This October during Breast Cancer Awareness month, our thoughts turn to the 3.5 million breast cancer survivors among us in the U.S., our mothers and daughters, loved ones and friends. We think of the hundreds of thousands of women who will receive a breast cancer diagnosis this year alone.

Together, they motivate us to pursue our mission relentlessly, to fund research that helps breast cancer survivors thrive and brings us closer to a future where that diagnosis is no longer feared.

At Gateway, patients are at the center of all we do. They have a voice. By sharing their personal stories, they inspire donors to give and researchers to push harder in the search for cures. They bring hope to other cancer survivors who share their journey.

In this edition of CuresTODAY, you will hear their voices, and learn more about the life-saving breast cancer research that gives them – and all of us – hope for a healthy future.

This fall is a season of “Hope for Her” at Gateway. That is the name of an innovative new fundraising partnership with the University of Phoenix to support breast cancer research. I am personally inspired by the University’s commitment to rally others to the breast cancer cause by doubling the impact of gifts made during Breast Cancer Awareness month.

As always, thank you for joining us in our commitment to the patients we serve and the survivors we celebrate. Let’s continue to tell their story together.
An Individualized Approach to Breast Cancer Radiotherapy

We know that there are several different types of breast cancer, but the initial treatment approach is more or less the same for the vast majority of women – surgery to remove the tumor followed by radiation to destroy any cancer cells that may have been left behind. In a new Gateway-funded study, researchers at Duke University are moving away from this “one-size-fits-all” radiation therapy toward a more targeted approach based on the genetic characteristics of an individual woman’s tumor.

Rachel Blitzblau, MD, PhD, of Duke University School of Medicine recently completed a Phase I trial that successfully treated women with radiation before surgery. The main benefit of the pre-surgical approach, she found, is that an intact breast is a more reliable target for radiation therapy, meaning less of the surrounding normal tissue is exposed to high dose radiation.

The pre-operative approach also provided a new opportunity to study breast cancer radiation response. In the Phase I study, the team collected pre- and post-radiation MRI images and tumor tissue samples for further study to gain a better understanding of how distinct breast cancer tumor types respond to radiation. With this information, doctors can tailor the dosage so women with more sensitive tumors can receive less toxic treatment and those with more aggressive cancer can receive more effective radiation.

The next step for Dr. Blitzblau and her colleagues is to further explore these findings in a two-part study. First, they will fully evaluate the complete response of breast cancers to pre-surgical radiation. To learn more about how individual subtypes of cancer respond to radiation, the second trial will examine levels of circulating DNA in the blood, pre- and post-radiation, for expression of the FAS gene, which is an established prognostic marker for breast cancer. The ultimate goal of the two trials is to improve upon current radiation methods that treat all breast cancers alike with an individualized approach based on tumor characteristics. That could be an initial treatment game-changer for millions of women diagnosed with breast cancer.

A Few Things You Should Know About Breast Cancer

Thanks to advances in cancer research, treatment and prevention, the combined 5-year survival rate for breast cancer at all stages is 90 percent, according to the National Cancer Institute’s SEER database. That rate soars to 99 percent if the cancer is caught early before it has had a chance to grow and spread. There are simple steps women can take to protect themselves.

Understand Your Risk. There are several risk factors for developing breast cancer, some of which can, and some of which cannot, be controlled.

• Getting older. The risk for breast cancer increases with age; most breast cancers are diagnosed after age 50.

• Reproductive history. Starting menstrual periods before the age of 12 and reaching menopause after 55 can increase breast cancer risk.

• Genetic mutations. Women who have inherited changes to certain genes, such as BRCA1 and BRCA2 are at higher risk of breast and ovarian cancer.

Be Proactive About Your Health. By making some healthy lifestyle choices, many women can reduce their risk for developing breast cancer.

• Early detection is key. Regular screenings can help identify breast cancer in its earliest, most treatable stages.

• Maintain a healthy weight and exercise regularly.

• Limit alcohol consumption. Studies show that alcohol over-consumption increases a woman’s risk for breast cancer.

• Women with a family history of breast cancer should discuss with their doctor ways to lower risk.

For more information about breast cancer risk and prevention, visit www.cdc.gov/cancer/breast/basic_info.
**Definition:** A type of breast cancer in which the tumor cells do not have estrogen receptors, progesterone receptors, or large amounts of HER2 (human epidermal growth factor receptor 2) protein on their surface. Also called TNBC, it accounts for approximately 15 percent of breast cancer diagnoses.

**Application:** Knowing whether breast cancer is triple-negative is important in planning treatment. Of the main breast cancer subtypes, triple-negative is the hardest to treat because tumors lack hormone receptors and do not overexpress HER2, so they do not respond to therapies directed at these targets. Chemotherapy is the standard treatment for TNBC.
In Patients’ Own Words

Since its founding in 1991, Gateway has funded more than two dozen early stage breast cancer clinical trials of innovative new treatment approaches that have improved outcomes for patients, helping thousands of women and men survive and thrive beyond a cancer diagnosis. Here is what a few of them had to say...

“I was diagnosed with HER-2 cancer in my left breast in January 2019.

After my lumpectomy, I was presented the opportunity to participate with the TDM-1 clinical study. Since then, I have been able to function normally, I can work and live my life with minimal effects.

I consider myself very fortunate to receive this treatment and to-date very pleased with the progress that I am making.

My sincere hope is that it’s a major breakthrough in cancer treatment and others can benefit from it.”

- Patient wishes to remain anonymous

“I applied for the clinical trial. I didn’t know if it would benefit me, or if it would benefit someone else. But I felt like it was really my role to give back.

There is a cure out there. It’s just a matter of time and people committing effort in finding it. I ask you to support cancer research so patients like me cannot just see kindergarten graduation, but also see college graduation too.”

- Michelle Ashby, a young mother, diagnosed in 2009 with aggressive inflammatory stage 4 breast cancer.


In December 2018, I came to Dana-Farber for a second opinion. When I heard about the TDM1 study, I experienced the first moment of grace after several weeks of high anxiety. It seemed that the study was designed exactly for someone like me: for my age, for my type of cancer, etc.

As a nurse it appealed to me to be part of cancer research. Most importantly, the thought that other older women would possibly one day benefit from my experience, gave me relief from my own sense of misery. Things became better once I was enrolled and began infusions with TDM1! I have now completed my TDM1 treatments. I feel relieved, exhausted, and grateful for having had the opportunity to participate in the study and for having received great care at Dana-Farber.

It is much too early to tell if the treatment will ultimately be successful in keeping me free of cancer but today, I feel hopeful that it may.”

- Patient wishes to remain anonymous

Do you have a personal experience you’d like to share with others through CuresTODAY? We would love to hear from you! Please send an email to Contact@GatewayCR.org.

Your Chance to be Extraordinary

COVID-19 significantly disrupted patient access to clinical trials – research that can make a world of difference for those facing cancer. In response to this durable trend, Gateway launched an innovative new funding program to support “decentralized” clinical studies that bring clinical trials to the doorsteps of cancer patients by leveraging technology and at-home care.

Extraordinary Measures, an urgent new fundraising campaign unlike any we have ever conducted in our nearly 30-year history, will advance this new grant program, helping to ensure all those facing cancer continue to receive potentially lifesaving therapies.

With Extraordinary Measures, you can help bring trials home today. Find out more at GatewayCR.org/EM. Thank you.