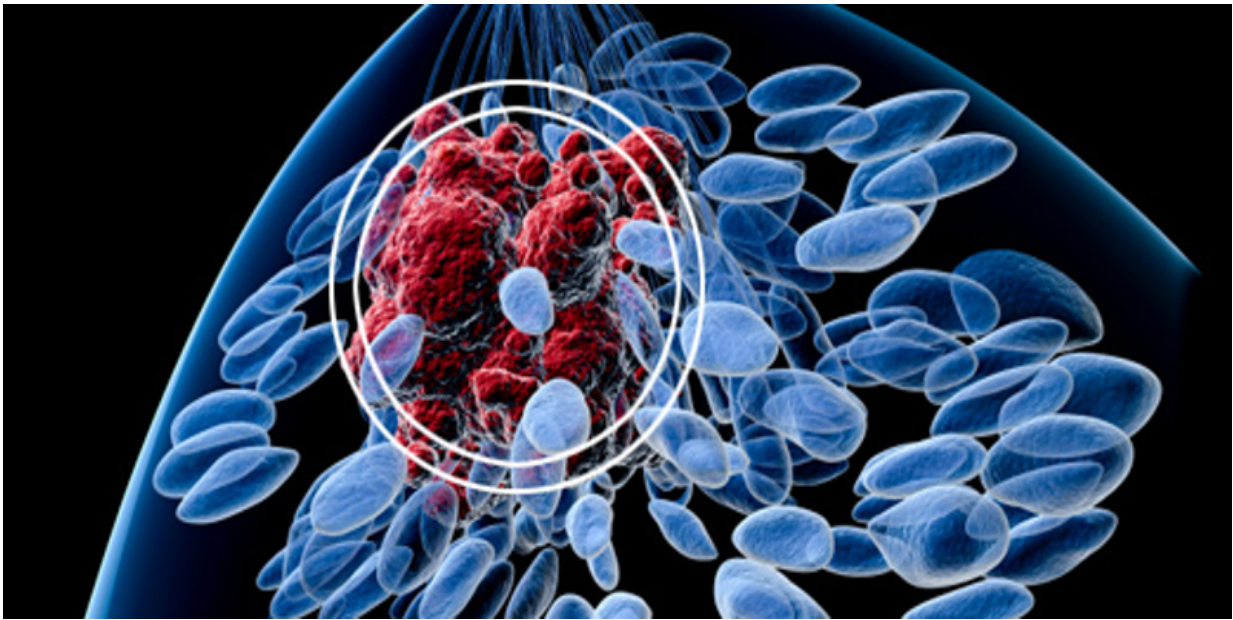


# Male breast cancer discovery could improve treatment

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Credit: University of Leeds

Two key proteins involved in male breast cancer have been identified by University of Leeds scientists, potentially paving the way for more effective treatments.

The research team, led by Professor Valerie Speirs in the School of Medicine, found that the two proteins – eIF4E and eIF5 – were present in male patients who were less likely to survive the [disease](#).

The discovery means that a simple additional test for the two proteins could now be developed, and then assessed, to determine whether adjusting treatment in men with high levels could improve their outcomes.

On average, 350 men will be diagnosed with [male breast cancer](#) every year in the UK and 80 men will die from the disease.

Dr Matt Humphries, lead author of the team's paper, published in the journal *Clinical Cancer Research*, said: "Currently, men with breast cancer are treated in exactly the same way as women.

"While some studies have been carried out into the disease in men, the numbers of samples examined have often been quite small.

"We screened [breast tumours](#) from hundreds of men to find out if their tumours expressed these proteins, and we found that a significant proportion of the men we tested had higher levels of these proteins.

"These men were almost two and a half times more likely to die from their disease than those who had low levels of the proteins."

The study – one of the largest ever conducted into male breast cancer – involved the analysis of more than 700 cases of the disease.

Yorkshire Cancer Research funded the study, and charity Breast Cancer Now helped fund the creation of the male breast cancer collection in addition to providing male breast cancer samples from the Breast Cancer Now Tissue Bank.

Dr Kathryn Scott, Interim Chief Executive at Yorkshire Cancer Research, said: "We're proud to have funded such an important discovery in the biology of male breast cancer.

"Breast cancer is often thought of as a disease that only affects women.

"It's crucial that men are aware of the signs and symptoms of [breast cancer](#) so they are diagnosed at the earliest possible stage, but also that they are able to receive treatment that is tailored to their specific disease."

Baroness Delyth Morgan, Chief Executive at Breast Cancer Now, said: "These important findings could now enable researchers to identify whether certain male [breast cancer patients](#) might benefit from more extensive treatment.

"It's so important that we continue to investigate how male and female breast cancers differ biologically, to ensure all patients receive the most appropriate treatment and are given the best chance of survival.

"Finding out whether existing drugs could target the proteins identified in this study could open up the possibility of improving treatment for some aggressive male breast cancers."

**More information:** Matthew P. Humphries et al, A Case-Matched Gender Comparison Transcriptomic Screen Identifies eIF4E and eIF5 as Potential Prognostic Markers in Male Breast Cancer, *Clinical Cancer Research* (2016). [DOI: 10.1158/1078-0432.CCR-16-1952](https://doi.org/10.1158/1078-0432.CCR-16-1952)

Provided by University of Leeds

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