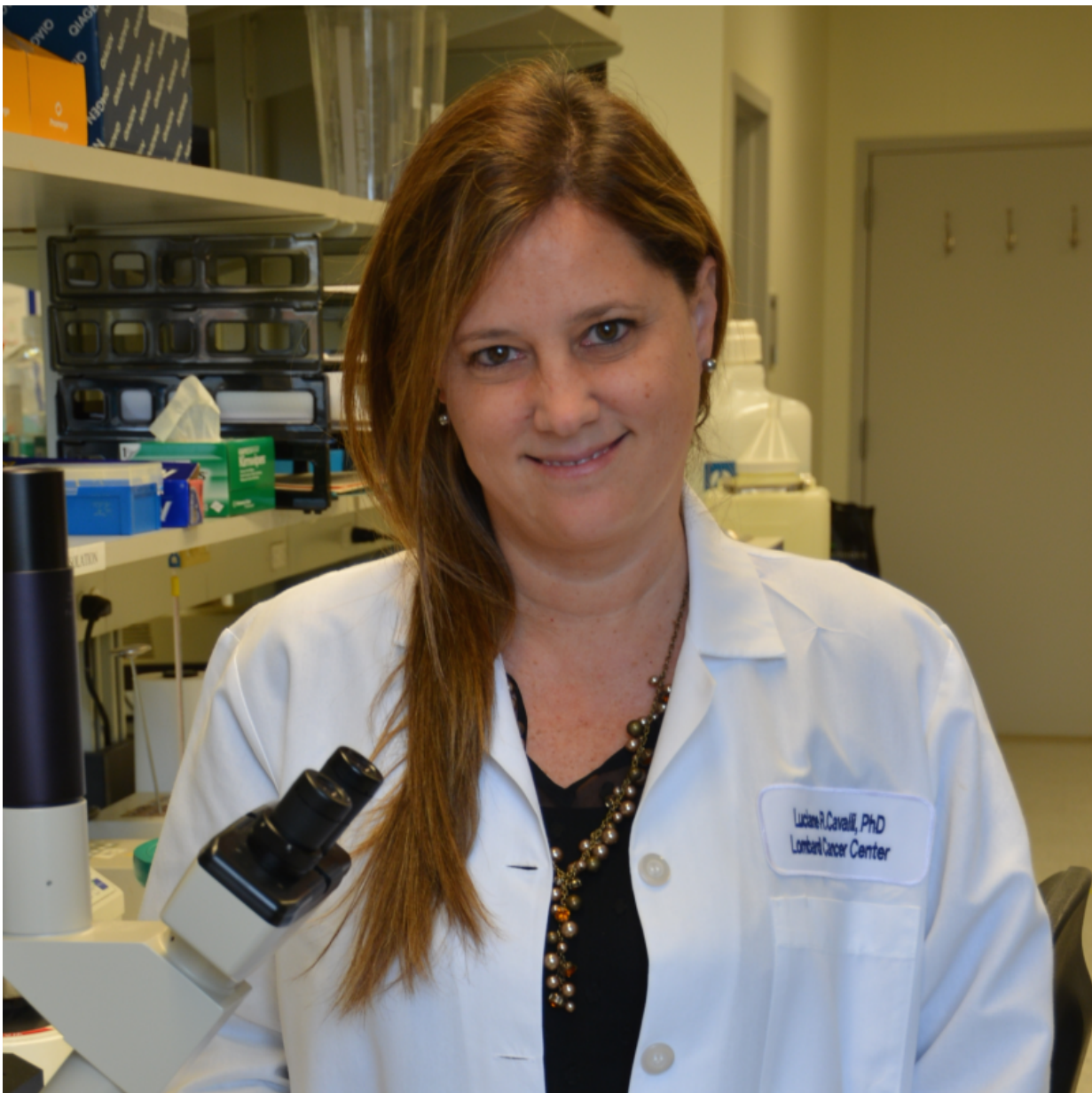


Triple negative breast cancer in African-American women has distinct difference

April 22 2015



Luciane R. Cavalli, Ph.D. Credit: Luciane R. Cavalli

What makes triple negative breast cancer more lethal in African American women than White women or women of European descent? A new study reveals specific genetic alterations that appears to impact their prognosis and ultimately survival rates. The study will be presented at the American Association for Cancer Research (AACR) Annual Meeting 2015 in Philadelphia.

Luciane R. Cavalli, PhD, assistant professor at Georgetown Lombardi Comprehensive Cancer Center explains this new work:

"Triple negative breast cancer is an aggressive subtype of breast cancer where limited treatment is available. These tumors are the leading cause of breast cancer death in African-American women, which are usually diagnosed at an earlier age and in more advanced stages of the disease, when compared with White women. The main objective of our study was to identify molecular markers in these patients that may be associated with their observed disparity in incidence and mortality rates.

"Using genome-wide screening methods, we identified a distinct pattern of DNA copy number (genome regions with gains and losses) and miRNA (small non-coding regions in the genome) expression levels associated significantly with the African American triple negative [breast cancer patients](#), when compared with White TNBC patients. This association was observed irrespectively of their clinical and pathological characteristics, including age, tumor size, stage and grade and presence of axillary lymph node metastasis.

"These initial findings indicate specific genetic alterations, involved in critical cancer related pathways and networks, in the [triple negative](#)

[breast cancer](#) of African American women that might present an impact for their prognosis and treatment, ultimately contributing to an increase in their overall survival rate."

Cavalli will discuss her poster, "Array-CGH and miRNA expression profiling of triple negative [breast cancer](#) in African-American women" on Wednesday, April 22, 2015, from 8:00 a.m. to noon; poster section 3, poster 28.

Provided by Georgetown University Medical Center

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