

BREAST CANCER 101

One size does not fit all

When it comes to a diagnosis of “breast cancer”, it is important to know that there are many different types of breast cancers. The behaviour and response to treatment of any given cancer is determined by several different characteristics of the cells themselves.

When such characteristics are identified, treatments can be tailored specifically to that type of cancer cell. These characteristics include “receptors” on the surface of a cell which can provide a gateway for drugs to attack the cells.

An example of this is the HER2 receptor. HER2 is a protein on the outside of some breast cancer cells. It promotes cell growth. Breast cancer cells with higher than normal levels of HER2 are called HER2-positive, those with lower levels are called HER2-negative.

Trastuzumab is a drug which directly targets the HER2 protein and has greatly improved the outcome for many women with HER2 positive breast cancer since its approval. Other receptors include estrogen and progesterone receptors. When the effects of estrogen are blocked, this avenue for cell growth is also blocked. Several other characteristics have been identified, but there are still more!

The great news here is that discovering new ways to attack cancer cells means that treatments can be tailored to each patient and give the best outcome possible for that individual.

Targeting treatments to particular cancer cell receptors also decreases the effects on other normal cells, decreasing side effects and improving patient quality of life during treatment.

Hormone Receptors and HER2 status

