

## Protein linked to BRCA2 gene holds potential for precise breast, ovarian cancer treatment

Researchers at Mayo Clinic have identified an enzyme called UCHL3 that regulates the BRCA2 pathway, which is important for DNA repair. Results of this research are published online in *Genes & Development*.

“DNA encodes the blueprints for our body, and DNA repair is a fundamental mechanism to prevent the accumulation of mutations in DNA and human disease,” says senior author Zhenkun Lou, Ph.D., a molecular pharmacologist at Mayo Clinic.

“The BRCA2 pathway is important for DNA repair, and mutation of the BRCA2 gene is linked to increased cancer risk, especially breast cancer and ovarian cancer.”

...Cancer cells with high UCHL3 expression are resistant to chemotherapy; whereas, cancer cells with low UCHL3 are more sensitive to chemotherapy. Therefore, the expression of UCHL3 could be a guide to develop more precise cancer therapy.

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“While more research is needed, our studies may provide a novel therapeutic venue to treat women’s cancer and thereby contribute to the health and welfare of women,” says Dr. Lou.

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Enzyme that regulates DNA repair may offer new precision treatments for breast and ovarian cancer](#)**