University of Birmingham
College of Life and Environmental Sciences

School of Biosciences : MRC Regional Phenome Centre

Metabolomics Research Fellow II : Operational Head of Mass Spectrometry and Bioinformatics

Reference 55073

Salary from £38,511 to £51,702 a year

As part of the establishment of the **MRC Regional Phenome Centre** (RPC) at the University of Birmingham, we will soon be recruiting six full-time metabolomics scientists. The MRC RPC will apply liquid chromatography-mass spectrometry (LC-MS), NMR spectroscopy and computational biology to perform metabolic phenotyping research in stratified medicine, primarily in blood cancers, inflammatory diseases and immunological diseases. The School of Biosciences will house the mass spectrometry and informatics themes of the centre, with eight LC-MS systems to be purchased and applied for high-throughput and large scale studies. The MRC RPC will interact closely with the MRC-NIHR National Phenome Centre in London to enhance UK capacity and capabilities in metabolic phenotyping.

Here we seek the first of these six posts, the **Operational Head of Mass Spectrometry and Bioinformatics for the MRC RPC**. The candidate must be highly motivated to develop a strong independent research programme on the application of metabolic phenotyping in stratified medicine to fulfil the objectives of the centre, as well as manage the day-to-day operations of the MRC RPC including the supervision of multiple staff, instrumentation and projects. The post-holder will build their research programme alongside two large and active metabolomics groups, headed by Professor Viant and Dr Dunn, as well as alongside the national NERC environmental metabolomics facility. They will also work closely with the NMR spectroscopy theme of the MRC RPC based in the Henry Wellcome Building for Biomolecular NMR Spectroscopy at the University of Birmingham.

Applicants should hold a PhD in bioanalytical chemistry, mass spectrometry, biomedical metabolomics or related, with extensive experience and demonstrated success of leading a bioanalytical research facility as well as having a strong national reputation and growing international reputation in metabolomics.

The University offers a variety of courses for personal development of its employees.
The University of Birmingham is a family-friendly employer. The School of Biosciences welcomes flexible and part-time working to suit family or other commitments. The University has on-campus childcare facilities.

The post is available in the first instance for 3 years, with the expectation for significant extension subject to the success of the MRC Regional Phenome Centre.

Informal enquiries can be addressed to Professor Mark Viant (tel: +44 (0)121 414 2219 or email: M.Viant@bham.ac.uk) or Dr Warwick Dunn (tel: +44 (0)121 414 5923 or email: W.Dunn@bham.ac.uk).

For further information or to apply visit: www.hr.bham.ac.uk/jobs

Closing date: 9th December 2014

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Job Description

Post Title and Post Number	Metabolomics Research Fellow II - 55073
Organisation Advertising Description	College of Life and Environmental Sciences
Post Number	55073
Full Time/Part Time	Full Time
Duration of post	3 Years
Post is open to:	Internal and External Candidates
Grade	8
Salary	Starting salary is normally in the range £38,511 to £45,954 . With potential progression once in post to £51,702 a year.
Terms and Conditions	Research and Analogous Staff (non-clinical)
Closing Date	9th December 2014

Job Summary

As part of a MRC-led Clinical Research Infrastructure Initiative call in 2014, the University of Birmingham has been awarded £7.3M to enhance clinical research infrastructure and to integrate innovative technologies for genotyping and phenotyping in stratified medicine. Of the award, £5M will be applied to construct the MRC Regional Phenome Centre (RPC) which will apply liquid chromatography-mass spectrometry (LC-MS), NMR spectroscopy and computational biology to perform metabolic phenotyping research in stratified medicine, primarily in blood cancers and immunological diseases. The RPC will interact closely with the MRC-NIHR National Phenome Centre in London to enhance UK capacity and capabilities in metabolic phenotyping. The School of Biosciences will house the RPC mass spectrometry facility, with eight LC-MS systems and two robotic systems to be applied for high-throughput and large scale studies.

The successful applicant will be the Operational Head of Mass Spectrometry (MS) and Bioinformatics for the RPC. As such they must be highly motivated to initiate and develop a strong independent research programme which fulfils the objectives of the RPC, including the day-to-day management of RPC operations including extensive instrumentation, multiple staff and projects.

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Main Duties

- Act as Operational Head of Mass Spectrometry (MS) and Bioinformatics for the MRC Regional Phenome Centre

- Plan, publish and execute high quality research programmes focused on the application of metabolic phenotyping in stratified medicine through professional collaborations internally and externally to the university
- Work with other academic staff to conceive, develop and submit grant applications, as principal investigator or as co-investigator, forming an independent research program that fulfils the objectives of the RPC; e.g. applications to the Research Councils
- Disseminate high quality research in peer-reviewed journals, scientific conferences and to the general public
- Project manage laboratory refurbishments and mass spectrometer / roboticsinstallations in the School of Biosciences in relation to the RPC
- Project manage research activities in the School of Biosciences in relation to RPC objectives in collaboration with grant holders, RPC staff and school staff
- Line manage, supervise and train research staff in the School of Biosciences and in relation to the RPC
- Solve problems that may affect the achievement of research objectives and deadlines in the RPC
- Deliver a national and international advertising campaign describing the capabilities and capacity of the MRC Regional Phenome Centre to academic, government and industry laboratories.
- Develop novel methodologies and techniques to be applied in metabolic phenotyping and stratified medicine and to enhance the capabilities and capacity of the MRC Regional Phenome Centre
- Provide expert advice to colleagues and students within the discipline of metabolic phenotyping and stratified medicine
- To apply knowledge in a way which develops new intellectual understanding
- Supervise and examine PhD students, both within and outside of the University
- Contribute to the administration/management of research across the School
- Be responsible for ensuring RPC financial targets are met

Scope of the Role

- Develop and execute high quality research programmes focused on the application of metabolic phenotyping in stratified medicine through professional collaborations internally and externally to the university
- Act as Operational Head of Mass Spectrometry (MS) and Bioinformatics for the MRC Regional Phenome Centre and provide day-to-day operational management of the MRC Regional Phenome Centre
- Support undergraduate and postgraduate teaching in the school in the fields of metabolism, metabolomics and computational biology.
- Supervise PhD students
- Publish results of own research

Skills and Experience

- First degree in area of specialism and a PhD relevant to research area (bioanalytical chemistry, mass spectrometry, biomedical metabolomics, computational metabolomics, stratified medicine)
- Extensive experience and demonstrated success of operating and managing a large bioanalytical research facility including mass spectrometry platforms **and/or** extensive research experience and scholarship within the research area (bioanalytical chemistry, mass spectrometry, biomedical metabolomics, computational metabolomics, stratified medicine).
- Experience and achievement reflected in a strong national reputation and growing international reputation
- Extensive experience and demonstrated success in planning, undertaking and project managing research to deliver high quality results
- Demonstrated success in grant and/or independent fellowship applications
- High level of intellectual reasoning
- Experience of managing conflicting priorities to tight deadlines
- Experience of working as an effective team member
- Knowledge of the Human Tissue Act, Research Ethics procedures and Research Governance.

Planning and Organising

- Develop and execute plans for the efficient use of research resources in the RPC in collaboration with the management board of the RPC
- Develop and execute plans to fulfil in a timely manner objectives for multiple research projects and in collaboration with research staff within and external to the university
- Develop and execute plans to provide a strong research programme led by the applicant
- Co-ordinate own work with others to ensure efficient operation of RPC and to avoid conflict or duplication of effort.
- Ability to work on own initiative, manage own and others time effectively, progress tasks concurrently and work to deadlines.
- Contribute to the administration/management of research across the School of Biosciences
- To contribute to School research-related activities and research-related administration

Decision Making

- Develop independent research ideas
- Decide how to develop and undertake research
- Decide where and when to present research findings and what publications and conferences to target for this purpose
- Advise, supervise and examine PhD students

Internal/External Relationships

- Develop links with external contacts such as other large metabolic phenotyping facilities in the UK and internationally (in particular the National Phenome Centre)
- Develop links with industrial users of metabolomics technologies to secure research contracts for analyses within the RPC

- Provide expert advice internally and externally in metabolic phenotyping, mass spectrometry and stratified medicine
- Referee and peer review articles for peer-reviewed academic journals and grant applications for research councils and other major funding bodies
- Act as external examiner
- Liaise with research staff and support staff on research-related matters
- Liaise with external principal investigators of RPC research projects
- Give presentations and/or contribute to presentations at national and international conferences
- Maintain contact with (including membership of) appropriate professional bodies
- Liaise with the relevant external research community via seminars and conferences