

## Lay Summary

**BRAIN UK Ref: 15/001**

### **Intratumoural Heterogeneity in GBM**

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Glioblastoma is the most malignant primary brain tumour with only 10% of patients alive five years after diagnosis. Therefore, there is an urgent need for better understanding of these tumours in order to identify new treatments.

It is becoming increasingly clear that each patient's tumour is caused by different underlying mutations and thus there is a need for personalised molecular therapies, rather than the standard chemotherapy and radiotherapy that is currently available.

This study will examine the genetic changes within different parts of individual brain tumours and compare this with the different genetic changes that occur when the tumour regrows. This could hold the key to understanding the pathways that lead to tumour regrowth and resistance to current therapies and guide new treatment development.

#### **Publications:**

<b>Date</b>	<b>Publication title</b>
2015	<a href="#"><u>Current Challenges in Glioblastoma: Intratumour Heterogeneity, Residual Disease, and Models to Predict Disease Recurrence</u></a>
2019	<a href="#"><u>Clinically Actionable Insights into Initial and Matched Recurrent Glioblastomas to Inform Novel Treatment Approaches.</u></a>
2021	<a href="#"><u>Advanced Molecular Characterization Using Digital Spatial Profiling Technology on Immunooncology Targets in Methylated Compared with Unmethylated IDH-Wildtype Glioblastoma.</u></a>