

Lay Summary

BRAIN UK Ref: 22/013

The New Roads Team – Innovative approaches to curing Brain Tumours

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Despite decades of research, brain tumours remain one of the deadliest forms of cancer. This study is part of a larger project which firstly aims to understand the development of normal and malignant brain, and secondly aims to apply this knowledge to develop safe and effective neuroscience-based treatments.

We wish to study the complexity of brain tumours at the level of individual cells. This will help us understand which cells are unique to brain tumours and if brain tumours show similarities to specific regions of the brain during healthy development. To do this we will assess gene expression at the single cell level. We then hope to map where the important genes are expressed in normal and tumour brain tissue.

We expect to find different and new cell types by making comparisons to healthy and tumour datasets, this may also tell us what is unique to each tumour. These findings will help us understand how and why rare brain tumours originate during development.