



Christian Wilde's **STEM CELL** RESEARCH REPORT™

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Breast Cancer, "We Think We Got It All."

A new discovery may alter the current assessment of how one remaining cancer cell not captured through surgery can cause a later recurrence of primary breast cancer. The six words, "we think we got it all" the surgeon tells the cancer patient following surgery, unfortunately, too often proves inaccurate. The standard belief has always been that if a single cell escapes capture during the initial tumor surgery, it can later present itself metastasized in the liver, brain or other bodily organs. Today, that belief is finally being challenged. ***A new study sheds light on how recurrence of cancer in breast cancer patients actually happens.*** Standard care today in treating breast cancer is regulated to three areas of therapy. This approach in the understanding of solid tumors has fundamentally been the same for more than 3 decades:

1. Surgeons excise the cancerous tissue.
2. Radiation therapy is employed to kill the malignant cells.
3. Finally, chemotherapy stops the cells dividing. New evidence indicates this protocol may change to the benefit of women everywhere.

Breast Cancer Stem Cells Discovered In Bone Marrow, Pose Greater Risk For Breast Cancer Patients Than Previously Thought

Almost all tumor cells found in the bone marrow of early stage breast cancer patients appear to be breast cancer stem cells, suggesting the risk of disease being spread for all breast cancer patients may be greater than previously thought according to a ground-breaking study by Richard J. Cote, Professor of Pathology and Urology at the Keck School of Medicine of the University of Southern California (USC).

Much current research has focused on the theory that it is these stem cells landing in a distant site that creates metastases, and not simply single cells that

detach from the primary tumor and travel to another part of the body.

"We know that the presence of disseminated tumor cells in the bone marrow is a bad feature, as it is an indicator of future metastases, but we didn't know if these were the cells that actually cause disease progression," said Cote. "This data suggest that the vast number and majority of patients with disseminated tumor cells may have a life-time risk for relapse. We definitely need to pursue molecular studies of these putative stem cells."

In the study, Cote and colleagues looked at 50 bone marrow specimens from women whose breast cancer was caught in its earliest stages but in whom tumor cells were detected in the bone marrow. Using a very newly developed immunohistochemical protocol, Cote and colleagues found the tumor cells from all patients contained a population of now recognized putative stem cells. *Article adapted by Medical News Today from the original press release.*

New Drug Kills Cancer Cells

A combination drug, *Tykerb*, known generically as *lapatinib*, appears to be able to fight breast cancer that has spread to the brain, media recently reported. For the first time, researchers have shown that the drug can slash the number of cancer stem cells in women with breast

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