scope of the post as may be requested by your Manager.
- Work supportively with colleagues, operating in a collegiate manner at all times.

Help maintain a safe working environment by:

- Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand.
- Following local codes of safe working practices and the University of Surrey Health and Safety Policy.

Elements of the Role

This section outlines some of the key elements of the role, which allow this role to be evaluated within the University's structure. It provides an overview of what is expected from the post holder in the day-to-day operation of the role.

Planning and Organising

The post holder will work without close line management supervision but will operate with some direction and guidance from the Research Laboratory Manager and the Academic Lead for Metabolomics and head of section chronobiology.

- The post holder will be able to implement a dynamic approach to problem solving to achieve the most expeditious solutions.
- The post holder will have the freedom to work in a proactive manner and will decide how to achieve the end result, generally based on their judgement, technical expertise and prior experience.

Problem Solving and Decision Making

- The post holder will provide advice and solutions for routine day-to-day problems in their specialist technical area. The appropriate course of action will usually be a matter of choice, influenced by the application of established procedures and their previous experience and exposure to similar problems. They are required to provide advice to users of the laboratories on routine issues within the context of the role, exercising initiative and judgement gained through prior experience and knowledge. The post holder to execute quantitative and qualitative procedures to analyse the findings, training on specific software will be given.

- The post holder is also required to provide a troubleshooting service with regards to any experimental problems/issues they face. Problem solving and decision making are therefore integral to many elements of the work undertaken by the post holder. It is expected that the post holder will apply their skills and knowledge in order to make recommendations for improvements to the efficiency and effectiveness of the services provided.

Continuous Improvement

- The post holder is expected to maintain knowledge of new developments in the field and advise key staff on the need to update/change the facilities, implementing them under the approval of the Technical Services Manager who holds ultimate budgetary responsibility. They are also expected to assist in the preparation of bids and other documentation related to the facilities and research.
- In order to maintain the necessary level of expert knowledge of the instrumentation, the post holder will be expected to ensure their training is kept current.

Accountability

- The post holder is responsible for the safety and security of the laboratory space and equipment. This includes monitoring and maintaining a safe working environment within the laboratories, ensuring that the environment and equipment meets Health and Safety requirements and that any procedures, including waste disposal, are carried out in compliance with their associated regulations.
- The post-holder will work largely independently, with some guidance from the Research manager and Technical Services Manager, the Academic Lead for Metabolomics and Section Head of Chronobiology. They are expected to exercise discretion and judgement when addressing and resolving daily problems or issues on a wide range of routine matters.
- During their day-to-day activities, the post holder is to apply an in-depth knowledge of the instrumentation within the laboratories and its applications, and to provide technical support, advice and solutions (within their specialist technical area) to staff, postgraduate students and clients.
- The post holder is to respond in a timely manner to problems/issues such as equipment malfunction and prioritisation. They are expected to apply well-established processes and procedures and technical working knowledge to assist PGR students in the design, preparation and implementation of experiments, as errors in judgement can result in damaging equipment.

UNIVERSITY OF SURREY

Dimensions of the role

- The post holder will be required to use their experience to establish processes, procedures and quality standards within the School of Biosciences and Medicine, under the guidance of the Research Manager, Academic lead for Metabolomics and Head of Section Chronobiology.
- The post holder will be required to provide frontline technical support for postgraduate student research projects, and themselves play an active role in supporting academics with research activities.

Supplementary Information

- Not applicable

Person Specification This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role.

Qualifications and Professional Memberships		
Degree, HND, NVQ 3 qualified or equivalent qualification, Or significant years relevant experience		E
Degree graduate qualification in a related discipline		D
Post graduate qualification in a related discipline		D
Technical Competencies (Experience and Knowledge) This section contains the level of competency required to carry out the role (please refer to the Competency Framework for clarification where needed and the Job Matching Guidance).	**Essential/ Desirable**	**Level 1-3**
Solid relevant technical knowledge and experience in a biomedical related field	E	2
The ability to provide suitable training for staff and postgraduate students in the routine operation of specialised equipment and on conducting specialist experiments	E	3
Familiarity with ACDP regulations and guidelines for biological hazards	E	2
Comprehensive understanding of Health and Safety Legislation and best practice	E	3
Knowledge of Operation of a range of mass spectrometers	E	2
Experienced in quantitative/targeted HPLC/UPLC - MS analysis	E	2
Special Requirements:		**Essential/ Desirable**
Willingness to undertake specific Health & Safety training as per Faculty arrangements		E
Hepatitis B immunisation		E
Core Competencies This section contains the level of competency required to carry out this role. (Please refer to the competency framework for clarification where needed). n/a (not applicable) should be placed, where the competency is not a requirement of the grade.		**Level 1-3**
Communication		3
Adaptability / Flexibility		2
Customer/Client service and support		3
Planning and Organising		2
Continuous Improvement		2
Problem Solving and Decision Making Skills		2
Managing and Developing Performance		2
Creative and Analytical Thinking		2

Influencing, Persuasion and Negotiation Skills	1
Strategic Thinking & Leadership	1

This Job Purpose reflects the core activities of the post. As the Department/Faculty and the post holder develop, there will inevitably be some changes to the duties for which the post is responsible, and possibly to the emphasis of the post itself. The University expects that the post holder will recognise this and will adopt a flexible approach to work. This could include undertaking relevant training where necessary.

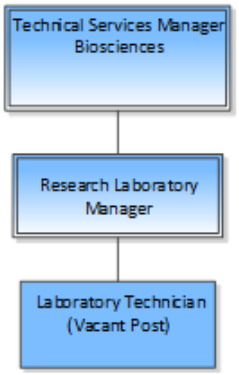
Should significant changes to the Job Purpose become necessary, the post holder will be consulted and the changes reflected in a revised Job Purpose.

Organisational/Departmental Information & Key Relationships

Background Information

As well as expertise in learning and teaching in Biosciences and Health Sciences, our faculty is also widely recognised for world-class research. In the latest UK research excellence framework (REF 2014) we were rated one of the top eight UK institutions for biosciences, health and veterinary research.

Our research has led to improved understanding and treatment of diabetes, cancer, addiction, cardiovascular and infectious diseases. In addition, we have world-leading research in sleep and chronobiology and systems biology. The Chronobiology Section has pioneered the use of untargeted and targeted UPLC-MS metabolomics to investigate 24 h rhythms, circadian timing and sleep/wake processing in a range of species, including humans. Investigating the links between circadian misalignment, sleep restriction, food timing and metabolic disease is currently a key focus.



Relationships

Internal

- The post holder can expect to work closely with the Academic lead for Metabolomics, Section Head of Chronobiology, Head of the School of Biosciences and Heads of Department.
- Regarding the provision of space within the laboratory, liaison with the Faculty Facilities Manager is expected.
- The post holder will work with other members of academic staff to ensure that the technical facilities within the School are properly established, and in due course with postgraduate students
- Close liaison with the University Health and Safety Department is essential to ensure the technical team is adhering to best practice and the current legislation.
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External

- The post holder will be required to liaise with external bodies and organisations in connection with health & safety matters and the disposal of hazardous waste and equipment.
- There is a necessity within the post to interact with the manufacturers for routine servicing and new updates to the equipment and in terms of the hardware and software and negotiation of service contracts.