Genes linked to breast cancer in East Asian women identified

A genome-wide association study among East Asian women has allowed scientists to identify three new genetic loci (regions) linked to breast cancer susceptibility. The findings have been published in *Nature Genetics*.

Globally, breast cancer is one of the most common cancers seen in women. Many genetic variants have been identified in association with the disease; however, most of these studies have been conducted exclusively in European women. Given the differences in genetic composition between humans of various ethnicities and geographies, and the increasingly worldwide impact of breast cancer, there has been a need to expand the scope of genetic research into the disease.

In the first of three rigorous stages of analysis, the scientists used the genomes of almost 10,000 Chinese and Korean women to identify genetic variants, known as single nucleotide polymorphisms, which appeared to be most significantly associated with increased breast cancer risk. Those showing linkages to known breast cancer susceptibility genes were filtered out, and the ones making the cut — numbering almost 4,000 — were then verified against an independent set of data collected from Shanghai, China. Of the successfully genotyped regions, the top 50 were checked against approximately 14,000 cases collected from studies participating in the Asian Breast Cancer Consortium.

Read the full, original story: East Asian-specific breast cancer genes found