Discovering a new role for a breast cancer gene

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(Medical Xpress)—Researchers at the School of Biosciences have identified an unexpected role for a tumour-associated gene in breast cancer.

Previous studies using tumour cells grown in the laboratory had suggested that the gene, Bcl3, regulated tumour growth. However when the research team, led by Dr Richard Clarkson, looked at the effect of suppressing this gene in mammary tumours inside the body, they found that this had no effect on tumour growth, but instead prevented the tumours from spreading to other organs. This is significant because tumour spread (metastasis) is the major cause of death in breast cancer patients.

"We have identified an unexpected role for this gene in living tissues, which we would not have predicted from studies of cancer cells grown outside of the body." Dr Clarkson explained. "This approach has also revealed that suppressing this gene is not harmful to normal tissues, which makes Bcl3 a promising therapeutic target for breast cancer".

The results of this study, which have been reported in the leading cancer journal *Cancer Research*, has led the research team to develop novel pharmacological inhibitors of Bcl3. These inhibitors are currently undergoing pre-clinical tests to evaluate their potential as anti-cancer agents that could prevent the spread of cancer, in patients with aggressive forms of breast disease.

More information: www.ncbi.nlm.nih.gov/pubmed?term=Clarkson%20wakefield

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