Metastatic breast cancer (MBC) is an advanced stage (stage IV) of breast cancer where tumor cells have spread to other parts of the body, such as the bones, liver, lungs or brain. Most breast cancer deaths are a result of metastasis.

In the 1970s, only 10 percent of women survived five years after a diagnosis of MBC. Today, because of research and the discovery of new and more-effective treatments, this has increased to an average of 25 percent. While MBC is treatable, it is not currently curable.

Nearly all breast cancer deaths are due to MBC. This is, in part, because we do not know what causes cancer cells to spread.

Komen is dedicated to understanding why metastasis occurs and how to stop it, with half our active research grants addressing MBC.

In addition to funding research, Komen is a founding member of the Metastatic Breast Cancer Alliance – more than 30 organizations working to unify efforts to improve the lives and outcomes for those living with MBC.

Read how Komen-funded researcher Dr. Xiang Zhang’s personal experience with breast cancer is shaping his fight against MBC in the lab. http://sgk.mn/2wElasb

Learn more about metastatic breast cancer http://sgk.mn/lwKFOfE

What We’re Investigating

- Identifying the genes and processes that cause breast cancer cells to metastasize.
- Developing and testing new therapies to both prevent and treat metastatic breast cancer.
- Discovering new methods for predicting risk of metastasis or detecting metastasis early using blood tests or body scans.

Read more about the development of Lymphoseek in our Stories of Discovery series. http://sgk.mn/lhXCYWy

Read more about circulating tumor cells (CTCs) as a biomarker and drug target for MBC in our Science Buzz series. http://sgk.mn/leDrujd

WHAT WE’VE LEARNED from Komen-funded research

Tilmanocept (Lymphoseek), a novel FDA approved imaging method, can be used to more-effectively detect whether breast cancer has spread to the lymph nodes.

The FDA-approved Src kinase inhibitor—dasatinib—stops stem-like cancer cells that are starting to spread and may be used to prevent metastasis from occurring or treat early MBC. Read more.

The presence of certain types of circulating tumor cells may be used as a biomarker to predict who is at high risk for metastasis and may serve a drug target to prevent MBC.