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| Job Description and Person Specification (HR5)  Post Number: 5441-11-F | | | | | | |  | | | | | |
| **Job Description** | | | | | | | | | | | | |
| School/Department: | School of Biological Sciences | | | | | | | | | | | |
| Post Title: | Postdoctoral Research Fellow: Bioinformatics | | | | | | | | | | | |
| Please enter Level under appropriate Career Pathway | ERE | TAE | | | | MSA | | | CAO | | R.Nurse | Clinical | |
| 4 |  | | | |  | | |  | |  |  | |
| ERE Category | Academic Posts | | | | | | | Non-Academic Posts | | | | |
| Academic  (mixed) | | Research  only | | Teaching  only | | | Enterprise | | Education Development | | |
|  |  | | ✓ | |  | | |  | |  | | |
| Posts Responsible to (and Level): | | | | Principal Investigator (Level 5) | | | | | | | | |
| Posts Responsible for (and Level): | | | |  | | | | | | | | |
| Job Purpose:  To undertake research in accordance with a research project defined by the BBSRC funded project “Integrated *in silico* prediction of protein interaction motifs using interactome networks and high-resolution 3-dimensional structures”, under the supervision of the Principal Investigator. | | | | | | | | | | | | |

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| Key Accountabilities/Primary Responsibilities   * To develop and carry out research to achieve the deliverables according to the project defined in the project grant. This will include (1) development and large scale application of computational tools/pipelines (75%); (2) development of online resources for the research community, including webservers and databases (25%). * To conduct critical evaluation and interpretation of data to produce research results for the Principal Investigator. To work independently to plan own research programme and to time manage the project. To maintain complete and accurate records of experimental data in accordance with the Research Conduct and Academic Integrity guidance of the School of Biological Sciences. * To disseminate findings in the preparation of publication materials for refereed journals, presenting results at conferences and contributing findings to public repositories, such as the Eukaryotic Linear Motif (ELM) database, throughout the life of the project. * To maintain an awareness of scientific literature relevant to the research project and keep abreast of latest developments in the field and communicate findings to the academic team. * To contribute to the overall activity of the Research Group by attendance at and presentation to internal seminar programmes and workshops and to engage in collaborative interaction with other research groups in the University or other institutions. To assist with supervision of postgraduates and undergraduate project students. | % Time  65%  10%  10%  5%  10% |
| Internal & External Relationships: (nature & purpose of relationships)   * Principal Investigator for guidance and supervision * Collaborators in Barcelona, Dublin and Heidelberg * Other staff in the School of Biological Sciences | |
| Special Requirements:   * Be available to participate in a number of collaborative visits to other European countries (Spain, Ireland and Germany) during the life of the project, including two weeks visiting a collaborating group in Barcelona. * Be available to attend national and international conferences and meetings for the purpose of disseminating research results, fostering collaborations, briefing collaborative partners and for personal career development. * Be willing to collaborate with and promote interaction with other researchers in associated disciplines. | |

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| **Person Specification** | | | |
| **Criteria** | **Essential** | **Desirable** | **How to be assessed** |
| Qualifications, Knowledge and Experience:  Degree in Biology, or related subject (e.g. biochemistry, molecular biology, genetics), or Computer Science.  PhD in computational biology or molecular biology.  Masters, PhD or postdoctoral experience of bioinformatics, including writing and debugging programs.  Programming experience in at least one commonly used programming language (Python/Perl/Java).  Experience of protein sequence analysis and/or network biology.  Experience using (and/or willingness and aptitude to learn) Python.  Working knowledge of database programming (e.g. MySQL)  Web development skills (e.g. Javascript, PHP, HTML)  Experience using Highly Parallel Computing (HPC)  Knowledge of protein-protein interactions, intrinsically disordered proteins and protein signalling pathways  Previous publications appropriate to level of experience | ✓  ✓  ✓ | ✓  ✓  ✓  ✓  ✓  ✓  ✓  ✓ | Qualification  Qualification  CV, interview and referees  CV, interview  CV, interview and referees  CV, interview  CV, interview  CV, interview  CV, interview  CV, interview and referees  CV, output |
| Planning and Organising:  Able to organise own research activities to deadlines and quality standards | ✓ |  | CV, interview and referees |
| Problem Solving and Initiative:  Able to develop understanding of complex problems and apply in-depth knowledge to address them  Able to develop original techniques/methods |  | ✓  ✓ | CV experience and interview |
| Management and Teamwork:  Have a positive attitude to colleagues and students. Aptitude to develop a close, productive working relationship with Principal Investigator. | ✓ |  | CV, experience, interview, referees |
| Communicating and Influencing:  Excellent verbal and written English language skills.  Able to communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience  Ability to communicate biological problems to computer scientists and visa versa.  Able to present research results to Principle Investigator, at group meetings and conferences  Evidence of enthusiasm and motivation for the project and its outcomes  Able to write up research results for publication in leading peer-viewed journals | ✓  ✓  ✓  ✓  ✓ | ✓ | CV, interview, references  CV, output  CV, interview, references  CV, output  CV, interview  CV, references |
| Other Skills and Behaviours:  High-level computing expertise | ✓ |  | CV, references |
| Special Requirements:   * Be available to participate in a number of collaborative visits to other European countries (Spain, Ireland and Germany) during the life of the project, including two weeks visiting a collaborating group in Barcelona. To represent the University and research group during these visits. * Be available to attend national and international conferences and meetings for the purpose of disseminating research results, fostering collaborations, briefing collaborative partners and for personal career development. | ✓  ✓ |  | CV and interview  CV and interview |

**Job Hazard Analysis Form - Appendix to Job and Person Specification**

Please tick **one** of the following statements:

|  |  |
| --- | --- |
| This post is an office-based job with **routine** office hazards e.g. use of VDU (if ticked, no further information needs to be supplied) | **✓** |
| This post has **some hazards other than routine office** e.g. more than use of VDU |  |

Please tick all those that apply, and put N/A if not applicable

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| **Environmental Exposures** | **O\*** | **F** | **C** |
| Outside work | n/a |  |  |
| Extremes of temperature (eg fridge/ furnace) | n/a |  |  |
| Potential for exposure to body fluids ## | n/a |  |  |
| Noise (greater than 80 dba - 8 hrs twa) ## | n/a |  |  |
| Exposure to hazardous substances (eg solvents, liquids, dust, fumes, biohazards).  Specify: **general hazardous laboratory reagents, such as azide, solvent use including dimethyformamide, phenol** | n/a |  |  |
| Frequent hand washing | n/a |  |  |
| Ionising radiation | n/a |  |  |
| **Equipment/Tools/Machines used** |  |  |  |
| Food Handling ## | n/a |  |  |
| Driving university vehicles(e.g. car/van/LGV/PCV) ## | n/a |  |  |
| Use of latex gloves (note: prohibited unless specific clinical necessity) ## | n/a |  |  |
| Vibrating tools ( e.g. strimmers, hammer drill, lawnmowers) ## | n/a |  |  |
| **Physical Abilities** |  |  |  |
| Load manual handling | n/a |  |  |
| Repetitive Crouching/Kneeling/Stooping | n/a |  |  |
| Repetitive Pulling/Pushing | n/a |  |  |
| Repetitive Lifting | n/a |  |  |
| Standing for prolonged periods | n/a |  |  |
| Repetitive Climbing i.e. steps, stools, ladders | n/a |  |  |
| Fine motor grips (e.g. pipetting) | n/a |  |  |
| Gross motor grips | n/a |  |  |
| Repetitive reaching below shoulder height | n/a |  |  |
| Repetitive reaching at shoulder height | n/a |  |  |
| Repetitive reaching above shoulder height | n/a |  |  |
| **Psychosocial Issues** |  |  |  |
| Face to face contact with public | n/a |  |  |
| Lone working | n/a |  |  |
| Shift work/night work/on call duties ## | n/a |  |  |

**O – Occasionally** (up to 1/3 of time)**; F – Frequently** (up to 2/3 of time)**; C – Constantly** (more than 2/3 of time) ## denotes to HR the need for a full PEHQ to be sent to all applicants for this position.

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| **FOR SCHOOL/SERVICE USE ONLY** | ResourceLink Post Number | | | |
| Which post does this job report to | For MyView hierarchy  Maureen Smith  BJ02001 081 | | | |
| Is this post a Line Manager? | Yes |  | No | X |
| If yes, which posts directly report into it? | ResourceLink Post Number | | | |
| Post 1 |  | | | |
| Post 2 |  | | | |
| Post 3 |  | | | |
| Post 4 |  | | | |
| Post 5 |  | | | |
| Post 6 |  | | | |
| Post 7 |  | | | |
| Post 8 |  | | | |
| Please add additional rows as required | | | | |