



## **BRAIN TUMOUR CHARITY UNVEILS PIONEERING TEST TO IMPROVE TREATMENT FOR CHILDHOOD BRAIN CANCER**

A British test which will revolutionise the approach to tackling childhood brain cancer and improve the quality of life for hundreds of sufferers, has been given approval to be introduced across Europe.

Researchers at Newcastle University, funded by the UK's largest brain tumour charity, the Samantha Dickson Brain Tumour Trust, have developed a test<sup>1</sup> for children who have been diagnosed with medulloblastoma, the most common malignant childhood brain tumour. It will allow doctors to determine a much more detailed understanding of the severity of a tumour, enabling more appropriate treatment options and a more accurate prognosis.

The test has just been approved for implementation in European clinical trials at a meeting in Vienna at the International Society for Paediatric Neuro-Oncology conference<sup>2</sup>. It is set to pave the way for the development of similar tests across other tumour types.

Chairman of the Trust, Neil Dickson, who was at the Vienna conference, says: "This is one of the biggest breakthroughs in the treatment relating to this tumour type. Over the next few years we will have three different treatment regimes which will aim to reduce side effects for one group of patients and increase survivability for the other groups. It is no exaggeration to say that our support has made the UK a very active paediatric brain tumour research centre. To see this research now benefiting patients is something we at the charity are very proud of and it is a tremendous legacy to our daughter Samantha."

Professor Steve Clifford, who led the research team at Newcastle University, said: "This test is incredibly significant in our understanding of this tumour type and it will lead to children being treated much more appropriately. Before now, sufferers have been treated in a uniform way. Now we will be able to tell which of the children are at a lower risk and have a much higher chance of survival. Those at low risk can be given less aggressive treatment, which could significantly diminish long term treatment side effects such as hearing loss, attention deficit and learning difficulties."

-Ends-

## Notes to editors

1. Research funded by the SDBTT at Newcastle University discovered in 2006 a biological marker, called beta-catenin, which picks out a low risk group of children with medulloblastoma. The survival rate for the 30% of children diagnosed with this marker was 92%, compared to 65% in cases without the marker.
2. Over the last year the SDBTT has also funded a feasibility study for the United Kingdom, led by the Newcastle team, to prove if newly diagnosed children can have their tumour biologically tested to see if they are in the low risk group prior to the start of their treatment. Eleven treatment centres throughout the UK have provided samples and it has been successfully demonstrated that the biological diagnosis can be achieved well within the 30 days prior to the start of radiotherapy. Following this successful project, all European countries at the ISPNO conference in Vienna have now agreed to start a clinical trial to test new treatment for this low risk group, starting in 2011. The Newcastle team, led by Professor Steve Clifford, has also identified biological markers which pick out a high risk group of patients, and more intensive treatments for this group of patients are currently being planned.

## **About The Samantha Dickson Brain Tumour Trust (SDBTT)**

Samantha Dickson Brain Tumour Trust SDBTT is the leading adult and childhood brain tumour charity dedicated to research and support in the UK. The charity's aim is to raise awareness, support and funds for brain tumour research to help fight this devastating disease and give hope to brain tumour patients in the future. It also offers support and information to patients and their carers.

The charity has been working to find a cure for brain tumours since it was set up in 1996 by Samantha's parents, Neil and Angela Dickson. Since then millions of pounds have been raised for brain tumour research and support services for patients and carers, and the charity has become the largest funder of brain tumour research in the UK.

More information on Samantha Dickson Brain Tumour Trust is available by calling 0845 130 9733 or visiting [www.braintumourtrust.co.uk](http://www.braintumourtrust.co.uk).

## **General Statistics**

Out of the £420million spent on cancer research in the UK, less than 1% is spent on brain tumour research.

6,500 people are diagnosed each year with a primary brain tumour.

3,400 people lose their lives to a brain tumour each year.

Despite being the biggest childhood cancer killer and causing more deaths among the under 40s than any other cancer statistics show that brain cancer has received a fraction of the funding of higher profile cancers. Statistics also show that high profile cancers have received up to 20 times the investment of brain cancer and have seen survival rates almost double in 30 years.

Often dubbed the 'forgotten cancer', the UK's brain cancer survival rates have barely changed in 30 years whereas other cancer types have seen clear improvements.

The average years of life lost (calculated from the shortening of life attributable to brain cancer, compared to life expectancy) to brain tumours is the highest of any cancer at over 20 years and is the biggest killer of adults under 40.

## **SDBTT Statistics**

Record year from 1<sup>st</sup> April 2009 – 31<sup>st</sup> March 2010

Record income of £1.4m for the year

Record research expenditure of £1m

Three major research breakthroughs:

University of Newcastle – our research team has pinpointed characteristics of Medulloblastoma tumours that could help to determine the severity of an individual child's cancer. A new project is now trialing a UK-wide system for testing tumour samples and will assess whether this could be used routinely to improve diagnosis and tailor treatment for individual patients.

Queen Mary University, London – our research team has made a major breakthrough with regard to the childhood brain tumour pilocytic astrocytoma. Research has identified certain genetic changes that are frequently found in these tumours, and which relate to a pathway that could be involved in the development of the tumour.

National Hospital University College London – for the first time in the UK adult high grade brain tumour patients are having a chromosome test on their tumour samples. The test identifies approximately one in three patients whose tumour is far more reactive to chemotherapy

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