New results from researchers at Queen Mary University of London confirm the role of Human Epidermal Growth Factor Receptor (HER2) in predicting long-term outcomes for Ductal Carcinoma In Situ (DCIS), a pre-invasive stage of breast cancer.

The paper published in the journal *Clinical Cancer Research* also shows that tumours expressing HER2 derive greater benefit from adjuvant radiotherapy, and therefore that HER2 testing will help in personalised treatment selection.

This study shows that HER2 overexpression is associated with significantly increased, almost 3-fold higher risk of in situ recurrence. HER2, a protein expressed in some breast cancer cells, is routinely tested in invasive breast cancer, but its role in DCIS was previously unclear and therefore although the test is widely available in most pathology labs, HER2 is currently not routinely tested in DCIS.

Lead author Mangesh Thorat from Queen Mary University of London said: "Prior studies investigating the role of HER2 in DCIS were riddled with problems such as bias and confounding. This is the first study to use randomised trial data to overcome these limitations, and to produce robust results that we can rely on for making changes to clinical practice. These findings support the use of HER2 status to personalize treatment decisions including the use of adjuvant radiotherapy. They also make a strong case for the routine evaluation of HER2 expression in DCIS."

**More information:** Mangesh A Thorat, Pauline M Levey, J Louise Jones, Sarah E Pinder, Nigel J Bundred, Ian S Fentiman, Jack Cuzick. Prognostic and predictive value of HER2 expression in ductal carcinoma in situ: Results from the UK/ANZ DCIS randomized trial. *Clinical Cancer Research*. DOI: [10.1158/1078-0432.CCR-21-1239](https://clincancerres.aacrjournals.org/content/early/2021/08/07/1078-0432.CCR-21-1239), [clincancerres.aacrjournals.org/content/early/2021/08/07/1078-0432.CCR-21-1239](http://clincancerres.aacrjournals.org/content/early/2021/08/07/1078-0432.CCR-21-1239)