**Lay Summary**

**BRAIN UK Ref: 15/015**

**Examining the genomic landscape of rare brain tumour types**

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Currently approximately 9,400 patients per year in the UK (based on 2011, CRUK statistics) are diagnosed with a brain, other central nervous system or intracranial tumour; with the incidence of diagnosis and death increasing. The overall 5 year survival rate is 18.8% compared with 50% across all cancers; with 5,200 patients per year in the UK dying of this disease in 2012 - equivalent to 14 people every day ( CRUK statistics). Brain, other CNS and intracranial tumours are also the most common cause of childhood death from cancer.

This research project aims to provide translational benefit to patients by studying the genetic landscape of rare, incurable childhood brain tumours and adult brain tumours to identify multiple genomic mutations in several pathways in brain tumour formation.

This may ultimately help clinicians with diagnosis and could also help to identify appropriate targeted treatments for these brain tumour types.

**Publications:**

| Date | Publication title |
|---|---|
| **2017** | DNA Methylation-Based Classification and Grading System for Meningioma: A Multicentre, Retrospective Analysis |
| **2021** | Prevalence of BRAFV600 in glioma and use of BRAF Inhibitors in patients with BRAFV600 mutation-positive glioma: systematic review |