

Translating Research into Action for Aggressive Breast Cancers

*Not all breast cancers start with a lump: **inflammatory breast cancer** disguises as a skin rash.*

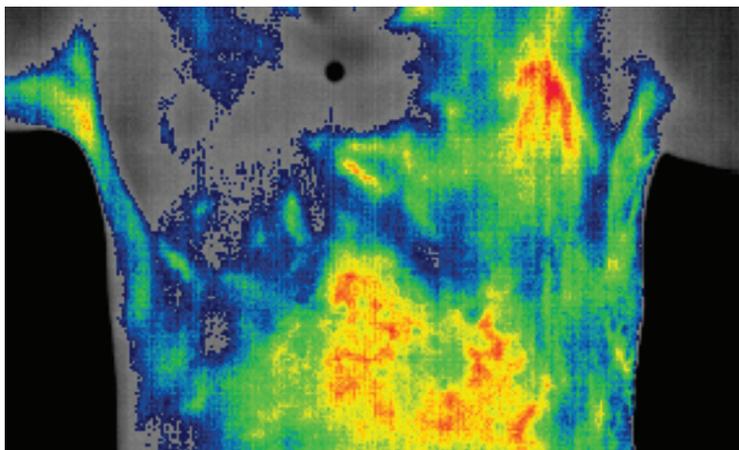
Inflammatory breast cancer (IBC) is a rare but very aggressive form of the disease. Because IBC resists treatment and easily spreads, understanding it can provide clues to understanding other metastatic cancers.

Metastasis—when cancer spreads from its original site to other parts of the body—is what causes most cancer deaths, including deaths from breast cancer. Scientists and physicians from Duke as well as around North Carolina and the world are partnering to help better understand and treat metastatic breast cancer.

The cornerstone of these efforts is **the Duke Consortium for Inflammatory Breast Cancer**, led by Gayathri Devi, PhD, an associate professor of surgery and pathology and a member of Duke Cancer Institute (DCI) and Kelly Marcom, MD, Director of the Breast Program at DCI.

The **Duke Consortium for Inflammatory Breast Cancer** brings together:

- Duke basic, translational, and clinical scientists; physicians, and health care providers from Duke and the community
- Patient advocates
- Investigators from other Research Triangle area universities and industry
- The IBC International Consortium



A thermographic image of inflammatory breast cancer, showing the heat from elevated blood flow spread throughout the chest.



Gayathri Devi, PhD, Program Director, Duke Consortium for IBC



Kelly Marcom, MD, Clinical Director, Duke Consortium for IBC; Director, Breast Program, DCI

The consortium focuses on:

- **Education and Awareness.** Because IBC symptoms are not typical of most breast cancers, it is often misdiagnosed, which can delay lifesaving treatment. The consortium is working to develop a strategic plan framework for creating patient and clinician/practitioner education and dissemination tools to increase IBC awareness in North Carolina, which we have termed “Connect NC for IBC.”
- **Biobanking.** Because patients often undergo extensive chemotherapy or radiation before surgery, there is a lack of patient tumor samples for study. The consortium is developing ways to create a robust biobank of patient tumor samples.
- **Understanding the unique ways that IBC spreads.** IBC cells find a way to evade the body’s programmed cell death mechanisms that normally get rid of damaged or abnormal cells. Consortium researchers have developed ways to study IBC in animal models and in cell culture that mimic the conditions that IBC cells face inside the body, to learn how these cells survive. Using patient-derived cells in these models, the team hopes to identify markers that can be verified in patients. “We aim to study the disease from bedside to bench, and back,” Devi says.
- **Determinants of population health and disparities in clinical outcomes.** The team works with the community to track IBC cases and look for patterns in who gets the disease and which patients do better or worse.

About Inflammatory Breast Cancer

- Inflammatory breast cancer (IBC) is a distinct and highly aggressive form of breast cancer with a poor prognosis (5-year survival rate of only 35–40 percent).
- Although categorized as a rare disease, IBC disproportionately accounts for 10 percent of all breast cancer deaths.
- Rather than presenting as a suspicious lump, IBC is composed of clusters of cancer cells that block the lymph vessels in the skin of the breast. Typical symptoms include rapid breast swelling, itching, and the appearing of a rash. It is often misdiagnosed as an infection or mastitis.
- Compared with other types of breast cancer, IBC tends to be diagnosed at younger ages.
- In the United States, African Americans appear to have higher risk of developing inflammatory breast cancer, and the disease is particularly aggressive in African American patients, irrespective of hormonal status or molecular subtype.
- Reports in the last two decades have also shown a high incidence of IBC in the Mediterranean area in North Africa.
- No risk factors have currently been defined, but epidemiological studies reveal an increase in global incidence of IBC.
- Duke efforts to understand this highly aggressive and metastatic breast cancer will reveal knowledge that can be applied to improve diagnosis and treatment of all types of metastatic breast cancer.

Partner with Us

Duke is proud to be a leader in efforts to understand and treat IBC and other metastatic breast cancers. We invite you to partner with us.

Please contact us today to learn about an opportunity that will be most meaningful to you.

Make a Gift

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Collaborate with Us

To learn more about our efforts or to get involved, please email 4ibc@duke.edu.



Duke Cancer Institute

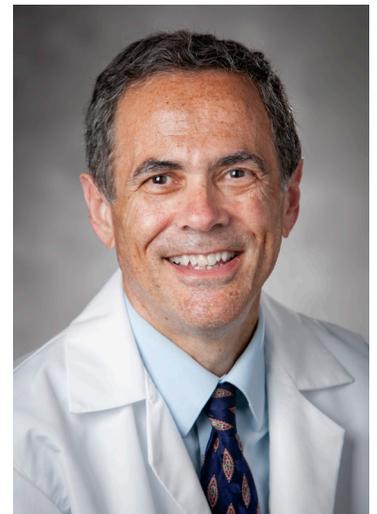
Other collaborators in the Duke Consortium for IBC



Nadine Barrett, PhD, Director, Office of Health Equity and Disparities



Shelley Hwang, MD, MPH, Chief of Breast Surgery



Neil Spector, MD, Associate Director, Clinical Research, Breast Program, DCI