



Job title	Research Fellow (Title will be 'Research Associate' where an appointment is made before PhD is completed)	Job family and level	Research and Teaching Level 4 (Appointment will be Level 4 career training grade where an appointment is made before PhD has been completed)
School/ Department	School of Medicine/Translational Medical Sciences	Location	The East Midlands Campuses of the University of Nottingham

Purpose of role

This role offers an exciting opportunity to contribute to a cutting-edge research programme in brain tumour metabolomics and preclinical modelling, with a particular focus on mass spectrometry-based single-cell and spatial metabolomics. You will take a lead in developing research objectives, designing experimental strategies, and delivering key components of the project. You will be responsible for planning and conducting experiments using appropriate, state-of-the-art methodologies and for preparing high-quality outputs for publication in peer-reviewed journals.

You will work closely with a collaborative and multidisciplinary team led by the Professor of Molecular and Neuro-oncology whose research integrates neuro-oncology, metabolomics, and precision cancer biology. This environment provides excellent opportunities for scientific and career development.

You will have the opportunity to use your initiative and creativity to identify areas for research, develop research methods and extend your research portfolio.

The role is based in the School of Medicine, in collaboration with the School of Pharmacy. Both Schools recognise the importance of providing opportunities, structured support and encouragement to engage in professional development each year.

To find out more about the School of Medicine and School of Pharmacy please see our [website](#) and [further information leaflet](#).

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	Research Responsibilities: - To manage, plan and conduct your own research activity using recognised approaches, methodologies, and techniques within the research area. - To resolve problems, in meeting research objectives and deadlines in collaboration with others. - To identify opportunities and assist in writing bids for research grant applications. Prepare proposals and applications to both external and/or internal bodies for funding, contractual or accreditation purposes.	60 %



2	Engagement, Communication and Continuation Responsibilities: - To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs. - To collaborate with academic colleagues on areas of shared interest for example, course development, collaborative or joint research projects.	30 %
3	Teach, supervise, examine and personal tutoring: You are expected to make a contribution to teaching that is in balance with wider contributions to research and other activities.	10%
4	Other: Any other duties appropriate to the grade and level of the role	N/A

Person specification

	Essential	Desirable
Skills	- Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. - Ability to creatively apply relevant research approaches, models, techniques and methods. - Ability to build relationships and collaborate with others, both internally and externally. - High analytical ability to analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights. - Ability to assess and organise resource requirements and deploy effectively. - Tissue processing, cell culture, metabolite extraction, quantitation. - Knowledge of mass spectrometry-based technologies and their utility in single cell and tissue analyses.	- Experience in operating high-resolution mass spectrometry platforms - Advanced data analysis of mass spectrometry-based metabolomics including: - Proficiency in R-programming, or Compound Discoverer for data processing and visualisation - Multivariate analyses (e.g. PCA and OPLS-DA) - Metabolic pathway analysis (e.g. MetaboAnalyst) - Metabolite identification - Cell biology and tumour cell culture (2D, 3D models) - Cell dissociation from tissue and cell culture - Fluorescence-activated cell sorting - Working knowledge of R
Knowledge and experience	Some practical experience of applying the specialist skills and approaches and techniques required for the role.	Experience with multiple mass spectrometry characterisation techniques and instrumentation.



	• Experience in use of research methodologies and techniques to work within area.	• Experience with tandem mass spectrometry (MS/MS). • Experience in multi-disciplinary teams. • Previous success in gaining support for externally funded research projects. • Experience of developing new approaches, models, techniques or methods in research area.
Qualifications, certification and training (relevant to role)	• PhD or equivalent in metabolomics, analytical science, molecular/cellular biology or the equivalent in professional qualifications and experience in research area OR near to completion of a PhD.	





Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

Valuing people	Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
Taking ownership	Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
Forward thinking	Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
Professional pride	Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
Always inclusive	Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others

