

Chemo drug uses cells' natural defense mechanism to slow cancer growth

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A type of [chemotherapy](#) drug appears to work by tricking cells into thinking they're infected with viruses, according to Canadian researchers studying [bowel cancer](#) cells.

The new research, [published in the journal Cell](#), overturns the previous view that these drugs switch off some of the genes responsible for cell growth.

The discovery suggests that the treatment, called a '[hypomethylating](#)' drug, could have wider uses. It could also lead to new combinations of existing therapies, and even the development of completely new drugs, the researchers say.

One of the drugs, decitabine, works by stripping a cell's DNA of tiny molecular tags, known as epigenetic tags.

This changes gene activity, causing cells to stop growing. But exactly which genes are affected has remained a mystery.

The researchers showed that, rather than directly affecting genes involved in cell growth, decitabine reawakened long-dormant viruses hidden in the human genome. This triggered the cell's anti-virus systems to halt cell growth.

Read full, original post: Chemo drug works by tricking cells into thinking they're infected