



## JOB DESCRIPTION

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<b>Job Title:</b>	<b>Research Associate</b>
<b>Centre:</b>	<b>Division of Infection &amp; Immunity</b>
<b>Responsible to:</b>	<b>Dr Mahdad Noursadeghi</b>
<b>Location:</b>	<b>UCL Cruciform Building, Gower Street.</b>
<b>Salary</b>	<b>Grade 7, £32,699 - £39,523 per annum (inclusive of London Allowance)</b>
<b>Closing date for applications:</b>	<b>Friday 21<sup>st</sup> February 2014</b>
<b>Interview date:</b>	<b>Friday 28<sup>th</sup> February 2014</b>

## CONTEXT AND PURPOSE OF THE JOB:

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This is a one year post for a post-doctoral research scientist to participate in a range of laboratory research projects within Dr Mahdad Noursadeghi's group in the Division of Infection & immunity at UCL. Dr Noursadeghi's group investigate the mechanisms of protective and pathogenic immune responses in infectious and inflammatory diseases, in order to inform the development of novel therapies or approaches for patient stratification. The work extends from in vitro laboratory models to challenge experiments in humans and sampling of tissues at the site of disease in order to understand immunopathogenetic mechanisms in vivo. In view of the multivariate complexity of immune responses, genome wide transcriptional profiling strategies are used in order to obtain systems level assessments with molecular resolution. The post holder will work on specific aspects of existing projects, including the application of gene expression profiling of peripheral blood samples to stratify patients with acute infectious diseases, and on a collaborative project with investigators at the Institute of Ophthalmology to investigate the role of inflammatory monocytes in acute corneal transplant rejection. The group is supported by research funding from the National Institute for Health Research, Medical Research Council, Wellcome Trust, Arthritis Research UK and Rosetrees Trust.

## PRINCIPAL RESPONSIBILITIES:

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- 1. To undertake laboratory experiments and clinical research sample processing, under the supervision of Dr M Noursadeghi:**
  - Experimental work will include mammalian and bacterial cell culture, virus production, immunological assays, quantitative PCR and molecular biology, flow cytometry, microscopic imaging, and transcriptional profiling of peripheral blood samples and of tissue biopsy specimens.**
- 2. To comply with departmental safety procedures and existing laboratory risk assessments, to develop new risk assessments where necessary and to ensure that equipment is safe and maintained in working order.**
- 3. To maintain accurate electronic and/or hard copy records of laboratory protocols, experimental design and conditions, and sample processing steps including quality control assessments.**
- 4. To prepare reports and presentations of laboratory work for seminars, manuscripts for publication, public engagement initiatives and funding bodies.**
- 5. To contribute to the overall activities of the research team and department as required.**
- 6. To contribute to the induction and direction of other research staff and students as requested. It is expected that the post holder will support other members of the Institute in their research roles in addition to developing their own project.**
- 7. To attend all research team meetings.**
- 8. To actively follow UCL policies on Health and Safety, Race Equality, Equal Opportunities, Research Governance and Research Ethics.**

PERSON SPECIFICATION

The following is a list of essential and desirable requirements needed in order to do the job. Applicants will be short-listed solely on the extent to which they meet these requirements.

QUALIFICATIONS, EXPERIENCE & ABILITIES	ESSENTIAL	DESIRABLE
<b>PhD (or equivalent degree) in a relevant subject</b>	✓	
<b>Self-motivated and enthusiastic</b>	✓	
<b>Commitment to high quality research</b>	✓	
<b>Experience of cell culture, immunological assays, quantitative PCR and molecular biology, flow cytometry, microscopic imaging</b>	✓	
<b>Experience of whole genome transcriptional profiling</b>		✓
<b>Working knowledge of data management and presentation software applications</b>	✓	
<b>Working knowledge of statistics and data analysis</b>	✓	
<b>Experience of high dimensional data analysis and bioinformatics</b>		✓
<b>Effective written and verbal communication skills</b>	✓	
<b>Ability to work safely</b>	✓	
<b>Ability to work autonomously, organise and prioritise work</b>	✓	
<b>Ability to work collaboratively and as part of a team</b>	✓	
<b>Ability to react effectively to requests from the Team Leader and other colleagues.</b>	✓	
<b>Ability to use initiative to resolve difficulties.</b>	✓	
<b>Ability to identify own learning needs and desire to develop the role</b>	✓	