

Targeting protein could lead to new treatments for mouth cancer

July 3 2012



(Medical Xpress) -- A protein that is overactive in mouth cancers and encourages tumours to grow could be a target for new treatments for the disease. The study is published in this week's *Cancer Research*.

Cancer Research UK scientists have found that the FRMD4A protein is permanently switched on in cancer, and the higher the levels the more likely the disease is to spread and return.

By blocking FRMD4A, the scientists were able to stop cancers growing and spreading, and increased survival of mice with the cancer.

Dr Stephen Goldie, who carried out this work at Cancer Research UK's Cambridge Research Institute, said: "What's really exciting about this research is that we already have potential drugs that can be used to target this protein or compensate for the effects that it is having.

"These drugs could offer new options to patients where surgery and chemotherapy hasn't worked or could be used alongside them. We now need to start trials with these treatments, but we hope this could make a real difference to people with mouth cancer in the future."

FRMD4A switches on a process that helps cancer cells group and stick together. When it is deactivated, this cell 'stickiness' is lost and ultimately causes cancer cells to die.

Lead author, Professor Fiona Watt, said: "We hope that our approach would be more effective and specific than treating the pathway that FRMD4A is involved in, but we now need to test new potential drugs to see if this will work in patients."

The researchers were looking at a particular type of [mouth cancer](#) – head and neck squamous cell carcinoma – which is an aggressive form of the disease.

Around 50 per cent of people with this type of cancer survive for at least five years, but despite new treatments and radical surgery this figure has not improved for the past 30 years.

Dr Julie Sharp, senior science information manager at Cancer Research UK, said: "This research offers a number of approaches that we can now explore to help treat these cancers, including blocking the [protein](#)

directly. These cancers often return and spread so it's vital we find new ways to treat them more effectively.”

More information: Goldie SJ (2012). FRMD4A Upregulation in Human Squamous Cell Carcinoma Promotes Tumor Growth and Metastasis and Is Associated with Poor Prognosis. Cancer research PMID: 22564525. [cancerres.aacrjournals.org/con ... /72/13/3424.abstract](https://cancerres.aacrjournals.org/con.../72/13/3424.abstract)

Provided by Cancer Research UK

Citation: Targeting protein could lead to new treatments for mouth cancer (2012, July 3) retrieved 5 May 2024 from <https://medicalxpress.com/news/2012-07-protein-treatments-mouth-cancer.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--