Medical Xpress

Common breast cancer subtype may benefit from personalized treatment approach

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The second-most common type of breast cancer is a very different disease than the most common and appears to be a good candidate for a personalized approach to treatment, according to a multidisciplinary team led by scientists at the University of Pittsburgh Cancer Institute (UPCI), a partner with UPMC CancerCenter.

Invasive lobular carcinoma, characterized by a unique growth pattern in breast tissue that fails to form a lump, has distinct genetic markers which indicate drug therapies may provide benefits beyond those typically prescribed for the more common invasive ductal carcinoma. The results recently were published in Cancer Research and will be expanded upon on Tuesday at the American Association for Cancer Research (AACR) Annual Meeting 2014.

Patients with invasive lobular carcinoma typically are treated through surgical removal of the cancer, followed by chemotherapy or hormone therapy or both, usually with the estrogen-mimicking drug tamoxifen or estrogen-lowering aromatase inhibitors, the same as patients with invasive ductal carcinoma.

"However, recent analyses suggest that a subset of patients with lobular carcinoma receive less benefit from adjuvant tamoxifen than patients with ductal carcinoma," said lead author Matthew Sikora, Ph.D., postdoctoral associate at UPCI, and recipient of this year's AACR-Susan G. Komen Scholar-in-Training Award for this research. "Our study, the largest of its kind, indicates an issue with the estrogen receptors inside

lobular carcinoma cells and points to potential targets for drug therapy in future clinical trials, which we are developing."

Early studies in developing these potential targets are the topic of Dr. Sikora's AACR presentation, with a focus on a unique signaling pathway regulated by estrogen specifically in lobular carcinoma cells.

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