

Job Description: Research Assistant

Faculty:	FHMLS
Department/Subject:	Medicine
Salary:	Grade 7: £34,610 to £38,784 per annum (plus dedicated KTP training budget)
Hours of work:	35
Number of positions:	1
Contract:	Fixed term position until 31st August 2028
Location:	This position will be based at KURK Biosciences Lab, Mill Farm Business Park, Twickenham TW1 4RJ, With regular periods at Singleton Campus, Wales UK

Main Duties	1. Develop and validate in-vitro digestion models using INFOGEST 2.0 consensus protocols to simulate the gastrointestinal fate of KURK's micellar curcumin formulations 2. Characterise nano-emulsion stability, particle size distribution, and encapsulation efficiency using dynamic light scattering (DLS), zeta potential measurement, and related physicochemical techniques 3. Perform LC-MS analytical work for curcumin metabolite identification (curcumin, curcumin-O-glucuronide, curcumin-O-sulphate) and develop validated quantification methods 4. Establish Caco-2 intestinal permeability models to measure transepithelial absorption and compare KURK's micelle delivery against standard curcumin, liposomal, and piperine-enhanced formulations 5. Design and execute cell-based anti-inflammatory efficacy studies including NF-κB activation assays, cytokine profiling (TNF-α, IL-6, IL-1β), and 3D tissue models 6. Author at least two peer-reviewed publications in collaboration with the Swansea academic team 7. Create comprehensive SOPs and train the KURK production and quality team in evidence-based analytical workflows 8. Translate scientific findings into regulatory-ready documentation and commercially actionable claims 9. Pro-actively contribute to and conduct research, including gather, prepare and analyse data, generate original ideas and present results. 10. Prepare reports, draft patents and papers describing the results of the research, both confidential and for publication. 11. Be self-motivated, apply and use their initiative, aiming to determine suitable ways to tackle challenges and seeking guidance when needed.
	12. 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. 13. Contribute to Faculty organisational matters in order to help it run smoothly and to help raise its external research profile. 14. 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. 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	1. To promote equality and diversity in working practices and maintain positive working relationships. 2. 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. 3. To ensure that risk management is an integral part of any decision making process, by ensuring compliance with the University's Risk Management Policy. 4. Any other duties as agreed by the Faculty / Directorate / Service Area.
Person Specification	Essential criteria: 1. MSc in pharmaceutical science, nanomedicine, biochemistry, analytical chemistry, cell biology, pharmacology, or a closely related biomedical discipline 2. Hands-on experience with cell culture techniques (mammalian cell lines, aseptic technique, viability assays) 3. Practical analytical chemistry skills, ideally including HPLC or LC-MS sample preparation and method development 4. Understanding of nano-scale drug delivery systems, including micelles, liposomes, or nano-emulsions 5. Strong scientific writing ability and a clear trajectory towards peer-reviewed publication 6. Ability to work independently across two sites, manage your own workload, and communicate effectively with both academic researchers and commercial teams Desirable Criteria 7. Familiarity with Caco-2 permeability models or INFOGEST digestion protocols 8. Familiarity with inflammation-related assays (NF-κB reporters, ELISA cytokine panels) 9. Familiarity with DLS, zeta potential, or other nanoparticle characterisation techniques 10. Knowledge of nutraceutical or functional food regulatory frameworks (EFSA, MHRA) 11. Published research in a relevant field 12. Experience working in an SME or start-up environment alongside academic research
Welsh Language Level	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. For more information about the Welsh Language Levels please refer to the Welsh Language Skills Assessment web page, which is available here.
Additional Information	Swansea University Medical School is delighted to offer this Innovate UK funded Knowledge Transfer Partnership Associate role, in partnership with KURK, a fast-growing biotech company transforming the way the world consumes curcumin. Kurk has a proprietary natural micelle delivery technology, that achieves up to 185x better absorption than standard curcumin supplements. Founded by cancer survivors, Kurk sit at the intersection of plant science and pharmaceutical-grade evidence. The secured Knowledge Transfer Partnership with Swansea University Medical School, funded by Innovate UK, aims to embed world-class R&D capabilities within the KURK business. This is not a typical graduate role. It is a pivotal appointment that will define KURK's scientific credibility for years to come.

The opportunity. As the KTP Associate, you will be the first dedicated research scientist embedded within KURK. You will be employed by Swansea University directly, working under the academic supervision of Professor Lewis Francis, whose expertise in nanomedicine, 3D tissue modelling and inflammatory cell biology is internationally recognised. On the business side, you will be supported by an experienced team committed to translating scientific outputs into commercial advantage. Over 24 months, you will build KURK's autonomous analytical and biological testing capability from the ground up, covering the entire oral delivery pathway: from simulated digestion through cellular absorption to anti-inflammatory efficacy. By the end of the project, KURK will own validated, peer-reviewed methods, published data, and embedded SOPs that no competitor in the natural supplements space can match.

