

## CHIP enzyme suppresses breast cancer in mice

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### CHIPing away at cancer metastasis

Scientists have discovered that an enzyme called CHIP suppresses breast cancer. The research, published online in *Nature Cell Biology*, suggests that a target of the enzyme known as SRC-3 represents a promising new molecular target for this cancer.

Many solid tumours form metastases, where the cancer spreads from its site of origin – this is the main reason for therapeutic failure and cancer mortality. As such, there is a renewed focus on designing drugs that target molecular pathways required for metastasis.

Junn Yanagisawa, from the University of Tsukuba, Japan, and colleagues report that CHIP, which is known to degrade a number of cancer causing proteins, also acts to degrade the gene regulator SRC-3, which then suppresses tumour progression in breast cancer. In a mouse model, CHIP expression inhibited metastasis formation, while its deletion accelerated the process. Loss of CHIP leads to increased expression of a number of cancer associated proteins, causing cells to become invasive and to grow in an uncontrolled manner, both attributes of cancer cells.

Since SRC-3 accounts for the cancer suppressive role of CHIP, it presents a new therapeutic target for breast cancer.

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