RESEARCH SAVES LIVES

Biomarkers are an important part of precision medicine (also known as personalized medicine). Biomarkers are specific molecules found in the blood, other body fluids, or tissues that are a sign of a normal or abnormal process, or of a condition or disease. In the case of breast cancer, they are produced by the tumor or by the body's response to the tumor. Tests that screen for biomarkers, such as blood or urine tests, are becoming increasingly used by doctors to help diagnose and understand each person's individual risk of disease.

Learn more about precision medicine
http://sgk.mn/1odO1J8

For example, biomarker tests can be used along with mammography to detect cancer early (early detection) when chances of survival are highest, or to more accurately diagnose what type of cancer is present (diagnostic).

Biomarker tests are not just for people with cancer. They can also be used to determine which women are at higher risk of developing breast cancer, helping doctors and patients make informed decisions about risk-reduction options.
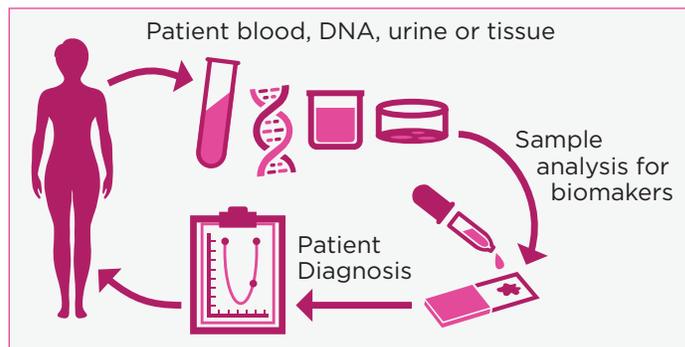
Finding better ways to detect or diagnose breast cancer earlier, or identify people at high risk for developing breast cancer, could greatly improve the chances of survival for many people.

OUR RESEARCH INVESTMENT:
(1982-2019)

More than **$54 million** in over **110 research grants** and more than **20 clinical trials** focused on early detection, diagnostic and risk biomarkers

What We're Investigating

- Developing biomarkers that can detect all subtypes of breast cancer, particularly in women where mammography is less effective, such as those with dense breasts.

- Identifying diagnostic biomarkers that can help discriminate among different types of triple negative breast cancer.

- Developing biomarkers that can predict which women are at increased risk of breast cancer, such as women with BRCA gene mutations, dense breasts or of African descent.

Want to read more about our research on other types of biomarkers and precision medicine? **Download** the other Fast Facts in this series. http://sgk.mn/1xi7r82

Read more about Komen-funded research on early detection biomarkers by researcher and survivor Dr. Kristi Egland, in our Behind the Science series. http://sgk.mn/2xrbSB2

Patient blood, DNA, urine or tissue — Sample analysis for biomakers — Patient Diagnosis

WHAT WE'VE LEARNED
from Komen-funded research

- A biomarker blood test that measures antibodies—molecules produced by the body's immune system—may be used to detect breast cancer at its earliest stages.

- A biomarker saliva test may be used for the early detection and diagnosis of breast cancer by uniquely differentiating among women who are healthy, have benign breast tumors, or have invasive breast cancer.

- A unique signature of different biomarkers based on race, tumor type and lifestyle factors such as obesity may be used to improve diagnosis of breast cancer and identify those at high risk.

Learn more about breast cancer / More Komen-funded Research Stories / Get Involved & Support Komen Research