2023 RESEARCH FAST FACTS

# Vaccines & Immunotherapy

**RESEARCH INVESTMENT AT A GLANCE:**
(1982-2023)

More than **$60 million** in over **150** research grants and nearly **20** clinical trials focused on vaccines & immunotherapy

**90%** focus on treatment

## ABOUT VACCINES & IMMUNOTHERAPY

Immunotherapy is a relatively new and promising area of breast cancer treatment that boosts the body's own immune system to recognize and fight cancer cells. It can be used alone for breast cancer treatment, or given along with other treatments like chemotherapy, radiation, or surgery. Many types of immunotherapy drugs are used to treat breast cancer, including monoclonal antibodies and vaccines.

Learn more about emerging areas in breast cancer therapy here. Learn more about participating in a breast cancer immunotherapy trial here.

## WHAT WE'RE INVESTIGATING

Determining if combining the targeted therapy drug sacituzumab govitecan (Trodelvy) with the immunotherapy drug pembrolizumab (Keytruda) improves responses in certain types of metastatic breast cancer.

Developing a new immunotherapy nanomedicine drug to boost the body's immune response against cancer cells and combining it with chemotherapy to eliminate breast cancer metastases.

> *"The reason immunotherapy may actually help us to achieve a cure is because immunotherapy is a treatment that teaches your immune system to recognize a tumor as something that's foreign and needs to be eliminated. This is called an adaptive immune response and it can be lifelong."*
>
> **- Komen Scholar, Dr. Elizabeth Mittendorf, speaking on harnessing the immune system to kill breast cancer forever. Read more in the blog post here.**

## SPOTLIGHT

Learn about Career Catalyst Research Grantee Dr. Jennifer Guerriero's Komen-funded research on how targeting specialized immune cells called macrophages may help the body's own immune system fight breast cancer and improve responses to other therapies here.

## WHAT WE'VE LEARNED FROM KOMEN-FUNDED RESEARCH

- Nanotechnology can be used to improve the immune system's response to solid tumors, making breast cancers more sensitive to immunotherapy.
- Implantable microdevices can deliver new combinations of immunotherapies and other drugs to test those combinations that show clinical promise for breast cancer treatment.
- Targeting the sugar molecules attached to the body's own immune cells may increase their ability to attack triple negative breast cancer (TNBC) cells and make them more sensitive to current immunotherapies.

**Learn More About Breast Cancer** | **More Komen-Funded Research Stories** | **Get Involved & Support Research**