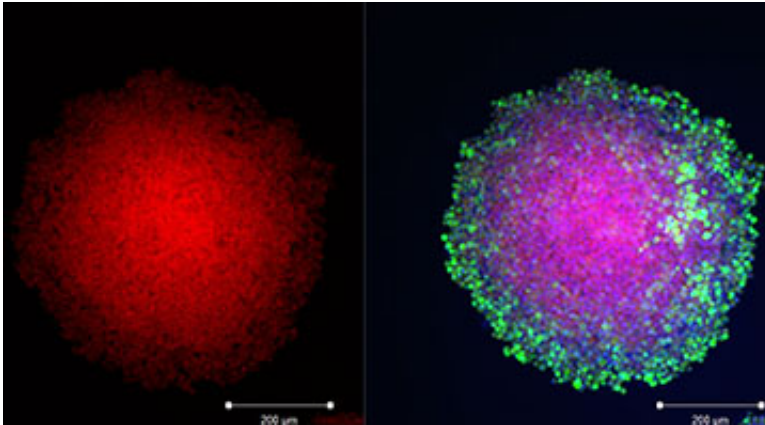


Breakthrough in brain tumour research

June 28 2016



Glioblastoma, one of the most aggressive forms of brain tumour, which kills thousands of patients within a year. Credit: Alison Howarth, therapeutics team at the Brain Tumour Research's centre of excellence, University of Portsmouth

A potentially ground-breaking scientific breakthrough with far-reaching consequences for future treatments of brain tumours is to be revealed at an international research meeting in Poland today.

Professor Geoff Pilkington and Dr Richard Hill, from the Brain Tumour Research Centre of Excellence at the University of Portsmouth, will present their research findings at the conference "Brain Tumours 2016 – From Biology to Therapy". Their group has been collaborating with Innovate Pharmaceuticals who have developed a novel formulation "IP1867B", combining reformulated aspirin with two additional ingredients, into a soluble form. Developing a true liquid aspirin has long

been a scientific goal, as "soluble" aspirins currently on the market are not completely soluble and still contain grains that cause gastric side effects.

Most significantly for patients with brain tumours, this new formulation significantly increases the ability of drugs to cross the blood brain barrier. This membrane serves to protect the brain but also blocks many conventional cancer drugs from reaching brain tumours. This research suggests that Innovate Pharmaceutical's IP1867B could be highly effective against glioblastoma (GBM), one of the most aggressive forms of the disease, which kills thousands of patients within a year.

The breakthrough came in laboratory tests on cancer cells from adults and children with brain tumours. In all the variations of drugs tested, including separating out the three key components of IP1867B, it was ten times more effective than any combination of other currently used drugs.

All three ingredients, which are already approved for use in the clinic, have been shown to kill tumour cells without having an effect on normal brain cells. Although the drug will now be further developed in pre-clinical models, more research will be needed before we know whether it will be suitable for patients in clinical trials.

Sue Farrington Smith, Chief Executive of Brain Tumour Research, said: "This is a potential game-changer for research into [brain](#) tumours and clearly shows what sustainable research is able to achieve. It is science like this that will enable us to eventually find a cure for this devastating disease which kills more children and adults under the age of 40 than any other cancer."

Provided by University of Portsmouth

Citation: Breakthrough in brain tumour research (2016, June 28) retrieved 28 April 2024 from <https://medicalxpress.com/news/2016-06-breakthrough-brain-tumour.html>

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