Job title	Research Fellow in Image Analysis of Paediatric Brain Tumours (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 / Mental Health and Clinical Neuroscience	Location	Medical School, Queen's Medical Centre

Purpose of role

The purpose of this role will be to have specific responsibility for research, for developing research objectives and proposals for a research project focused on undertaking imaging analysis of MRI datasets from a clinical trial of children with ependymoma. You will implement radiomic analysis of scans in a large clinical trial dataset with existing detailed molecular phenotyping, and will work with our biostatistician to conduct a radiogenomic.analysis of the data. This analysis contributes to two ongoing studies of imaging in childhood ependymoma funded by the Children's Cancer and Leukaemia Group (CCLG). You will be expected to plan and conduct work using approaches or methodologies and techniques appropriate to the type of research and will be responsible for writing up your work for publication. In addition to addressing the study objectives,

You will join an established team, led by Professor Rob Dineen, academic paediatric neuroradiologist and co-lead for radiomics and clinical translation in the MR & Precision Imaging Theme of the NIHR Nottingham Biomedical Research Centre. The wider team includes a multidisciplinary group of researchers from the University of Nottingham Children's Brain Tumour Research Centre (CBTRC), the Sir Peter Mansfield Imaging Centre (SPMIC) and the Tessa Jowell Children's Brain Tumour Centre of Excellence at Nottingham University Hospitals NHS Trust.

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 School of Medicine recognise the importance of continuous professional development and therefore 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, its values, vision, teaching and research, please see our 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 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.	70 %

	• 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.	
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	20 %
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.	• Ability to communicate effectively with a lay audience, e.g. patient and parent groups.
Knowledge and experience	• Knowledge and experience of a variety of commonly-used image analysis tools, e.g. FSL, SPM, Freesurfer, etc. • Knowledge of the principles of lesion segmentation approaches and of radiomic analysis • Knowledge of commonly used medical image formats, including of DICOM and image format conversion strategies • Understanding of the principles of PPI/E in medical research • Experience of working in between organisations, e.g. collaborating with healthcare providers or industrial partners • Understanding of ethical and governance issues related to management and use of patient imaging data for research	• Experience of lesion segmentation on medical images • Experience of implementing radiomic analyses • Experience of dealing appropriately with patient imaging data, including anonymization, quality control, access, and organizing/storing of such data • Experience of participating in or organizing PPI/E events and creating materials aimed at a lay audience. • Previous success in gaining support for externally funded research projects. • Experience of developing new approaches, models, techniques or methods in research area.

	• Understanding of the principles of governance relating to management and handling of clinical data	
Qualifications, certification and training (relevant to role)	• PhD or equivalent in medical image analysis or closely related discipline OR near to completion of a PhD.	
Other	• Willingness to adopt the vision and values of the School of Medicine.	

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

Line manager

Professor of Neuroradiology

Role holder

Research Associate/ Research Fellow

Key stakeholder relationships

CBTRC teams members

SPMIC Team members

PhD / MSc / BMedSci students