FURTHER PARTICULARS

| Post title:          | Chronic Disease Epidemiologist  
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<tr>
<th></th>
<th>SENIOR, INTERMEDIATE OR JUNIOR POSITION AVAILABLE</th>
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<tbody>
<tr>
<td>Department/School:</td>
<td>Public Health and Primary Care</td>
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</tbody>
</table>
| Grade/Salary/Role Type: | Research Assistant: £24,049- £27,047  
|                     | Research Associate: £27-854- £36,298    
|                     | Senior Research Associate*: £37,382- £47,314 |
| Responsible for:    | TBC                                     |
| Responsible to:     | Professor John Danesh                   |

Role Purpose
This post will perform a key scientific role in the Cardiovascular Epidemiology Unit. The main role will be to coordinate and implement analyses of various risk factors for cardiovascular disease in a portfolio of studies involving large epidemiological databases. Specific examples of these analyses may include:
- assessing novel and emerging risk factors for association with cardiovascular disease in multi-study consortia;
- investigating the incremental benefit of adding novel risk factors to existing cardiovascular risk prediction scores;
- integrating genetic data with cardiovascular risk factors to assess causality of associations.

Such analyses will provide internationally unique and unusually detailed insights into the relevance of novel risk factors to cardiovascular disease. The role will involve contributing importantly to a series of high-impact publications. The post holder will also help to establish new projects, and contribute to core projects within the CEU. The post-holder will work closely with the other members of the team, and liaise with other members of the CEU group.
The post holder will work in close conjunction with the senior epidemiologists in the CEU, including: Professor Danesh, Dr Emanuele Di Angelantonio, Dr Adam Butterworth, and Dr Danish Saleheen. He/she will be assigned to work principally in a group led by one of these individuals. He/she will also work closely with other members of the CEU and scientific collaborators based in other institutions.

**Organisational Chart**

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Director, CEU

Team Leader

Data Managers

Epidemiologist

Epidemiologists

Statisticians
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**Key duties and responsibilities**

<table>
<thead>
<tr>
<th></th>
<th>Designing and leading analyses of specific hypotheses relating to emerging / novel risk factors and cardiovascular disease in epidemiological databases</th>
<th>daily</th>
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<tbody>
<tr>
<td>2</td>
<td>Working closely with colleagues to help interpret findings and draft manuscripts and other reports for publication</td>
<td>monthly</td>
</tr>
<tr>
<td>3</td>
<td>Working with statisticians and other colleagues in the CEU to help develop and implement methodologically appropriate analysis strategies for planned investigations</td>
<td>daily/weekly</td>
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<tr>
<td>4</td>
<td>Anticipating, communicating and solving any potential problems that arise with analyses or other aspects of research projects</td>
<td>as necessary</td>
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<tr>
<td>5</td>
<td>Contributing to reports, presentations and publications by preparing numerical and graphical summaries using relevant computer software</td>
<td>weekly</td>
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<tr>
<td>6</td>
<td>Assist in preparation of grant applications to secure further funding for relevant projects</td>
<td>occasionally</td>
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<tr>
<td>7</td>
<td>Conducting literature-based searches to help identify priorities for new areas of investigations</td>
<td>monthly</td>
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<tr>
<td>8</td>
<td>Helping establish new projects and research consortia relating to risk factors</td>
<td>as necessary</td>
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<tr>
<td>9</td>
<td>Reviewing, analysing or presenting information based on risk factors or other projects when requested</td>
<td>as necessary</td>
</tr>
</tbody>
</table>
### Person profile

**Essential knowledge, skills and experience required for role**

<table>
<thead>
<tr>
<th>Education &amp; qualifications</th>
<th>Relevant epidemiological or statistical training (e.g., Masters or PhD in Epidemiology, Public Health or Applied statistics).</th>
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</thead>
</table>
| Specialist knowledge & skills | A sound understanding of epidemiological concepts, particularly in relation to chronic disease epidemiology.  
Strong quantitative skills.  
High-level report writing and presentation skills. |
| Interpersonal & communication skills | Strong organisational and interpersonal skills.  
Excellent verbal and written communication skills. |
| Relevant experience | Experience of using Microsoft Office and statistical software (e.g., Stata). |
| Additional requirements | Ability to judge priorities and work to tight deadlines.  
Ability to be productive and energetic.  
Ability to work to targets both independently and within a team environment.  
Ability to ensure accuracy and rigor in all areas of work. |

### Desirable knowledge, skills and experience required for role

<table>
<thead>
<tr>
<th>Education &amp; qualifications</th>
<th>At least one year of relevant work experience.</th>
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</table>
| Relevant experience | Analysis of large, complex epidemiological datasets.  
A track record of authoring scientific publications.  
Knowledge of cardiovascular epidemiology.  
Knowledge of human genetics and/or biochemistry. |
| Additional requirements | Ability to assimilate rapidly new scientific and medical concepts. |
### Summary of Terms & Conditions

<table>
<thead>
<tr>
<th><strong>Location:</strong></th>
<th>Department of Public Health and Primary Care, Strangeways Research Laboratory, Worts Causeway, Cambridge, CB1 8RN</th>
</tr>
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<tbody>
<tr>
<td><strong>Limit of Tenure:</strong></td>
<td>Funds for this post are available until 31 December 2015 but for no longer than three years in the first instance.</td>
</tr>
<tr>
<td><strong>Annual Leave:</strong></td>
<td>Full time employees are entitled to annual paid leave of 6.6 weeks (or 33 days) for those working full time, plus public holidays. The leave year runs from 1st October – 30th September.</td>
</tr>
<tr>
<td><strong>Hours of work:</strong></td>
<td>This appointment is full-time.</td>
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<tr>
<td><strong>Pension:</strong></td>
<td>The Universities Superannuation Scheme is a national scheme for employees on academic, research and academic related scales of pay which covers all the pre-1992 Universities and a number of other educational and research bodies. <a href="http://www.admin.cam.ac.uk/offices/hr/forms/chris6/">Universities Superannuation Scheme (USS)</a></td>
</tr>
<tr>
<td><strong>Probation:</strong></td>
<td>6 months</td>
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<tr>
<td><strong>Closing date for applications</strong></td>
<td>Applications must be received by 5.00 pm on Monday 12 August 2013</td>
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<tr>
<td><strong>Expected date for interview/selection</strong></td>
<td>w/c 26 August 2013</td>
</tr>
<tr>
<td><strong>How to apply</strong></td>
<td>For an informal discussion about the post, please contact Dr Emanuele Di Angelantonio (<a href="mailto:ed303@medschl.cam.ac.uk">ed303@medschl.cam.ac.uk</a>).</td>
</tr>
</tbody>
</table>

Formal applications consisting of a covering letter, CV and a completed CHRIS 6 form, parts 1 and 3 only to be completed (available from [http://www.admin.cam.ac.uk/offices/hr/forms/chris6/](http://www.admin.cam.ac.uk/offices/hr/forms/chris6/)) should be sent, preferably by email to Lynette Watson: phpc.admin@medschl.cam.ac.uk or by post to Department of Public Health and Primary Care, Strangeways Research Laboratory, Worts Causeway, Cambridge CB1 8RN.

Your cover letter should describe how you meet the person specification for the role.

ALL APPLICATIONS MUST BE RECEIVED BY 5 PM ON THE CLOSING DATE.
ADDITIONAL INFORMATION
Position: Chronic Disease Epidemiologist

SENIOR, INTERMEDIATE AND JUNIOR POSITIONS AVAILABLE

School: Clinical Medicine

Currently advertised position
The Cardiovascular Epidemiology Unit (CEU) (http://www.phpc.cam.ac.uk/CEU/) at the University of Cambridge is an internationally recognised interdisciplinary group currently comprising >50 staff and students. Due to recent expansion, an opportunity has arisen for a talented chronic disease epidemiologist who is interested in joining world-leading large-scale studies of cardiovascular disease. This position can be filled by an appropriate candidate at Senior Research Associate, Research Associate or Research Assistant level, depending on relevant qualifications and experience.

The University of Cambridge
The University of Cambridge was ranked the best university in the world by the QS World University Rankings 2011/12. The University comprises 31 Colleges and more than 150 departments, faculties, schools and other institutions plus a central administration.

The Department of Public Health and Primary Care (DPHPC)
The Department is one of Europe's leading academic departments of population health sciences. It was top-ranked in Epidemiology and Public Health in the UK Research Assessment Exercise 2001-2008. It has been led by Professor John Danesh since 2001 and comprises over 350 people.

Cardiovascular Epidemiology Unit
The post-holder will be based in CEU, which is a research unit based in the DPHPC. The CEU is directed by Professor Danesh. It is supported by long-term research grants from a number of funding agencies, including the: British Heart Foundation, UK Medical Research Council, Wellcome Trust, UK National Institute of Health Research, European Commission, US National Institutes of Health, and industry. The staff of the CEU include: epidemiologists, statisticians, physicians, geneticists, nutritionists, data managers, and administrative staff. The work of the CEU has been typified by an unusual number of high-impact publications in leading journals (Table 1).

The overarching objective of the CEU is to identify and evaluate emerging and novel cardiovascular risk factors to determine their potential relevance to: (1) disease aetiology, with implications for therapeutic strategies (2) risk prediction, with implications for screening. This work is being pursued through 6 inter-linked "strands" of research that are mutually dependent and informative (Figure 1).

Specific objectives include:

- To characterise in detail any independent associations of priority emerging risk factors with CVD
- To optimise screening strategies for CVD, including stratified (or "personalised") approaches
- To use human genetic evidence to discover and prioritise potential therapeutic targets in CVD
- To establish cost-effective and scalable new epidemiological bioresources in the UK to study CVD
- To discover distinctive genetic and environmental risk factors for CVD in South Asia
- To identify joint effects between genotypes and components of lifestyle on CVD risk.
Examples of world-leading studies particularly relevant to this post include:

The Emerging Risk Factors Collaboration: This consortium, which is intended to resolve clinical and epidemiological controversies for well-known factors related to lipids, inflammation, and metabolic dysfunction, has been expanded to include information on additional risk factors and now comprises individual participant data on 2 million people in 130 long-term prospective studies worldwide.

EPIC-Heart / EPIC-CVD: These pan-European collaborations have the dual aim of studying the interplay of nature and nurture in the causation of cardiovascular disease and studying how to optimize screening for this condition. Identification and validation has been completed of 15,000 incident coronary heart disease cases (plus identification of 10,000 incident stroke cases and ongoing validation of them) and 15,000 controls. For all of these participants, assays are completed or in progress of 75 soluble biomarkers, and genotyping of 215,000 selected SNPs in the CardioMetabochip+ array (genotyping is nearing completion), and 450,000 SNPs using a novel gene array that should enable both assumption-free discovery of low-frequency functional alleles and focused evaluation of key hypotheses.

NHSBT Blood Donors Cohort: Building on our study of 2500 donors in the Cambridge CardioResource, we are recruiting 50,000 participants from NHSBT donation centres across England and Wales into a randomised trial which has an immediate objective of identifying the optimum interval between blood donations, a question of great practical relevance to the NHSBT. The longer-term goal is to establish a scalable epidemiological bioresource to study various determinants of CVD. The study’s highly-committed volunteers have agreed to periodic re-surveys, wearing devices, and recall for explanatory sub-studies.

Pakistan Risk of Myocardial Infarction Study: Our case-control studies of MI and stroke in Pakistan have expanded to a total of 40,000 participants, enhancing ability to identify novel risk factors distinctive to this ethnic group (such intermarriage, consumption of ghee, and use of smokeless tobacco). Extensive assays in these participants are nearing completion, including GWAS in 23,000 people and assay of 55 soluble vascular biomarkers in 18,000 people.

Bangladesh Risk of Acute Vascular Events Study: We have established a new case-control study of MI in Bangladesh (3000 participants recruited so far), focusing on evaluating the proposed aetiological link between chronic exposure to arsenic and other metal contaminants (eg, lead, cadmium, manganese) and CVD.

The CEU also leads an international CVD genetics consortium consisting of 50,000 CVD cases and 50,000 controls, with a specific focus on identifying and prioritizing potential therapeutic targets for medicines development.

The CEU has recently expanded further following expansion of existing teams as well as the formation of several new groupings, including: a biostatistical methods team after Professor Simon Thompson’s appointment (2011), the Pfizer-Cambridge Centre for Cardiovascular Genomics (2011), and an NHSBT Centre for Population Donor Health (2012).
Table 1: 20 Exemplar Publications since 2008 from the Cardiovascular Epidemiology Unit


5. Lorenz M., 18 co-authors…Thompson SG. Carotid intima-media thickness progression to predict cardiovascular events in the general population (the PROG-IMT collaborative project): a meta-analysis of individual participant data. *Lancet* 2012;379:2053.


*denotes equal contribution
**School of Clinical Medicine**

The School of Clinical Medicine at the University of Cambridge (‘the Clinical School’) is one of the UK’s leading medical schools. Its strength is built on close relationships with pre-clinical science and translational partnerships with NHS organisations.

**Organisation of the School**

The School of Clinical Medicine comprises 12 formal Departments (Clinical Biochemistry, Haematology, Medical Genetics, Medicine – including Anaesthesia and Clinical Pharmacology – Obstetrics and Gynaecology, Oncology, Paediatrics, Public Health and Primary Care, Psychiatry, Radiology, Surgery and Clinical Neurosciences) which map onto service delivery within the University Hospital and undergraduate and postgraduate clinical teaching.

Alongside departments, the School maintains a number of cross-departmental institutes to bring together researchers with cognate interest. At present, there are three institutes: Cambridge Institute for Medical Research; Institute of Metabolic Science and Institute of Public Health with a fourth planned (in Cardio-Respiratory Medical Research).

**Excellence in Research**

The research of the School is pursued under a number of cross-departmental themes: these include Cancer Sciences, Metabolic Disease including Obesity and Diabetes, Neurosciences and Mental Health, Cardiovascular Medicine, Genetics and Genetic Medicine, Transplantation, Immunity and Infection, and Epidemiology, Public Health and Primary Care. Associated with these major research themes are a number of underpinning themes in which the School has particular research strengths: these include Structural and Cell Biology applied to Medicine, Medical Imaging, Stem Cell Medicine, and Bioinformatics.

Pursuit of the major underpinning research themes is enabled and facilitated by a number of cross-departmental research institutes under the aegis of the School. These include the Cambridge Institute for Medical Research (CIMR) supported by a Wellcome Trust Strategic Award, and including the Juvenile Diabetes Research Foundation/Wellcome Trust Diabetes and Inflammation Laboratory (JDRF/WT DIL), the Institute of Public Health, the Institute for Metabolic Science (opened in October 2007), the Brain Repair Centre, the Wolfson Brain Imaging Centre, the Hutchison/MRC Cancer Research Centre, and the Centre for Genetic Epidemiology. A further refurbished (the West Forvie) building housing translational stem cell medicine and laboratories for the metabolic and imaging phenotyping of small animal models of disease opened in mid-2008. There is exceptional existing strength in ‘experimental medicine,’ focused through the Wellcome Clinical Research Facility.

In the Higher Education Funding Council’s 2008 Research Assessment Exercise, the Clinical School with the Department of Pathology received a grade point average of 3.11 across the 8 Units of Assessment to which it made submissions under Main Panels A and B (the highest of any Medical School in the UK) with 80% of its total submission being rated internationally excellent or world leading (3* and 4*).

The School’s strategic plan relates the major themes of basic medical science to the problems that arise in clinical practice. These include: the neurosciences, genetic medicine, endocrinology, cancer, immunology and infection, vascular biology, imaging, public health medicine and general practice. The plan includes developing closer links with the Physical Sciences and Engineering through new appointments. The Cambridge Computational Biology Institute is a cross-School initiative with these and with the School of the Biological Sciences.
Excellence in Partnership

The Clinical School is a member of Cambridge University Health Partners, a partnership between the University of Cambridge, Cambridge University Hospitals NHS Foundation Trust (the main acute trust for Cambridge), Papworth Hospital NHS Foundation Trust (a specialist Cardio-Thoracic Trust) and the Cambridge and Peterborough NHS Foundation Trust (the regional Trust responsible for Mental Health).

Cambridge University Health Partners is based on the Cambridge Biomedical Campus at Addenbrooke’s Hospital. This campus hosts activities from all four of the partners and is the main physical site for two of them. It also hosts institutes and units run by other bodies which make major contributions to the richness of the environment. These include the Medical Research Council, Cancer Research UK and GlaxoSmithKline. Together, the partners are intending to double the size of the Cambridge Biomedical Campus by 2020. New developments will include additional clinical space to accommodate expansion and improvement of healthcare; including the relocation of Papworth Hospital, new research space associated with the clinical developments and a commercial biomedical science park.

University of Cambridge

The University of Cambridge (http://www.cam.ac.uk/) is one of the world’s leading universities with an outstanding reputation for academic achievement and research. The University comprises 31 Colleges and more than 150 departments, faculties, schools and other institutions plus a central administration function.

Unified Administrative Service (UAS) is the university’s central administrative function. Offices of UAS are listed here http://www.admin.cam.ac.uk/offices/.

For maps of all university sites please follow this link: http://www.cam.ac.uk/map/.

Benefits of working at University of Cambridge

There is a range of information which you may find helpful on the University’s website: http://www.jobs.cam.ac.uk/. This includes applying for posts, working at the University and living in Cambridge.

To find out more about the financial, personal and recreational benefits of working at the University of Cambridge, click on headings on the final page of this document to visit current university web pages.
**Pre-employment checks required**

All applicants are legally required to demonstrate the right to work/permission to work in the UK. The requirement for any higher level pre-employment checks is dependent on the role. Any offer of employment will be conditional upon the satisfactory outcome of these checks and whether an outcome is satisfactory will be determined by the University.

Pre-employment checks required for this post are evidence of right to work in the UK and an occupational health clearance.

**Equal Opportunities Information**

The University of Cambridge is committed to a policy and practice which require that entry into employment with the University and progression within employment be determined only by personal merit and by the application of criteria which are related to the duties of each particular appointment and the relevant stipend or salary structure. No applicant for an appointment in the University, or member of staff once appointed, will be treated less favourably than another on the grounds of sex, (including gender reassignment), marital status, race, ethnic or national origin, colour, or disability. If any employee considers that he or she is suffering from unequal treatment on grounds of sex (including gender reassignment), marital status, race, ethnic or national origin, colour, or disability, he or she may make a complaint which will be dealt with through the agreed procedures for dealing with grievances.

**Information if you have a Disability**

The University welcomes applications from individuals with disabilities. Our recruitment and selection procedures follow best practice and comply with disability legislation.

The University is committed to ensuring that applicants with disabilities receive fair treatment throughout the recruitment process. Adjustments will be made, wherever reasonable to do so, to enable applicants to compete to the best of their ability and, if successful, to assist them during their employment.

We encourage applicants to declare their disabilities in order that any special arrangements, particularly for the selection process, can be accommodated. Applicants or employees can declare a disability at any time.

Applicants wishing to discuss with or inform the University of any special arrangements connected with their disability can contact, at any point in the recruitment process, Keith Hoddy who is responsible for recruitment to this position. Keith Hoddy can be contacted by email at kh446@medschl.cam.ac.uk or by telephone on 01223 741380.

For additional guidance and information, applicants can contact the HR Business Manager who is responsible for the department they are applying to via hrenquiries@admin.cam.ac.uk.