

Curry cooking ingredient could provide recipe for fight against cancer

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Scientists at the University of Leicester, funded by Hope Against Cancer, are pioneering the use of a common curry cooking ingredient to target cancer cells.

The research in the University Department of Cancer Studies and Molecular Medicine is making use of actual tissue from tumours extracted from patients undergoing surgery.

The aim is use tissue from the colorectal tumours to effectively target chemo-resistant cells using curcumin, an extract of the commonly used root turmeric.

Dr Karen Brown, a Reader at the University, is the principal investigator of this new research, which is also being led by Dr Lynne Howells, of the <u>Chemoprevention</u> and Biomarkers Group at the University.

Dr Brown said: "Following treatment for cancer, small populations of <u>cancer cells</u> often remain which are responsible for disease returning. These cells appear to have different properties to the bulk of cells within a <u>tumour</u>, making them resistant to chemotherapy.

"Previous laboratory research has shown that curcumin, from turmeric, has not only improved the effectiveness of chemotherapy but has also reduced the number of chemo-resistant cells which has implications in preventing the disease returning.



"We hope that our work will lead to a better understanding of the mechanisms through which curcumin targets <u>resistant cells</u> in tumours. It should also help us identify those patient populations who are most likely to benefit from curcumin treatment in the future."

Dr Howells added that funding from Hope Against Cancer, which funds research fellowships at the University, had been key to furthering the research:

"We are really grateful to Hope Against Cancer for this funding and excited that it allows us to expand our promising research on curcumin."

"It is thanks to a team of dedicated volunteers and fundraisers that we are able to fund exciting research here in Leicester," said Wendi Stevens, Hope Against Cancer.

ABOUT COLORECTAL CANCER

- Accounts for over 600,000 deaths a year
- The third leading cause of cancer deaths in the western world
- The risk of developing <u>colorectal cancer</u> increases with age
- Studies show that a diet high in red meat and low in fresh fruit, vegetables, poultry and fish increases the risk of colorectal cancer

ABOUT TURMERIC:

• Part of the ginger family



- Native to south Asia
- Orange/yellow powder is a spice for curries
- Curcumin has an earthy, peppery flavour
- It has been used for medicinal purposes for centuries
- Its potential use in Alzheimer's, arthritis and other disorders is also being investigated around the world

Provided by University of Leicester

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