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**The Telegraph**

**Scientists bring cancer cells back under control**

A new treatment for cancer that renders malignant tumours "dormant" has been developed by scientists.

Researchers believe they have found a way of making malignant cancer cells benign, stopping them from spreading around the body and so threatening life.

The revolutionary approach works by switching back on the body's natural cancer suppressor genes that have been turned off by the disease.

While it does not reduce the tumour that is already formed it stops it spreading around the body.

The team at Nottingham University have tested the treatment on animals and have had a 100 per cent success rate and are now hoping to team up with a pharmaceutical company to develop it for humans.

The Research, published in the Journal Molecular Cancer, reveals how Dr Cinzia Allegrucci and Dr Andrew Johnson centres around reactivating tumour suppressor genes.

Ordinarily cell division is controlled by specific genes that kill or mend rogue or damaged cells.

But cancers occur when these go wrong – especially if tumour suppressor genes are for some reason turned off.

The team used a new technique that involves using proteins from salamanders that have been shown in the past to be able to switch on and off human genes.

When they were mixed with breast cancer cells, the team were amazed to find they reactivated the cancer suppression genes.

In mice given breast cancer, an injection of the proteins stopped the cancer in its tracks.

Now they want to isolate exactly what proteins were involved in "rebooting" the cells and reproduce them as a drug.

Nell Barrie, science information officer at Cancer Research UK, said: "It's becoming clear that cancer is driven not just by faulty genes but by changes in cells that help to switch genes on and off.

"This interesting new technique will shed light on how this process contributes to the disease, and further research could one day lead to new treatments that help to reverse these complex changes in cancer cells."