

Investigating cancer-fighting properties of cannabis-related chemical

September 28 2012

(Medical Xpress)—Chemicals similar to those found in cannabis form the basis of a new drug that is being trialled in UK cancer patients for the first time.

The trial – funded by Newcastle University spin-out company e-Therapeutics plc, who also manufacture the drug – will investigate its potential for treating patients with a variety of solid tumours.

The drug, called dexanabinol, is from a family of compounds called cannabinoids. It is chemically related to compounds found in cannabis plants, but is synthesised in the lab and lacks any cannabis-like [psychological effects](#).

Professor Ruth Plummer from Newcastle University, who is leading the trial, said: "The starting point for this trial was to map networks of proteins that appear to have a role in cancer, identify points at which these networks could be disrupted, and then see if there were existing drugs to target these points.

"It was this novel approach - known as network pharmacology - that first highlighted the potential cancer-fighting properties of dexanabinol, which was originally developed to treat patients with severe [head injuries](#) . While this certainly illustrates that there may be [compounds](#) with real therapeutic potential related to those found in cannabis, it also points to the importance of applying rigorous [scientific methods](#) when selecting molecules that might have potential as cancer treatments.

"This is a phase one trial, so the main aim will be to establish what dose is safe and assess any side effects. But we'll also be looking out to see what effect, if any, the drug has on the patient's cancer."

Around 45 patients are being recruited to take part in the trial at the Northern Centre for [Cancer Care](#) at the Freeman Hospital, part of Newcastle upon Tyne Hospitals NHS Foundation Trust, and St James's University Hospital in Leeds. All the participants will have advanced solid tumours that cannot be helped by further existing treatments.

The trials will involve researchers at the Cancer Research UK and National Institute for Health Research (NIHR) Experimental Cancer Medicine Centre in Newcastle.

Dr Joanna Reynolds, Cancer Research UK's director of centres, said: "The potential anticancer properties of chemicals found in cannabis were first touched on by scientists in the 1970s. But it's only now that we have robust laboratory evidence in place, alongside reliable techniques for manufacturing safe and practical drugs related to these chemicals, that we're at the crucial stage of being able to embark on trials in [cancer patients](#)."

"It's the job of the Experimental Cancer Medicine Network to help speed up the journey of new drugs from the bench to the bedside and we're delighted to be supporting some of the first steps towards hopefully turning this painstaking research into new treatments that could benefit patients."

A similar phase I trial is already underway in the US in brain cancer and results from both trials are expected during 2013.

Provided by Newcastle University

Citation: Investigating cancer-fighting properties of cannabis-related chemical (2012, September 28) retrieved 25 April 2024 from <https://medicalxpress.com/news/2012-09-cancer-fighting-properties-cannabis-related-chemical.html>

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