

# BRAIN UK, the National Brain Tumour Bank Network Three Years On

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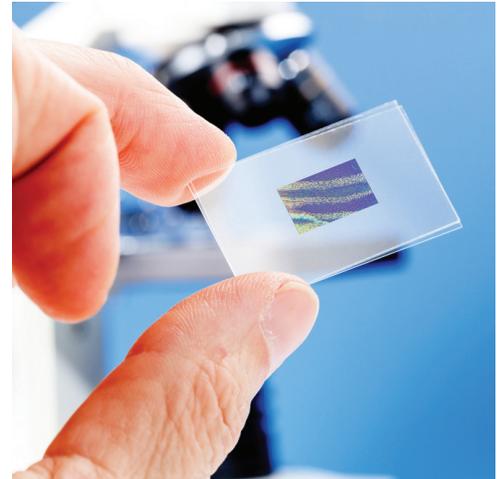
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Improved access to tissue should ultimately result in more research, translating into better outcomes for people with a brain tumour.

**B**rain tumour tissue can be difficult for researchers to access, yet National Health Service (NHS) Neuropathology archives contain a wealth of tissue. A review of NHS CNS biopsy archives revealed around 400,000 stored samples, accruing a further 18,500 annually. Simply trying to identify suitable tissue to help shape a study can pose challenges. In addition, the legal and ethical considerations required for approval to use human tissue can be difficult to new researchers and can prove time consuming.

## Method

BRAIN UK is a collaborative national virtual brain bank, facilitating access to under-utilised neuropathology archives for research. Initially funded by the MRC to facilitate access to post-mortem archives and two and half years ago expanded to include biopsies; supported by a group of brain tumour charities led by the brainstrust. 27/30 NHS Neuropathology centres participate in BRAIN UK, giving effective coverage of over 90% of UK population. A linked-anonymised database includes diagnosis and simple demographics. There is a centralised application process [www.brain-uk.org](http://www.brain-uk.org). BRAIN UK acts as a “matchmaker” and its generic ethical approval covers the majority of projects. Investigators’ grants fund the costs associated with the retrieval, processing and transportation of tissue.



The collaboration has unlocked thousands of previously hard to access brain tumour samples for researchers throughout the UK.

## Results

BRAIN UK utilises its generic ethical approval to reduce the time for researchers to achieve ethics; its network to obtain tissue; and its expertise and insight into potentially available tissue to help form scientifically valid studies. 24 of our studies have produced 45 platform presentations, 48 posters, 23 publications and 17 grants (generating over £1,300,000 income). We’ve supported over 110 interactions, these would either be between the NHS and university sector or between universities. All active studies, that were recently asked about the impact of on BUK on their project felt that BUK had a positive impact with 70% answering that they couldn’t have done their study without BUK.

31 tumour applications and 19 informal enquiries have been supported with over 3,600 tissue samples approved for release for research. Studies have encompassed a wide variety of tumour types utilising a number of techniques. Studies utilising large quantities or rare tumour types particularly highlight the success of this approach.

## Conclusion

Archived tissue that would otherwise be unused has supported valuable research. BRAIN UK is completely reliant on the co-operation and support of its Participating Centres. With plans to include a collaboration with UK Biobank, facilitating access to data, and encourage collaborations, BRAIN UK is advancing in to the future with aims to add value to neuroscience research.

