



CancerCare Manitoba Doctor Leads Ground-Breaking Breast Cancer Research on Gene Mutation

Findings published in Nature, World's Most Preeminent Science Journal

Winnipeg, Manitoba June 21, 2012 – A top medical oncology researcher at CancerCare Manitoba is being credited with a breakthrough in breast cancer gene mutation discovery. The findings of Dr. Shantanu Banerji and a team of researchers from the Broad Institute of Harvard and MIT and the Instituto Nacional de Medicina Genomica (Mexico), were published on June 21, 2012, in *Nature*, the world's most preeminent science Journal.

Dr. Banerji's study discovered several new mutations in breast cancer samples. One of the more significant findings is the mutation of two normal genes that first break apart then rejoin to create a breast cancer fusion gene. This gene fusion was found in Triple Negative breast cancer patients, one of the more aggressive and difficult to treat forms of breast cancer that often affects younger women.

Triple-Negative breast cancer means the cells tested negative for hormone receptors and HER2 receptors, so the tumour is unresponsive to commonly used anti-hormone or protein based cancer treatments. About 10 – 20 percent of breast cancers cases are Triple Negative.

"As a result of our findings, we now have a new target in select patients– this fusion gene," said Dr. Banerji. "With further study, specialized therapies can be developed to turn this gene off. This will eventually allow physicians to select targeted, less toxic treatments, based on a patient's genetic profile."

Dr. Banerji conducted the study at the Broad Institute in Cambridge, Massachusetts, while furthering his study in cancer genomics, the study of critical genes in cancer cells. Both he and his wife, Dr. Versha Banerji, a hematologist who trained at the Dana-Farber Cancer Institute in Boston, were sponsored by CancerCare Manitoba and the CancerCare Manitoba Foundation for the majority of their four year research fellowships at Harvard, and their return to Manitoba.

“CancerCare Manitoba is home to world class researchers such as the Banerji’s, working to find the cancer treatments of the future,” said Dr. Dhali Dhaliwal, President and CEO of CancerCare Manitoba. “Research is vital to further development of personalized medicine, so that care and treatment is based on a patient’s cancer cells and molecular makeup. Researchers like the Banerji’s bring cutting edge care from the laboratory bench to our patient’s bedside.”

Dr. Banerji will continue his work in diseases like lung cancer, breast cancer, and sarcoma at the Manitoba Institute of Cell Biology (MICB), CCMB’s joint research institute with the University of Manitoba. MICB, also funded by the CancerCare Manitoba Foundation, provides administrative support, research technology, and services, including access to the Manitoba Breast Cancer Research Centre, the largest breast cancer tumour repository in North America.

-30-

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About CancerCare Manitoba

CancerCare Manitoba is charged by an act of the Manitoba legislature with responsibility for cancer prevention, detection, care, research and education for the people of Manitoba. As a centre of choice, we are dedicated to excellence in cancer care, to enhancing quality of life for those living with cancer and blood disorders, and to improving cancer control for all Manitobans. Learn more at www.cancercare.mb.ca