

## **Common breast cancer susceptibility loci are associated with triple-negative breast cancer.**

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### **Source**

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### **Abstract**

Triple-negative breast cancers are an aggressive subtype of breast cancer with poor survival, but there remains little known about the etiologic factors that promote its initiation and development. Commonly inherited breast cancer risk factors identified through genome-wide association studies display heterogeneity of effect among breast cancer subtypes as defined by the status of estrogen and progesterone receptors. In the Triple Negative Breast Cancer Consortium (TNBCC), 22 common breast cancer susceptibility variants were investigated in 2,980 Caucasian women with triple-negative breast cancer and 4,978 healthy controls. We identified six single-nucleotide polymorphisms, including rs2046210 (ESR1), rs12662670 (ESR1), rs3803662 (TOX3), rs999737 (RAD51L1), rs8170 (19p13.1), and rs8100241 (19p13.1), significantly associated with the risk of triple-negative breast cancer. Together, our results provide convincing evidence of genetic susceptibility for triple-negative breast cancer.