

Job Description

Research Associate in Cancer Pharmacology
Institute of Social and Health Care



Brief summary of the role

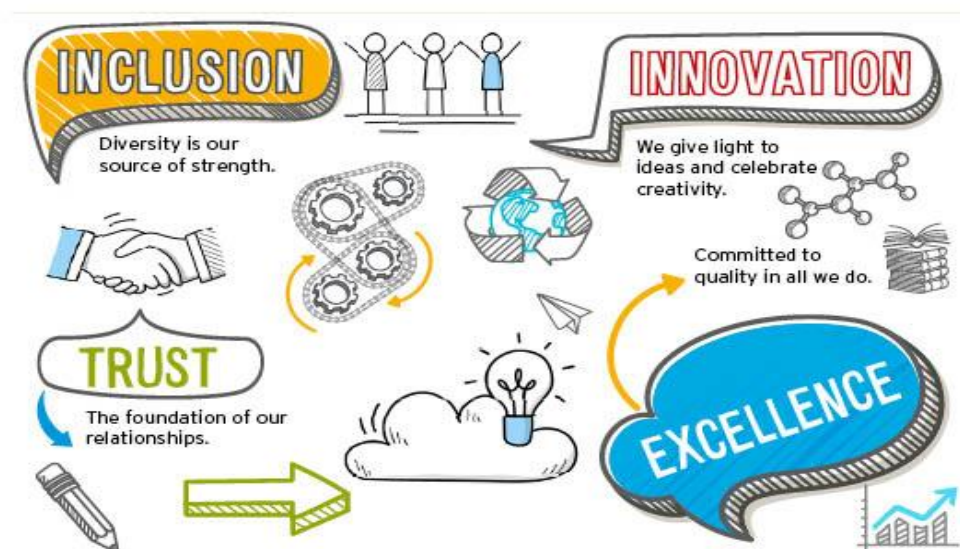
Faculty or Directorate:	Institute of Social and Health Care
Service or Department:	Institute of Cancer Therapeutics Pharmaceutical Science
Location:	City Campus
Reports to:	Dr Francis Mprah Barnieh
Responsible for:	
Work pattern:	Normal Working hours

About the University of Bradford

Values

At the University of Bradford, we are guided by our core values of Excellence, Trust, Innovation, and Inclusion. These values shape our approach and our commitment to making diversity, equity, and inclusion part of everything we do – from how we build our curriculum to how we build our workforce. It is the responsibility of every employee to uphold the university values.

Equality, Diversity, and Inclusion (EDI)



We foster a work environment that's inclusive as well as diverse, where staff can be themselves and have the support and adjustments to be successful within their role.

We are dedicated to promoting equality and inclusivity throughout the university and have established several networks where individuals can find support and safe places fostering a sense of belonging and acceptance. We are committed to several equality charters such as Athena Swan, Race Equality Charter, Disability Confident and Stonewall University Champions Programme.

Health, safety, and wellbeing

Health and Safety is a partnership between employee and employer each having responsibilities, as such all employees of the University have a statutory duty of care for their own personal safety and that of others who may be affected by their acts or omissions.

It is the responsibility of all employees that they fulfil a proactive role towards the management of risk in all of their actions. This entails the risk assessment of all situations, the taking of appropriate actions and reporting of all incidents, near misses and hazards.

Managers should note they have a duty of care towards any staff they manage; academic staff also have a duty of care towards students.

All colleagues will need to ensure you are familiar with any relevant Health and Safety policies and procedures, seeking advice from the Central University Health and Safety team as appropriate.

We are registered members of the University Mental Health Charter. This visibly demonstrates our commitment to achieving cultural change in student and staff mental health and wellbeing across the whole university, whilst supporting the vision of our People Strategy to create a culture and environment of transformational diversity, inclusion and social mobility, creating a place where our values come to life and are evident in our approach.

Information governance

Employees have a responsibility for the information and records (including student, health, financial and administrative records) that are gathered or used as part of their work undertaken for the University.

An employee must consult their manager if they have any doubts about the appropriate handling of the information and records with which they work.

All employees must always adhere to data protection legislation and the University's policies and procedures in relation to information governance and information security.

Employees will be required, when and where appropriate to the role, to comply with the processing of requests under the Freedom of Information Act 2000.

Criminal record disclosures and working with vulnerable groups

Depending on the defined nature of your work and specialist area of expertise, the University may obtain a standard or enhanced disclosure through the Disclosure and Barring Service (DBS) under the Rehabilitation of Offenders Act 1974.

All employees of the University who have contact with children, young people, vulnerable adults, service users and their families must familiarise themselves, be aware of their responsibilities and adhere to the University's policy and Safeguarding Vulnerable Groups Act 2006.

The University is committed to protect and safeguard children, young people and Vulnerable Adults.

Suitable applicants will not be refused positions because of criminal record information or other information declared, where it has no bearing on the role (for which you are applying) and no risks have been identified against the duties you would be expected to perform as part of that role.

Role holder: essential and desirable attributes

Qualifications

Essential	• BSc or MSc in molecular biology, life sciences, pharmacology, biomedical science or a related subject area. • A level of English equivalent to level B1 on the Common European Framework of Reference (CEFR)*.
Desirable	PhD in biological, pharmaceutical, medical sciences or a related subject area

Experience, skills, and knowledge

Essential	• First-authorship publication in cell or molecular biology, cancer biology, pharmacology or a related discipline • Experience and expertise in laboratory research • Laboratory experience in cell and molecular biology, chemical biology, or related discipline • Experience in mammalian cell culture • Experience in compound screening and/or in vitro biological assays • Ability to evaluate and interpret scientific data • Experience in report and research paper writing • Ability, skills and confidence to communicate effectively in English, both orally and in writing, scientific and safety information to a variety of audiences and in a range of contexts • Knowledge of safe laboratory practice / COSHH procedures • Ability to assist in the supervision and/or assessment of research students and/or research staff within the Institute • IT literacy
Desirable	• Experience in molecular biology techniques to silence genes (siRNA, shRNA) • Knowledge and experience in cell and molecular biology experiments, including flow cytometry, IF microscopy, viability/cell cycle/apoptosis assays, COMET assays, qPCR, western blot. • Knowledge and experience of using Hypoxystation • Experience in HPLC and/or LCMS

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| | <ul style="list-style-type: none">• Experience in drug metabolism assays• Knowledge and experience of anti-cancer drug development• Excellent problem-solving ability• Develop new ideas from concept to application• Ability to independently manage a research project |
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Personal Attributes

Essential	• Motivation, drive and enthusiasm for research, and laboratory research in particular • Motivation, drive and enthusiasm to learn new techniques, specifically the synthesis of peptide-based therapeutics • Honesty, reliability and responsibility • Excellent presentation, organisation and time management skills, with flexibility to work out-of-hours when required • Ability to work independently as well as being a pro-active team member • Independent thinker • An understanding and commitment to the University's values regarding equality, diversity and inclusion • A commitment to continuing personal and professional development
Desirable	

Main purpose of the role

- This 12-month fixed-term research post, funded by a Wellcome award, will focus on advancing innovative cancer research and the development of new therapeutic approaches for hypoxic tumours.
- The main purpose of the role is to undertake laboratory-based research to develop novel targeted therapies for hypoxic tumours, contribute to the development of research proposals, and support the preparation of scientific publications and grant reports

Main duties and responsibilities

1. To conduct research aligned with the project objectives, specifically the biological evaluation of novel hypoxia-selective chemotherapeutics, including their potential combination with radiotherapy (full training will be provided).
2. Generate new hypotheses and execute insightful experiments to deliver the objectives of the research project and keep appropriate records of all work carried out.
3. Design, perform and analyse experiments following consultation with the Principal Investigator (PI).
4. Conduct laboratory-based investigations to biologically evaluate novel therapeutics in hypoxic cancer models, assessing their activity and mechanisms of action. This will include
 - Evaluate the efficacy and hypoxia selectivity of novel therapeutics across a panel of hypoxic 2D and 3D cancer models and assess therapeutic toxicity and selectivity in normal human cell models
 - Investigate in vitro pharmacokinetics of novel therapeutics of using validated LC-MS-based bioreductive assays and ex-vivo mouse plasma, liver and kidney models.
 - Characterise the molecular mechanisms of action of novel therapeutics using immunological assays, flow cytometry and gene-editing techniques.
 - Investigate the combinatorial potential of novel therapeutics with conventional chemotherapy and radiotherapy.
5. Analyse and interpret the results of research and generate original ideas based on outcomes and write up results of research.
6. Contribute to the preparation of proposals and applications to external bodies, e.g. for funding and contractual purposes.
7. Prepare project progress reports to summarise research findings for the PI and collaborators.
8. Attend weekly laboratory meetings and present research updates to the research group as required.

9. Complete all required safety and training courses, and comply with required safety, licensing, and ethical regulations at all times
10. Stay informed of current developments, use new research methods and technology and extend the research portfolio of the group.
11. Write up work for conference contributions and publication in peer-reviewed journals and to contribute to the writing of research grant applications.
12. Liaise with internal contacts within the School/Faculty (e.g. journal clubs) for the exchange of information and to form relationships for future collaboration.
13. Prepare risk assessments for all the lab procedures associated with the project.
14. Engage in continuing professional and personal development.
15. Undertake any other duties commensurate with the grade and nature of the post.