Candidate Information

Position:	Research Fellow in Epigenetics
School/Department:	Centre for Experimental Medicine
Reference:	19/107388
Closing Date:	Thursday 30 May 2019
Salary:	£33,199 - £39,610 per annum (potential to progress to £43,266 per annum through sustained exceptional contribution)
Duration:	3 years

JOB PURPOSE:

To be a highly productive, ambitious and collaborative member of the Gene Regulation Group led by Dr. Vijay Tiwari in the Centre for Experimental Medicine.

The position will contribute to internationally competitive research on epigenetic regulation of cell-fate specification during development. The group employs high-throughput genomics assays and cutting-edge epigenetics and molecular biology tools in combination with stem cell biology and neurobiology. The resulting datasets are analysed using computational and systems biology approaches to generate a comprehensive model of epigenetic regulation of gene expression during embryonic development. The successful applicant will have responsibilities in independent research, supervision, planning, day-to-day lab management, collaborations and outreach.

MAJOR DUTIES:

1. Develop, plan and deliver an area of personal research and expertise, and/or undertake research under supervision within a research programme aimed at understanding gene regulatory networks underlying neurogenesis and epithelial to mesenchymal transition. Techniques will include in vivo and in vitro experimental models, epigenetics and genomics experiments. The following publications from Tiwari lab can be referred to for learning about the ongoing research program and assess a fit: Cell Stem Cell 2018, 23(4):557; Nature Communications 2017; 15;8(1):1523; The EMBO Journal, 2016,35(1):24-45; Genome Research, 2015;25(9):1309-24; The EMBO Journal 2015, 13;34(16):2162-81; Nature Communications 2013, 4:2478; Cancer Cell 2013, 23, 768-783; PNAS 2012, 17;109(16):E934-43; Nature Genetics, 2012, 18;44(1):94-100; Nature, 2011, 480(7378):490-5.
2. Develop and implement, with support, a highly ambitious personal career development plan in the course of the post.
3. Maintain up-to-date knowledge of the field of interest at the cutting edge and communicate same to the group.
4. Carry out analyses, critical evaluations and interpretations of experimental data and the literature using methodologies and other techniques appropriate to area of research.
5. Present regular progress reports on research to members of the research group, other groups within the Centre/University, to external audiences nationally and internationally to disseminate and publicise research findings.
6. Prepare, often in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.
7. Assist grant holder in the preparation of funding proposals and applications as well as project progress reports to external bodies.
8. Prepare competitive applications for own funding such as travel grants, project grants and fellowship applications.
9. Carry out routine administrative tasks associated with the research projects/group to ensure that projects are completed on time and within budget and that the group functions efficiently. These might include organisation of project/group meetings and documentation, financial control, stock management/procurement, risk assessment of research activities and development of SOPs. Carry out routine administrative tasks associated with the day-to-day running of the research group in a communal lab setting.
10. Participate, and in some cases lead outreach activities on behalf of the group/Centre.

11. Participate in local research-related activities such as journal clubs, training sessions, seminar series etc.
12. Assist in assessment of research communications and data, particularly within the group.
13. Additional research and/or laboratory related duties including outreach activities, within the general range of the post and competence of post holder.

Planning and Organising:

1. Plan for specific aspects of research programme. Timescales range from 1-18 months in advance and may contribute to overall research group planning.
2. Plan for access to, and use of, research resources, laboratories and workshops where appropriate.
3. Plan own day-to-day activity within framework of the agreed research programme as well as communal activities (e.g. meetings) were appropriate.
4. Coordinate and liaise with other members of the research group and collaborative research groups regarding work progress and stock management.
5. Assist in training other group members on effective planning and organisation.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner including liaising with vendors and collaborators.
2. Provide guidance as required to support staff and any post-graduate/under-graduate students and visiting researchers who may be assisting with work of the group.

Internal and External Relationships:

1. Liaise on a regular basis with supervisor, colleagues, students and collaborators.
2. Communicate appropriately and effectively with lab colleagues topics such as latest research findings/results within the group and field.
3. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
4. Travel to, and present at scientific meetings and work in collaborative laboratories when necessary.
5. Join external networks to share information and ideas and help develop and maintain external collaborations, as appropriate.
6. Contribute to the School/Centre outreach programme.

ESSENTIAL CRITERIA:

1. Have a PhD in molecular biology, epigenetics, biochemistry or developmental biology.
2. 3 years' recent relevant work experience.
3. Experience in basic molecular biology techniques to include minimum of three of the following:
   - immunoprecipitation assays
   - Loss and gain of function experiments
   - Cloning
   - mammalian cell culture
   - immunohistochemistry
   - flow cytometry
   - immunofluorescence assays
4. Methodical approach to project management and meticulous in regards to experimental procedures and record keeping.
5. Highly ambitious, motivated, efficient, organised and show a commitment to, and interest in, research topic.
6. Competent in maintaining knowledge of cutting-edge of field of expertise.
7. Competent in giving effective and informative oral and poster presentations.
8. Competent in communicating stipulated research skills essential to the post in CV/job application.
9. Strong ability to work from own initiative.
10. Excellent team working skills in multiple internal and external team settings.
11. Leadership qualities.
12. Excellent problem-solving skills.
13. Irregular hours including evening, weekend and other out-of-hours working will be a component of the research at times.
14. Must be willing to travel to national and international meetings and collaborative laboratories.

DESIRABLE CRITERIA:

1. Experience in gene regulation.

2. Experience in epigenetics or genomics experiments.
3. Research project management.
4. Up-to-date knowledge in the field of gene regulatory mechanisms underlying cell-fate decisions.
5. Experience working in outreach settings.