



Team Progress Updates

SU2C Canada Metastatic Breast Cancer Dream Team: “Targeting mRNA Translation to Effectively Treat Metastatic Breast Cancer”

Great progress has been made in the treatment of breast cancer, and disease that remains localized to the breast can be treated successfully in most cases. However, curative treatments are not yet available for breast cancer that has metastasized, or spread, to the lungs, the bones, or other organs. Metastatic breast cancer is driven in part by out-of-control production of proteins by the cancerous cells. This happens when the basic cell machinery that translates genetic instructions into functioning protein becomes dysfunctional and aggressively produces matter that healthy cells don't need.

The Dream Team is testing a new, small-molecule inhibitor of the kinases MNK1 and MNK2, two enzymes that are key regulators of the messenger RNA (mRNA) translation process. The inhibitor works against the proteins needed for aggressive, metastatic behavior and may also help the body's immune system fight the cancer. The agent being tested, eFT508 (tomivosertib), is known to inhibit the translational process but has not yet been applied to metastatic breast cancer. This first-in-human study is administering this novel treatment to metastatic breast cancer patients for whom the standard of care has not been effective, in the hope that it will halt or slow the metastatic process.

This team started its work in Spring 2019. Progress notes will be posted after its first review.