



Using antibody-drug conjugates to act as ‘smart bombs’ against cancer

Chemotherapy kills cells that rapidly divide, like cancer cells, but cancer cells are not the only rapidly dividing cells in the body. As a result, patients can experience harsh side effects from chemotherapy. But what if chemotherapy could be delivered directly to cancer cells, sparing healthy cells from dying?

Researchers have found a way to launch a targeted attack on tumor cells – a class of drugs called antibody-drug conjugates (ADCs). These “smart bomb” drugs link chemotherapy drugs with an antibody that directly targets a tumor, sparing other parts of the body. Antibody drug conjugates are already revolutionizing treatment options for all types of breast cancer. Researchers are already working on the next generation of ADCs and determining which patients will benefit most from this groundbreaking technology. Researchers have only begun to unlock the potential of these innovative drugs.

Susan G. Komen is committed to advancing cutting edge research, like our research portfolio focused on optimizing ADCs to improve patient outcomes and save lives. With your support, we can continue to invest in research leaders that are bringing innovative solutions that will personalize approaches to patient care, driving better outcomes for the breast cancer community.



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Synergizing treatments for patients with few options

A leader in our ADC research portfolio is Komen Scholar Sara Tolaney, M.D., M.P.H., who is working to synergize ADCs with other cutting-edge treatments.

Immunotherapy triggers the immune system to help it fight tumors, and previous research has shown it can lead to long-lasting responses for some people with triple-negative breast cancer. But this benefit has not yet been demonstrated in many cancer types.

Dr. Tolaney helped lead the Phase 3 clinical trials that resulted in the FDA-approval of the ADC sacituzumab govitecan for patients with metastatic ER-positive and triple negative breast cancer, resulting in a new treatment option for roughly 80% of the 168,000 women living with metastatic breast cancer in the U.S. Through her Komen-funded studies, Dr. Tolaney is conducting a Phase 2 clinical trial that will test if Sacituzumab govitecan plus immunotherapy improves outcomes compared to Sacituzumab alone. These findings may pave the way for new treatment options to build on the momentum of ADC drugs in improving outcomes for patients.