

Lay Summary

BRAIN UK Ref: 18/003

Validation of prognostic markers and therapeutic targets in a large cohort of primary versus recurrent glioblastomas.

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Glioblastoma multiforme (GBM) is the most common and aggressive primary brain tumour. Most cases result in the tumour coming back (recurrence) which has driven a need to characterise the genetic changes associated with tumour recurrence to identify new and more effective treatments.

In our lab we have undertaken an initial study of the genetic profile of 10 tissue samples from primary and recurrent adult GBMs. We have used RNA-sequencing, a genome-wide sequencing technique that can reveal mutations in genes as well as changes in their activity/expression. Our results have identified several genes that may be responsible for tumour regrowth and resistance to standard therapy.

This study aims to extend our initial study to a wider number of samples and increase our understanding and characterising of the genes involved in tumour regrowth and resistance. This will inform the development of novel treatments.