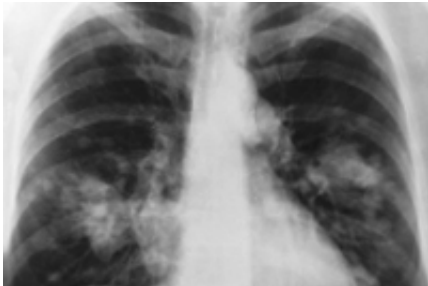


Experimental drugs for breast cancer could treat lung cancer too

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Cancer Research UK -funded scientists have discovered that experimental drugs first developed for breast and ovarian cancer could be used to treat the most common type of lung cancer, reveals research published in *Oncogene* today.

The study, led by scientists at The Institute of Cancer Research, London, showed how experimental drugs called PARP inhibitors could be useful in up to half of non-small-cell lung cancer (NSCLC) tumours with a fault in one of the ways cells repair damage to their DNA.

Adding PARP inhibitors to these [lung cancer cells](#) damages a second DNA damage repair system. This double blow kills the lung cancer cells, but leaves healthy cells unscathed.

Lung cancer is the most common cause of [cancer death](#) in the UK accounting for more than a fifth of all cancer deaths. More than eight out of 10 cases of lung cancer are [non-small-cell lung cancer](#) – more than 33,000 cases per year in the UK.

There are very few treatment options for patients with lung cancer. The few that are available have a limited effect, and there is an urgent need for new treatments.

Study author Dr Chris Lord, a Cancer Research-UK funded scientist at The Institute of Cancer Research (ICR), said: "This study suggests that PARP inhibitors – treatments already in clinical trials to treat breast and [ovarian cancer](#) – could also be a promising treatment for patients with certain forms of lung cancer.

"Lung cancer is hard to treat and unfortunately has very poor survival – so there's an urgent need to find new treatments. Our research opens up an exciting new route, by showing how we could repurpose drugs originally designed for use against other forms of cancer. We now need to build on this promising early research by testing PARP inhibitors against lung cancer in clinical trials to confirm whether they can benefit patients."

Dr Harpal Kumar, Cancer Research UK's chief executive, said: "Lung cancer is the UK's biggest cancer killer but it's proven to be one of the hardest cancers to study and survival rates remain poor.

"We're making substantial investments in lung cancer research to discover better ways to diagnose and treat the disease. Our hope is that studies like this will lead to more effective treatments for [lung cancer](#) patients and ultimately save more lives."

More information: Lord et al., A high-throughput Screen Identifies

PARP1/2 Inhibitors as a Potential Therapy for ECC1-Deficient Non-Small Cell Lung Cancer (2013) *Oncogene* [DOI: 10.1038/onc.2013.311](https://doi.org/10.1038/onc.2013.311)

Provided by Cancer Research UK

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