

Job Description: Research Assistant

Faculty:	FMHLS
Department/Subject:	Medical School
Salary:	Grade 7 £34,132 to £38,249 per annum together with USS pension benefits
Hours of work:	35 per week (1.0 FTE)
Number of positions:	1
Contract:	This is a permanent/fixed term position for 12 months duration
Location:	This position will be based at the Singleton Campus

Main Duties	<ol style="list-style-type: none"> 1. Culture, differentiate, and gene-edit iPSC-derived cortical neurons (NGN2-overexpressing lines). Co-culture with astrocytes with different APOE genotype. iPSC lines from Jackson Labs. 2. Perform CRISPR/Cas9 FAR1 knockout and validate edits via RT-qPCR, Western blot, and sequencing. 3. Conduct ICC/IF and fluorescence/confocal imaging of neurite and synaptic markers; analyse via automated pipelines (neurite outgrowth and synapse assembly assays). 4. Conduct lipidomics analysis of neuronal extracts. 5. Perform MEA electrophysiology and vesicle recycling assays (FM4-64). 6. Test plasmalogen precursors and assess functional restoration. 7. Assist in data integration, visualisation and preparation of publications and reports.
	<ol style="list-style-type: none"> 8. Pro-actively contribute to and conduct research, including gather, prepare and analyse data, generate original ideas and present results. 9. Prepare reports, draft patents and papers describing the results of the research, both confidential and for publication. 10. Be self-motivated, apply and use their initiative, aiming to determine suitable ways to tackle challenges and seeking guidance when needed. 11. Interact positively and professionally with other collaborators and partners within the Faculty and elsewhere in the University and beyond as appropriate such as in industry/commerce, public organisations, hospitals and academia. 12. Contribute to Faculty organisational matters in order to help it run smoothly and to help raise its external research profile. 13. Keep informed of developments in the field in technical, specific and general terms and their wider implication for the discipline area, commercial applications and the knowledge economy. 14. When requested act as a representative or member of committees, using the opportunity to extend their own professional experience. 15. Demonstrate and evidence own professional development, identifying development needs with reference to the Vitae Researcher Development Framework, particularly with regard to probation, PDR and participation in training events. 16. Maintain and enhance links with the professional institutions and other related bodies. 17. Observe best-practice protocols in maintenance and retention of research records as indicated by HEI and Research Councils records management guidance. This includes ensuring project log-book records are deposited with the University/Principal Investigator on completion of the work.
General Duties	<ol style="list-style-type: none"> 18. To promote equality and diversity in working practices and maintain positive working relationships. 19. To conduct the job role and all activities in accordance with safety, health and sustainability policies and management systems, in order to reduce risks and impacts arising from the work activity. 20. To ensure that risk management is an integral part of any decision making process, by ensuring compliance with the University's Risk Management Policy. 21. Any other duties as agreed by the Faculty / Directorate / Service Area.
Person Specification	<p>Essential criteria:</p> <ol style="list-style-type: none"> 1. A Degree in Neuroscience, Biochemistry or a related field

	<ol style="list-style-type: none"> Evidence of the ability to actively engage in and contribute to writing and publishing research papers, particularly for refereed journals. A demonstrable ability to conduct research in line with the objectives of the project. Evidence of planning skills to contribute to the research project. Experience in iPSC culture, neuronal differentiation, and/or gene editing highly desirable. Experience in protein/RNA/DNA extraction, immunoblotting (WB), lipidomics, ICC/IF, or MEA is beneficial. Good oral communication skills Ability to work within a team in a collaborative environment A commitment to continuous professional development <p>Desirable Criteria</p> <ol style="list-style-type: none"> A PhD in Neuroscience/Neurochemistry/Biochemistry or a related field First author publications to demonstrate the track record in research A few years of postdoctoral experience in the field of neuroscience.
Welsh Language Level	<p>Level 1 – ‘a little’ - pronounce Welsh words. Able to answer the phone in Welsh (good morning / afternoon). Able to use very basic every-day words and phrases (thank you, please etc.). Level 1 can be reached by completing a one-hour training course.</p> <p>For more information about the Welsh Language Levels please refer to the Welsh Language Skills Assessment web page, which is available here.</p>
Additional Information	<p>Informal enquiries may be made to Dr Roberto Angelini via e-mail roberto.angelini@swansea.ac.uk</p>

