**DAILY MAIL**

**Scientists discover 'master switch' that stops cancer cells from growing**

By [Daily Mail Reporter](http://www.dailymail.co.uk/home/search.html?s=&authornamef=Daily+Mail+Reporter)  
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British scientists have discovered a new way to stop cancer in its tracks by manipulating a master switch responsible for cell growth.

The findings, published in the journal Cancer Cell, reveal how cancer cells grow faster by producing their own blood vessels.

Cancer cells gain the nutrients they need by producing proteins that make blood vessels grow, helping deliver oxygen and sugars to the tumour.

These proteins are formed by a process of different parts of genes slotting together.

Scientists from the University of the West of England (UWE) and Bristol University studied tissues removed from kidney cancer patients at Southmead Hospital.

They discovered that mutations in a specific cancer gene controlled the balance of this process, called splicing, and in turn managed to find a way of using drugs to switch it off.

This stopped the growth of cancers.

Dr Michael Ladomery, from UWE, cautioned that halting the process of growing cancer cells had only been tried in models so far.

He said: 'It is important to stress that this is basic research.

This could give encouragement that splicing can have a profound effect on tumour growth and encourages others to go down this particular path.'

Dr Ladomery said their research showed a similar process happened in eye disease and the discovery in Bristol could eventually lead to better treatments in that field too.

He said: 'The research clearly demonstrates that it may be possible to block tumour growth by targeting and manipulating alternative splicing in patients, adding to the increasingly wide armoury of potential anti-cancer therapies.'

Professor Steve Harper, consultant nephrologist and part of the research team, said:  'This shows how important it is for patients, doctors and scientists to come together in an excellent environment like Bristol to make these groundbreaking discoveries.'

The research was published in the journal Cancer Cell.

Read more: [http://www.dailymail.co.uk/health/article-2074049/Scientists-discover-master-switch-stops-cancer-cells-growing.html#ixzz2E5H50hiv](http://www.dailymail.co.uk/health/article-2074049/Scientists-discover-master-switch-stops-cancer-cells-growing.html" \l "ixzz2E5H50hiv)   
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SCIENTISTS have found a genetic "master switch" which can turn off the growth of cancerous cells.

They say mutations in the DNA of **cancer** control how parts of genes slot together to create proteins vital to tumour growth.

Researchers at the **Bristol** University and the University of the West of England found they could block the master switch with new drugs and prevent formation of blood vessels and **cancer** growth.

Dr Michael **Ladomery,** from UWE **Bristol,** said "We hope that it has ramifications for **cancers** such as breast, prostate and kidney.

"This research opens a new front in the battle against **cancer.** It is a novel new way to **target** tumours."

The research is published in **Cancer** Cell journal.

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