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Research test identifies BRCA2 gene mutations that lead to breast, ovarian cancers

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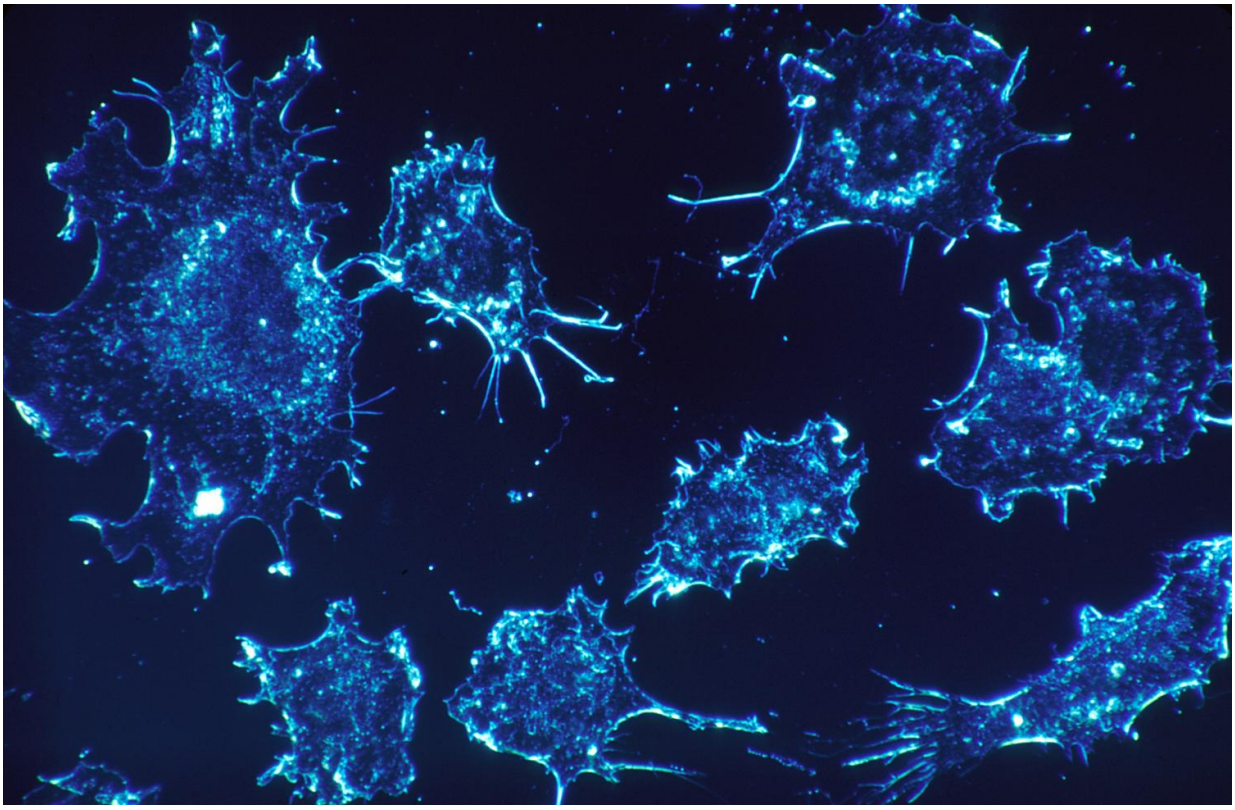

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A new test developed by researchers at Mayo Clinic shows which mutations in the BRCA2 gene make women susceptible to developing breast or ovarian cancers. The research behind the test was published today in the *American Journal of Human Genetics*.

"Certain inherited mutations in the BRCA2 gene have been linked to breast and ovarian cancer," says Fergus Couch, Ph.D., lead author of the study. "This test offers an excellent way to predict whether individual inherited mutations cause cancer."

In their study, Dr. Couch and his co-authors describe a laboratory-based test that can establish which inherited mutations called variations of uncertain significance in the BRCA2 gene are involved in cancer.

"Up until now, it has only been possible to establish that 13 inherited mutations in BRCA2 are pathogenic and known to cause cancer," says Dr. Couch. "In this study, we identified 54 that increase the risk of cancer. Similarly, 21 known neutral mutations that do not increase risk of cancer can now be expanded to 73. These findings may help patients and their health care providers make better decisions about how to deal with information obtained through genetic testing."

Going forward, Dr. Couch says this research will make it possible to evaluate the potential involvement in cancer of many more inherited mutations in the BRCA2 gene.

Provided by Mayo Clinic

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