

BACKGROUND INFORMATION

What is the Samantha Dickson Brain Tumour Trust?

The Samantha Dickson Brain Tumour Trust (SDBTT) exists to find a cure for childhood and adult brain tumours through funding research, as well as offering support, hope and information to patients and their carers. The SDBTT has become the largest single funder of laboratory based brain tumour research in the UK.

They have been leading the fight against this terrible disease for 11 years; their vision is to find a cure for all brain tumours. Their aims, over the next three years, are to establish a world class research programme to see a step change in the desperate lack of funding for new treatments, to tackle the inequalities that brain tumour patients face in accessing promising new therapies and to increase the number of specialists working in the brain cancer field.

SDBTT was founded by Angela and Neil Dickson in memory of their only daughter, Samantha, who tragically died from a brain tumour in 1996 aged just 16 years old. Since then, they have grown from a memorial charity to becoming the largest brain tumour research charity in the UK. They employ 10 members of staff, have established a network of over 40 supporter groups across the country, have grown their annual income to over £1m for the first time, and have recently appointed their first CEO.

To date the charity has raised £6m. These funds have been used to fund 45 research projects.

How will the new Samantha Dickson Brain Cancer Unit make a difference?

The objective of the new Samantha Dickson Unit will be to fund a group of clinicians and scientists to lead translational research into the understanding and treating of brain tumours. The unit will have a unique network with the clinical brain cancer activities at University College London Hospital (UCLH), with the research programmes at University College London (UCL) Cancer Institute and the UCL Institute of Neurology.

This unique arrangement will establish a brain cancer programme which will contribute significantly to our understanding of the biology of brain cancer, have an international impact on brain cancer research and make laboratory discoveries which can be translated into clinical care.

It is hoped that UCLH will provide patients with clinical trials in an effort to develop new drugs and provide a constant source of new tumour samples. The recent acquisition of the state-of-the art intra-operative MRI (iMRI) and CT angiogram at UCL makes this one of the few centres internationally to have access to real-time imaging for brain tumours during surgery. This will improve and help the extent of surgical resection of tumours and provide a unique opportunity to improve our understanding of tumour behaviour after the operation and the impact of treatment on the tumours biology.

Are there any plans for more Samantha Dickson Brain Cancer Units?

There are plans to open two more centres of excellence in the next five years. SDBTT believes that the way forward for brain tumours is to create centres of excellence so that they can compete at the highest level for funding. It is hoped the new unit at UCL will obtain future research funding from the Medical Research Council (MRC) and Cancer Research UK (CRUK).

How much funding is currently available in the UK for research into brain cancer?

Currently brain tumour funding is incredibly low. Latest statistics show that the latest spend on cancer research is £348m each year. Of this, £127.8m is spent on specific cancer types, of which only 1% is spent on brain tumour research. It is no coincidence that the cancers which have seen the greatest improvement in survival rates - leukaemia and breast cancer – have had the largest share of the funding.

How is the unit being funded?

The Samantha Dickson Brain Cancer Unit is being funded as a joint partnership with UCL. UCL provides all the infrastructure costs and equipment, SDBTT provides the staff – clinical and scientific posts. Total investment is £5m (£2.5m each).

What kind of research is planned to take place at the unit?

Two examples are cancer genomics – research into small genetic differences between individuals could predict susceptibility for the developments of cancer. Genetic change between individuals can also predict how they will respond to specific therapies. Similarly, genetic mutations in cancer cells affect behaviour e.g. how aggressively the tumour behaves and its ability to invade surrounding tissues or to spread. This new information will provide the clinicians with new directions to develop more effective anti-cancer treatments.

The centre will also look at innovative experimental tumour models – this involves developing experimental models to study the behaviour of tumour cells in the laboratory, to image and track single transformed cells during early stages of tumour growth, and to develop functional screens to identify drug targets.