

Quote ref: MHS/10588

Internal ref: LR/SA

**THE UNIVERSITY OF MANCHESTER**  
**PARTICULARS OF APPOINTMENT**  
**FACULTY OF MEDICAL AND HUMAN SCIENCES**  
**SCHOOL OF BIOMEDICINE**  
**DEVELOPMENTAL & REGENERATIVE BIOMEDICINE RESEARCH GROUP**  
**RESEARCH ASSOCIATE**  
**IN BIOINFORMATIC APPROACHES TO GENETICS & DEVELOPMENT**  
**(REF MHS/10588)**

- 1 The University invites applications for the above post which is available from 1<sup>st</sup> September 2010 and tenable for a period of 36 months.
- 2 Salary will be £28,983 - £35,646 per annum according to relevant experience and qualifications. The University of Manchester will implement a new pay and grading structure in line with the national framework agreement, therefore all grades and salaries are currently under review and may change.
- 3 Informal enquiries may be addressed to:  
Professor Neil Hanley (for BRC overview of the position and biomedical aspects), Chair of Medicine, [neil.hanley@manchester.ac.uk](mailto:neil.hanley@manchester.ac.uk)  
Professor Simon Hubbard (for computational biology aspects of the position), Chair of Computational Biology, [simon.hubbard@manchester.ac.uk](mailto:simon.hubbard@manchester.ac.uk)
- 4 Applications should be returned by 31<sup>st</sup> July 2010 to

Halina Golub  
Receptionist  
AV Hill Building  
University of Manchester  
Manchester  
M13 9PT

E:mail: [AVHill.Reception@manchester.ac.uk](mailto:AVHill.Reception@manchester.ac.uk)

- 5 **All correspondence should quote reference number.**
- 6 The University does not acknowledge applications or contact all unsuccessful applicants. If you have not been contacted within 4 weeks of the closing date you should assume that, on this occasion, your application has not been successful. We would, however, like to take this opportunity to thank you for your interest in The University of Manchester.

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**WITH THE COMPLIMENTS OF THE DIRECTORATE OF HUMAN RESOURCES**

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## **The University of Manchester**

### **Job Description**

**Job Title:** Research Fellowship in Bioinformatic Approaches to Genetics & Development

**Reports To:** Professor Graeme Black, Director of the Manchester NIHR Biomedical Research Centre

**Organisation Unit:** Faculty of Medical and Human Sciences

**Date:** January 2010

### **PROJECT TITLE**

Research Fellowship in Bioinformatic Approaches to Genetics & Development

### **BACKGROUND**

#### **Key Responsibilities, Accountabilities or Duties:**

The role will be broad-ranging involving data analysis of genome-wide primary experiments carried out by University of Manchester senior researchers, contributing to experimental design and bespoke downstream informatic analyses of all results. This could entail analysis of chromatin immunoprecipitation experiments (e.g. for histone modifications and transcription factors), RNA-seq and expression microarray, and attendant proteomic analyses using mass spectrometry. In particular, the post will exploit datasets obtained from our established SOLiD Next-Generation DNA sequencing platform. Therefore, the role complements 'wet' experimental ones from a number of research groups led by senior investigators, and will require a collaborative approach to experimental working. Within this role, there will be the protected opportunity to develop an individual career, apply for prestigious external senior fellowships, and prepare for a future independent research career as a principal investigator.

#### **You will be expected to:**

- Write up research findings for publication in leading journals
- Contribute to writing bids for research grants
- Independently manage your own research on a day to day basis
- Supervise other postdoctoral, PhD and undergraduate students as required and appropriate
- Provide guidance to more junior research staff and students.
- Investigate models and approaches to test and develop them
- Summarise data, produce scientific ideas, write reports and present data
- Produce high quality data suitable for publication in high impact journals
- Work in a team, collaborate, be enthusiastic, self-motivated and hard working, and be guided by senior colleagues

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

- Hold a PhD, preferably in bioinformatics or computational biology but other biological, computational science or theoretical disciplines may be considered (including maths & physics)
- Have good knowledge of biological and / or biomedical concepts
- Be highly competent in bioinformatic analyses of genome-wide datasets
- Have evidence of high quality productivity from previous research
- Contribute intellectually to the project
- Have excellent communication skills
- Flexibility as regards working hours
- Good organisational skills
- Fluent written and spoken English

**Desirable Knowledge, Skills and Experience:**

In addition to the above essential skills, the following are desirable:

- Relevant experience dealing with microarray/deep sequencing data, in particular in the context of transcriptome/ chromatin and transcription factor immunoprecipitation and the attendant statistical treatments required.
- Relevant bioinformatics experience integrating data sets of different types related to genomes, and in particular, mammalian functional genomics data.

**ENVIRONMENT**

The University of Manchester has made a major investment in recent years in infrastructure both in terms of building and core facilities, such as Next-Generation DNA Sequencing. The revised layout integrates researchers from the Faculty of Medical and Human Sciences (FMHS) and Life Sciences (FLS) within a single bridged complex of the AV Hill, Core Technology Facility, Michael Smith and Stopford Buildings, forging one of the largest and most successful, unified research organisations of its kind in Europe. This post will have strong links to colleagues in Manchester Bioinformatics (<http://www.bioinf.manchester.ac.uk/>) and the Computational & Evolutionary Biology Research Group in FLS. The latter comprises the largest UK academic grouping of computational biologists with research spanning the full range from genome to systems biology, providing the hub to the over 100 active researchers in bioinformatics spread across the University in Life, Physical and Computer Sciences. Specific interactions over datasets will also be possible with the laboratories of Professor Andrew Sharrocks, Professor Simon Hubbard, Dr David Robertson, Professor Mike Dixon, Professor Neil Hanley and Professor Graeme Black. An outstanding environment is available for the proposed research with a professionally-managed high-performance computing cluster and an active and highly interactive research-training environment.

FMHS and FLS place considerable emphasis on the provision of personal and transferable skills at all levels thereby providing an important interface between research and education. The postdoctoral training programme includes a series of workshops encompassing interview/interviewing skills, appraisal skills, presentation and writing skills.

The Central Manchester University Hospitals NHS Foundation Trust is one of the largest in the UK and places research high on its agenda. In partnership with the University of Manchester, it holds the only UK NIHR Biomedical Research Centre in Genetics & Development, which has also been supported by an investment of over £14M from the Northwest Development Agency.

Please note: The above particulars are intended as a general guide to the duties of the post and the conditions of the service. They do not constitute a contract of employment between the University and the person appointed. The successful applicant will, however, receive a full set of conditions of service on appointment