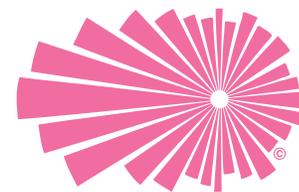


Supporting HOPE



Rays of Hope

Walk & Run Toward the Cure of Breast Cancer

A Newsletter of Baystate Health Foundation

NUMBER 45 • SPRING 2021

Hope Carries Us into 2021

While the pandemic continues to dramatically affect our lives, we look at 2021 to be a year of healing and, most importantly, of HOPE. A hope that we continue to support those touched by breast cancer in western Massachusetts, and that we can once again be together to literally wrap you in the pink hug that is Rays of Hope. As we chanted in 2020, we reiterate once again in 2021 – that until there is a cure for breast cancer, HOPE will never be canceled.

HOPE wasn't canceled last year when we held our first hybrid Rays of Hope Challenge. We encouraged participants to get involved in any way they chose – to walk, run, bike, do yoga, skateboard, and more – to help support Rays of Hope. And to do it any place, any time and any day they chose. We had teams getting together wearing masks and socially distancing while walking, individuals hiking mountains, riding bike paths and walking through their neighborhoods.

We also held our in-person Parade of Hope on Sunday, October 25, in Holyoke, Massachusetts, a much different location than our normal site in Springfield. But, we still had many of the iconic elements of Rays of Hope, including the huge pink arch sponsored by Golden Years Homecare that more than 250 cars drove under welcoming participants to the Parade of Hope. All the cars were decorated with pink balloons, garland, streamers, sparkles or signage declaring their excitement and reasons for participating – celebrating survivorship and each other.

The cars drove a route through the parking lot decorated with beautiful balloon sculptures, sponsored by Acme Metals & Recycling, Inc. while listening to a special Rays of Hope radio station playing music as well as messages of encouragement and thanks. Volunteers handed out refreshments at a “water stop” sponsored by Greater Springfield Credit Union and Team DAWN as participants drove up to the T-shirt tent while watching messages of hope and thanks on the Radiology & Imaging, Inc. sponsored jumbotron.

Survivors were able to drive up to the Pink Hope Lounge, decorated by McClelland's Florist, and receive their 2020 medal, t-shirt and Pete's Sweets cupcake. They were encouraged to send in their photos prior to the event and a tapestry of images was created in place of the annual Survivors' Photo, which was shown on the jumbotron and on social media (also, see page 14.) And BIG WIGS were honored for their outstanding fundraising achievements, sponsored by



Rays of Hope supporters came out in full force. Photo courtesy of Frederick J. Gore with *The Republican*.

USA Waste & Recycling. All this was followed by a moving virtual celebration viewed by thousands online.

We are hopeful that on October 24, 2021, we will be able to gather together again for the Rays of Hope Walk & Run Toward the Cure of Breast Cancer. Whether our 28th annual event takes place traditionally or in some hybrid fashion like last year, we look forward to remembering those lost, celebrating survivors and you, our Rays of Hope family.

Register to participate for the 2021 Rays of Hope Walk & Run Toward the Cure of Breast Cancer at BaystateHealth.org/RaysOfHope and start planning how and when you'll get involved. As soon as you register, create your fundraising page by telling the story of why you want to help Rays of Hope and include photos of yourself and/or your team. Then start fundraising by sending out emails, making phone calls or posting on your social media to let your friends and family know you need their help in supporting Rays of Hope.

In our tradition of HOPE, the vaccine is here, and we can see the dawn of better days on the horizon. Throughout this public health crisis, Rays of Hope has continued to provide meaningful support to individuals along their journey with breast cancer. It is a great source of pride that we can still say the Rays of Hope family means no one faces breast cancer alone.

For more information visit BaystateHealth.org/RaysOfHope

Chair's Message

A new year marks a new life! At times, what's coming can be better than what's gone!

Al and I started the new year with loads of positivity and motivation in continuing to find creative ways to raise funds during these challenging times. Due to the new norms, we are thinking of virtual opportunities/events to have fundraisers and continue our commitment to raising funds for Rays of Hope.

We'd like to take this opportunity to thank everyone involved, including the families, friends, co-workers, walkers, runners, teams, donors, and Lucy Guiggio-Carvalho, founder of the Rays of Hope organization/family, for keeping the hope alive. It was almost 28 years ago that Lucy found a way to raise breast cancer awareness by organizing her very first walk and run. All the money raised continues to stay in western Massachusetts and goes toward new equipment and research in getting one step closer to a cure!

As the 28th anniversary of the walk and run approaches, we can't begin to tell you how excited we are in working with Lucy and her dream team.



Jacqueline and Alberto Rodriguez

Al and I continue to be strongly committed to the cause since first being diagnosed back in 2010. We ask that you join us in celebrating the fight toward the cure of breast cancer at Rays of Hope on October 24.

We are all family. And, remember, family means no one will face breast cancer alone.

Keep the faith, stay safe and never lose hope.

Jacqueline and Alberto Rodriguez
2020/2021 Rays of Hope Co-chairs

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See more wonderful sponsors on page 13

A Fence Full of Hope

Thank you to our friends at J. Polep Distribution for the outstanding job they did with their 'Fill the Fence' fundraiser, through which they raised \$2,500 worth of HOPE!

Every Thursday during the month of October, J. Polep staff members set up a table in their break room where they sold pins, pens, lip balm and face masks to employees to raise funds toward the cure of breast cancer. In addition to merchandise sales, they sold pink ribbon cutouts on which employees wrote their names and the names of breast cancer survivors they wanted to support. The pink ribbons were then hung on a chain link fence that separates the offices from the warehouse.

"It was amazing to see how many employees wanted to put names on the fence," shared Operations Administrative Assistant Laura Gagnon, who served as one of the fundraising coordinators. "Some employees shared how they had family members pass from breast cancer and others told me how they had relatives that were currently fighting the disease."

"Holding the fundraiser each week was a great way of getting everyone involved in helping with the cause," said Shelley Carner, Director of Customer Service, who worked as co-coordinator on the fundraiser with Gagnon. Shelley, a two-year breast cancer survivor who celebrated her second cancer-free anniversary on January 15, was especially passionate about participating in a successful fundraiser.

"Fill the fence took on a life of its own. Instead of virtually walking, Laura and I decided we wanted to do something different to raise funds," said Shelley. "I bought the pink ribbon cutouts for people who didn't want to purchase the merchandise, but still wanted to make a donation. Once a donation was made, we had people write their names on the pink ribbon. When we decided then to hang them on the fence, we took one look at each other and simultaneously said 'We are going to fill this fence with pink ribbons!' and that is exactly what we did!"



J. Polep Distribution Team

"We had such great energy from everyone in the warehouse," Laura said. "They were so proud to be wearing pink! I took pictures throughout the month and put them up on the monitor in the break room. This really helped build the excitement and got everyone involved. We purchased balloons from Party City each week and on the final week they generously donated a dozen latex balloons to help us round out our fundraising event. We are proud to have raised over \$2,500 in 2020 and are looking forward to raising even more this year!"

Thanks to Laura, Shelly and the entire crew at J. Polep for their united efforts in fundraising in such an inspiring and unique way!

If you are interested in joining in the fight against breast cancer and want to learn more about hosting a third party event, visit BaystateHealth.org/My-Fundraiser or email us at RaysOfHope@BaystateHealth.org.

Raise \$1,000 - \$2,999 ONLINE:

- **BIG WIG** hat
- **2021 collectors pin**
- **Swag bag** full of goodies
- **Recognition** in the spring edition of the Supporting Hope newsletter
- **Shout out** on our social media platforms
- **Bragging rights** to call yourself a Rays of Hope BIG WIG



Raise \$3,000 or more ONLINE:

- **ALL THE GOODIES ON THE LEFT AS WELL AS... much more!**
- **Yankee Candle Gift Basket**

Big Wig status is reserved for fundraisers who collect \$1,000 or more online.

COVID VACCINE Q&A

with Dr. Grace Makari-Judson

How do you feel about the speed at which the COVID-19 vaccine was developed?

We need to be grateful for landmark research on other viruses, such as HIV, and for the development of vaccines for SARS CoV-1 and MERS, which provided the backbone for the successful and accelerated development of the SARS CoV-2, COVID-19 vaccine. The vaccine is built on the foundation of knowledge and understanding of other RNA viruses.

Should breast cancer patients get the COVID-19 vaccine?

Yes. Breast cancer patients should get the vaccine.

We give vaccines regularly to our cancer patients. We make a distinction between different types of vaccines. Live (attenuated or weakened) vaccines such as MMR- measles/mumps/rubella are to be avoided. Vaccines which are killed and inactivated, such as the flu shot, are safe. Vaccines against subunits or parts of virus or bacteria, such as pneumococcus are also safe. We generally immunize all our new patients for the flu and often pneumococcus, at the time they start treatment.

The Pfizer and Moderna COVID-19 vaccines are subunit vaccines, made from the RNA of the virus. The J&J vaccine is made from the DNA and inserted into a harmless virus vector. Both vaccines instruct our cells to make a protein that jump starts the immune system to defend against the virus.

What about immunocompromised patients?

Immunocompromised breast cancer patients would include those who are actively receiving chemotherapy or immunotherapy for treatment. It would not include breast cancer patients who have completed active treatment and are on hormone therapy.

At this time, based on current Centers for Disease Control (CDC) guidelines, there is no reason for patients who are receiving chemotherapy and immunotherapy to avoid vaccination. Individuals can discuss with their treating physician any concerns.

Who should not receive the vaccine?

The CDC recommends that anyone with a severe allergy to mRNA vaccine components not receive the vaccine. If you have had severe allergy to other vaccines, to polysorbate, or to polyethylene glycol check with your doctor. Patients with other allergies, such as to food or medications, should not worry.



What about lymphedema risk?

There is a small risk (8-15%) of swelling at the site of the vaccine injection or under the arm, which generally resolves over a few days. Cellulitis, which is a skin infection developing at the site requiring antibiotics, is rare. We routinely give other intramuscular injections, such as the flu shot, without concern about lymphedema.

The arm opposite the side of surgery is the preferable site but concern about lymphedema should not keep an individual from receiving the vaccine.

What about mammography and timing of the vaccine?

Women may be unaware of lymph node swelling that occurs after the vaccine. Although this is harmless, it may show up on a mammogram, cause confusion about possible breast cancer and lead to additional testing. To minimize this risk, at Baystate, we recommend delaying your screening mammogram 4-6 weeks after your second vaccine dose. Of course, if a woman has a lump or other breast symptom, they should not delay any evaluation. Don't miss an opportunity to be vaccinated but don't skip your screening mammogram either. (For more information on mammography, see Dr Hadro's article on page 10.)

What's the bottom line?

The risk of dying from COVID-19 is now higher than the risk of death from cancer.

The more people that get the vaccine, the closer our community will get to "herd immunity" and ultimately the way out of this pandemic.



Seen at the Parade of Hope 2020!
Photos courtesy of Fredrick J. Gore of The Republican

Easthampton Fire Heroes of Hope

For the last several years, the Easthampton Fire Department (EFD) has sold T-shirts to raise both awareness and funds for Rays of Hope and the mission toward the cure of breast cancer. Last year, they shattered all of their previous goals by raising an outstanding \$6,179.43!

“The men and women of the local 1876 Easthampton Fire Department wore their pink shirts to stand in solidarity with the fight to find a cure for breast cancer,” shared EFD representative Tyler Struthers. “We love doing this fundraiser every year. We are lucky to have great businesses in the area, like Big E’s supermarket, who continue to support our efforts. This horrible disease has affected many of us in the department in a variety of ways, so we are proud to do our part in raising awareness and funds. We hope our contribution will help support both local families and research to help find a cure.”

Thank you to our friends at the Easthampton Fire Department for their continued support! You are our heroes.



Pictured, from left, Captain Sean O’Leary and Firefighter & Paramedics Jay Dunham & Bob Dragon

Marty’s Mission



Pictured, from left: Jennifer Mango, Marty Degan and Sherri Langevin

Martin ‘Marty’ Degen, executive director and COO of Baystate Home Health & Hospice (BHHH), has always been passionate about supporting the mission of finding a cure for breast cancer. On September 18, 2020, he ran, walked and biked for eight consecutive hours in honor of Rays of Hope and all those who have been affected by breast cancer. Marty’s trek raised an amazing \$2,845 toward breast cancer research and the support of local breast cancer survivors. In addition to inspiring hope in others, his outstanding fundraising efforts earned him the title of Rays of Hope BIG WIG!

“I was able to keep it going for eight hours and five minutes and 38 miles. With all the COVID-19 distractions, I wanted to make sure that other important initiatives, like Rays of Hope,

didn’t get lost or forgotten,” shared Marty. “With the traditional Rays of Hope event going virtual this year, I thought it would be fun to do something a little different. It also forced me to exercise and train in preparation! In addition, I have two very close colleagues that I wanted to recognize and honor with this fundraising mission.”

Marty’s passion for Rays of Hope also tied in with his work and team at BHHH, who support Rays of Hope each year.

“I wanted to dedicate the whole day to Baystate Home Health and Hospice as it is a privilege and honor to be the leader of this agency. I am truly blessed to be working with so many outstanding individuals,” said Marty.

Thank you Marty for all your amazing fundraising and for inspiring hope!



ROH Funds: Raised LOCAL – Stay LOCAL!

Medical Update

Grace Makari-Judson, MD
Medical Oncologist, Baystate Health
Chair, Baystate Health Breast Network

Dawn Brooks, MD
Medical Oncologist, Baystate Health

Updates from the San Antonio Breast Cancer Symposium

Drs. Grace Makari-Judson and Dawn Brooks, breast cancer specialists at the D'Amour Center for Cancer Care at Baystate Health, attended the San Antonio Breast Cancer Symposium held virtually, December 8-11, 2020. Here are a few highlights.

For Newly Diagnosed Patients

Both agreed the talk presenting the RxPONDER trial results was one of the most important of the conference, with the results immediately guiding their clinical practice.

“The results of RxPONDER will allow us to safely omit chemotherapy from curative treatment of a significant group of early breast cancer patients,” noted Dr. Brooks.

“Specifically those with hormone receptor positive HER2 negative cancer that has spread to the lymph nodes.”

The RxPONDER trial studied whether the Oncotype Dx test could be used to determine which patients with hormone receptor positive HER2 negative breast cancer and lymph node involvement did not need chemotherapy. The Oncotype Dx recurrence score measures the expression of several important cancer genes within a patient's tumor to determine how likely it is to come back after treatment and whether chemotherapy will reduce that risk.

Oncotype Dx has been used for many years to determine which hormone receptor positive HER2 negative breast cancer patients without lymph node involvement should get chemotherapy. RxPONDER studied patients with lymph node involvement to see if some of those patients could safely skip chemotherapy.

A total of 5,000 patients with hormone receptor positive HER2 negative breast cancer with one to three involved lymph nodes and an Oncotype Dx recurrence score less than 26 were randomly assigned to either receive or omit chemotherapy in the study. All patients then went on to treatment with five years of hormone treatment.

The trial found that within postmenopausal women, a similar percentage, just over 8%, had a recurrence of their cancer after five years, whether or not they received chemotherapy. In other words, they had no benefit from getting chemotherapy.

By contrast, premenopausal women appeared to benefit from chemotherapy. After five years, only 6% of premenopausal women who received chemotherapy had



Grace Makari-Judson, MD



Dawn Brooks, MD

a recurrence of breast cancer, compared with 11% of women who did not. Although it may be safe for some of these women to skip chemotherapy, it's currently not clear how to identify those patients. Patients will need to have a detailed conversation with their medical oncologist about this important decision.

RxPONDER represents a significant advance in the curative treatment for a very common subset of breast cancer patients, postmenopausal women with hormone receptor positive HER2 negative lymph node positive breast cancer.

“The majority of these women will be able to safely skip chemotherapy, based on the Oncotype Dx result,” commented Dr. Brooks. “It's news our patients are incredibly relieved and happy to receive.”

For Patients with Advanced Disease

For patients with metastatic triple negative breast cancer, there were updates on two FDA approved immunotherapies —atezolizumab and pembrolizumab—and an update from the ASCENT trial of a new drug, Sacituzumab (Trodelvy). This belongs to a novel class of treatments called antibody-drug conjugates where a monoclonal antibody has a powerful drug linked to it that is released when it gets to the targeted cancer cell. Sacituzumab was compared to chemotherapy in patients who had progressive triple negative cancer despite at least two or three prior treatments and was highly effective. Possible side effects include low blood counts and diarrhea. Sacituzumab obtained FDA approval August 2020.

“I am especially encouraged by these results and the opportunity to offer this to appropriate patients,” remarked Dr. Makari-Judson.

For Breast Cancer Prevention

You can't change many risk factors for breast cancer such as age, family history and being female, which is why studies of modifiable lifestyle factors are of great interest.

The gut microbiome (microorganisms residing in our intestines) has a role in estrogen metabolism and in inflammation. One

Continued on page 7

If you are interested in learning more about breast cancer clinical trials at Baystate Health, call the Baystate Regional Cancer Program at 413-794-9875.

Updates in Breast Surgery Spring 2021

Holly Mason, MD

Section Chief, Breast Surgery at Baystate Health

COVID-19

It has been over six months since the last Supporting Hope newsletter. Despite our hopes that we would see improvements in the COVID-19 pandemic, we remain challenged by the limitations that are necessary to keep us all safe.

Despite these limitations, we have continued to be able to care for our patients. Unlike last spring, outpatient surgery has been allowed to proceed. We are fortunate in that most of the breast cancer surgery that we do is outpatient. This has been a relief both to the providers, as well as our patients, and we have heard from many patients who underwent surgery safely and were grateful to have an ally during these difficult times.

ERAS

One of the improvements that has arisen from the challenges of the COVID-19 pandemic was the development of an ERAS (Enhanced Recovery After Surgery) process for breast patients (whether through breast surgery, plastic surgery, or combined procedures). The goal of ERAS is to optimize the post-operative experience in terms of post-op pain and nausea/vomiting. This is achieved through pre-procedure medication, regional blocks, medications used during the surgery, and minimization of narcotic usage in the post-operative setting. Doing so allows for early oral intake, ambulation and the decreased use of narcotics in the management of post-operative pain. The ERAS process requires multidisciplinary coordination between the pre-operative, operative and post-operative staff, anesthesia, breast surgery and plastic surgery.



Holly Mason, MD

One of the goals of our ERAS pathway is to allow appropriate mastectomy and reconstruction patients who would normally spend the night in the hospital to go home on day of surgery. This is certainly not a “drive-thru mastectomy” in any sense, as patients are evaluated after surgery before there is a discussion of discharging them to their homes. Thus far, patient satisfaction with this option has been extremely high.

THE BREAST SURGERY AND PLASTIC SURGERY TEAM

Baystate Health has been very fortunate to add two new plastic surgeons to our team. Dr. KC Collins is a native of Pittsfield, Massachusetts, and returns to western Massachusetts after completing his training at the Harvard Combined Plastic Surgery Residency. We are lucky that one of his main areas of focus is breast reconstruction. We have also added Dr. Aparajit Naram who returns to western Massachusetts after completing his training at the University of Massachusetts Plastic Surgery Residency, additional training in hand and micro vascular surgery at UT Southwestern and practice in southern Pennsylvania. Together with Drs. Benjamin Schalet and Pranay Parikh, we now have a full complement of plastic surgeons to provide high-quality, cutting-edge, timely breast reconstructive care and team-based care for complex procedures.

Continued from page 6

study looked to better understand the role of the gut in estrogen metabolism and increasing and maintaining estrogen exposure, which can certainly be a factor for estrogen receptor positive breast cancer. This study also noted that the gut enriched with bacteria may also contribute to inflammation and risk of triple negative breast cancer.

In a related study 103,020 French women had their diets assessed and glycemic load measured, which is the quantity and quality of carbohydrates. Glycemic index ranks carbs by how much sugar is released after ingestions. Foods with a lower glycemic index include whole grain breads, vegetables, sweet potatoes, legumes and certain dairy foods. Foods with a higher glycemic index include white bread, starchy vegetables, cereal, oat milk, cakes and cookies. A diet containing higher numbers of high glycemic foods may lead to insulin resistance and increasing breast cancer risk.

Dr. Makari-Judson notes this study supports others in encouraging healthy eating—like the “Mediterranean diet,”

which includes lean sources of protein along with lower glycemic foods—to reduce risk of postmenopausal breast cancer. There continue to be many unanswered questions and opportunities for ongoing research.

#ROHPINKYPROMISE

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Does Body Size Impact the Likelihood of Breast Cancer?

Catherine Askew

Doctoral Student, University of Massachusetts

The relationship between body size and breast cancer is complicated. Body mass index (BMI) is a commonly used measure of body fatness, calculated using weight and height. Women who are overweight or obese—that is, have a higher BMI—when they are postmenopausal are at an increased risk of developing breast cancer. On the other hand, premenopausal women with higher BMI have a reduced risk of breast cancer. Research has shown that body size in adolescence also has an impact on breast cancer risk in both premenopausal and postmenopausal women, independent of adult BMI. Women who report having a larger body size or a high BMI in adolescence have a reduced risk of breast cancer as an adult. Their risk is approximately 15-30% lower when compared to women who report having a low BMI in adolescence.

How can body size during adolescence alter risk of breast cancer in later life? To explore this, our team utilized data collected from a large group of female nurses over several decades. The nurses are sent questionnaires to fill out every two years to record lifestyle and medical information. On one questionnaire the women were asked to report their body size at ages 5, 10, and 20 based on a 9-figure pictogram. Breast tumor samples were obtained for women who went on to develop breast cancer. The genes being expressed by the tissue samples were then measured.

Our team analyzed the gene expression data to understand what is happening within the tumor sample. We also wanted to know if gene expression patterns in tumors were different for women who had smaller body sizes versus larger body sizes. Initially, we did not find differences in individual genes. Next, we analyzed groups of genes that work together in a “biological pathway.” For example, there are 200 genes in the pathway responsible for a cell’s initial response to being exposed to the hormone estrogen and a further 200 in the later response to estrogen. When we analyzed the gene expression data grouped into biological pathways, we found several key differences in the tissue activity of women with a



larger adolescent body size compared to women with a smaller adolescent body size.

In the tumor tissue samples, our team found that biological pathways associated with cell proliferation were downregulated in women who had larger adolescent body sizes. Excessive, uncontrolled cell proliferation is a hallmark of cancer. The down-regulation of pathways involved in cell proliferation in women with larger adolescent body sizes may explain their lower risk of developing breast cancer. Further, in ER-negative tumors, those that lack estrogen receptors, pathways associated with insulin activity were down-regulated in women with

larger adolescent body size. This may indicate having a higher BMI during breast development has lasting effects on insulin pathway activity within breast tissue that may impact cancer development.

What are the implications of this research?

- Our work, as with past studies, indicates that adolescent body size can have life-long effects on breast cancer risk. Adolescence is a critical and sensitive developmental period for the new and developing breast tissue. Influences such as BMI during this critical window of development appear to have permanent effects on the breast.
- Surprisingly, having a larger body size during adolescence can reduce the risk of breast cancer.
- However, it cannot be recommended that individuals gain weight during adolescence to reduce breast cancer risk in later life. Obesity in adolescence and adulthood is strongly associated with multiple other serious health conditions (e.g., diabetes) offsetting the benefit for breast cancer.
- Importantly, by identifying the biologic pathways underlying these effects, we may be able to find other ways to target these pathways, thus providing a new prevention opportunity.

The next research step will be to confirm these initial findings.

Did you know:

that Rays of Hope
Corporate Sponsorships
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For more information on how to become
a Rays of Hope corporate sponsor,
visit BaystateHealth.org/RaysofHope
or call **413-794-8001**.

Sunscreen and Breast Cancer: Is there a Connection?

Sallie Schneider, MD

Director, Biospecimen Resource and Molecular Analysis Facility

Every day we are exposed to hundreds of chemicals or other agents. These exposures are in the air we breathe, the water we drink, the dust particles in our house, but also may be in the food we eat and personal care items we use, including lotions, makeup and hair products. For the most part, these environmental exposures have little to no effect on our health. However, some exposures may increase the risk of health problems and, more specifically breast cancer, in a subset of women.

Our laboratory at Baystate Medical Center is interested in studying exposures to chemicals, such as oxybenzone (BP3) and propyl paraben (PP), which can act like estrogen and are found in a number of personal care products. We are interested in whether these chemicals increase or change inflammation, the division of milk duct cells or increase the DNA damage in normal human breast tissue. We are also interested in whether one's weight, age or health history impact these effects. This is exciting work because while epidemiologists have noted associations between certain chemical exposures and breast cancer risk, the reason for the differences in susceptibility to breast cancer between women is unknown.

Of particular concern is sunscreen, which contains the chemical BP3. This chemical is great at absorbing ultraviolet rays from the sun, but unfortunately it also looks and acts like the hormone, estrogen, which can drive breast cancer growth and alter the activity of cells in our body that fight off infection. Mineral-based sunscreens are not worrisome since they contain zinc oxide or titanium dioxide, which act like a physical barrier reflecting the sunlight away from the skin before it can be absorbed. Alternatively, chemical-based sunscreens are often easier and more luxurious to apply since they are lightweight, readily absorbed, and do not leave behind a white residue. This convenience can come with a caveat since it has been found that following the use of chemical sunscreens, alarming levels of BP3 are absorbed into the body.

We are fortunate that Rays of Hope has created the Rays of Hope Breast Research Registry. This invaluable resource allows us to do what other laboratories can not, which is to directly expose normal human breast tissue to chemicals and look for damaging changes. The tissue often comes from women who are having their breast reduced and are willing to donate the tissue to research since it would have otherwise been thrown away. This allows us to expose a

tissue slice directly to the chemicals of interest to measure all of the responses or isolate the milk duct cells (where cancer usually develops) to look at how those cells specifically respond. What we see is variations in how breast tissues from different patients respond to BP3. As such, we can try to understand this type of variation and whether it might indicate a potential risk factor for developing breast cancer in the future.

Could we predict those women who might be at risk? Our current studies approach this question from two different angles. We examine how BP3 can change our immune cells (the ones that should fight off cancer) and we look at how BP3 affects the milk duct cells specifically.

In a recently published research paper, Kelly Gregory, PhD, of the Pioneer Valley Life Sciences Institute, demonstrated that tissue from a small sub-population of women responded differently from others when the tissues were exposed to BP3. She observed that BP3 changed the behavior of their inflammatory cells so that they looked more like the tumor-associated inflammatory cells that ultimately "help" pre-cancerous cells grow or move. To test the concern that BP3 might help cancer cells move away from the tumor and settle in other organs (metastasis), we shifted back to animal studies.

A University of Massachusetts graduate student, Stephanie Morin, used an estrogen receptor negative breast tumor animal model to test the idea that BP3 exposure would facilitate tumor development and that this pro-tumor activity was likely caused by changes in inflammatory cell activity. Her study demonstrated that if a mouse already had breast cancer, exposure to BP3 helps breast tumor cells to seed and grow in the lung. This is an important observation that will require further studies, but may indicate that chemical sunscreens containing BP3 should not be recommended for people currently fighting breast cancer and they should utilize mineral-based products instead.

We are fortunate to have access to the Rays of Hope Breast Research Registry, which offers a unique and invaluable resource to study how chemicals found in the environment affect women with different backgrounds.



Sallie Schneider, MD



Screening Mammography During a Pandemic: How We Are Doing It

Jennifer Hadro, MD

Interim Medical Co-Director of Breast Imaging, Baystate Breast and Wellness Center



Jennifer Hadro, MD

Most of us can remember a time in March 2020 when it began to hit us ... this pandemic is real! Whether it was children suddenly learning from home, changes in the way we work, or mandated masks, we realized our lives would be altered for the foreseeable future.

The rapid changes to the healthcare system were also dramatic. As this was a “novel” or new virus about which we had little data, the response of the healthcare system was fluid as we adapted to new information, often daily.

For breast imaging specifically, this meant suspending screening exams for women who did not have a breast abnormality, such as a lump. During the months of April, May, and the first part of June, screening exams were halted across the state per a mandate from Governor Baker. This enabled us to limit the spread of the virus (also known as “flattening the curve”) by limiting exposure of patients to other patients, and to our staff. This halting of screening also preserved the precious personal protective equipment resources for those on the frontlines when such materials were scarce.

However, this lull in screening activity was deceptive, as we were almost immediately devising a plan to accommodate our patients whose screenings were delayed. When we were able to start screening mammography again in June, we had a backlog of more than 9,000 patients who needed their mammograms! We knew we had to maximize the number of women we screened with mammography, while also ensuring the safety of our patients and staff.

Several changes were made to accomplish these goals, and are still in place today. Numerous mammogram

appointments were created, with the addition of weekday evening and weekend hours at the Baystate Breast and Wellness Center, Baystate Noble Hospital, Baystate Franklin Medical Center, and at several of our outpatient facilities. The time allotted to perform a screening exam has been lengthened, to allow for thorough cleaning of the mammography machine, exam room and changing rooms between patients. The waiting rooms also have been modified with signs posted to allow for proper social distancing while waiting and the “traffic” flow was made one-way to minimize contact with others. Locker use was discontinued to minimize contact between patients. We also require that all technologists and doctors must wear masks and eye protection at all times, and gloves when in direct contact with patients. We have endless amounts of hand sanitizer and soap, and we work as a team to ensure that proper protocols are followed.

Now as 2021 arrives we look forward to brighter days and arrival of the vaccine for all. However, while we wait, it is important for women to not delay their screening mammograms! Due to the hard work and dedication of our breast imaging team, we are able to safely offer screening mammography. It is our hope that patients feel confident that they will receive safe and competent care at our Baystate Health breast imaging facilities throughout the pandemic as well as thereafter.

BIG WIG Thank You



Shout out to these participants for showing off their amazing fundraising skills by each raising \$1,000 or more online in 2020! Their outstanding efforts gained them the title of Rays of Hope BIG WIGS! They received a sweet Rays of Hope tote bag FULL of goodies including a ROH BIG WIG hat, a collector's pin, a journal, a thermal

tumbler and much, much more! Our SUPER BIG WIGS each scored a large cooler from our friends at Pelican Plastics.

For information on how you can become a 2021 Rays of Hope BIG WIG and grab all the sweet swag, check out page 3.

Big Wigs

Deb Alves
Cindy Anderson
Joanne Leary-Beaudry
Kara Bombard
Marty Degen

Sue-Ann Hilton

Jackie Rodriguez
Michelle Shattuck
Niloufar Shoushtari
Randi Travers
Debra Weibel

SUPER Big Wigs

Paulette Gibson
Sara Scibelli

Surviving and Thriving

Deb Alves

Deb Alves has been a long-time supporter of Rays of Hope. She was already volunteering in honor of her grandmother when she herself was diagnosed with breast cancer. Her support for a cure intensified in November of 2019 when she herself was diagnosed. Deb shares her survivorship journey and talks about how Rays of Hope has positively affected her life.

How are you involved with Rays of Hope?

For many years I volunteered for Rays of Hope in the Survivor's Pink Hope Lounge. My Grandmother had breast cancer during a time when treatment, prevention and diagnosis were not an easy thing. So, I gave back in her honor and made sure I had my yearly mammograms.

What is your team name?

How did you come up with that name?

Our team name is "I Pink I Can: Doing It For Deb." We chose the name as a symbol of perseverance along with some humor. Our logo is a pink train with our team name printed across it.

How many team members are there?

We currently have 15 team members.

How do you fundraise as a team?

We had a few different fundraisers. We sold the team shirts as well as some bracelets we made. One of my fabulous friends also made key chains that we sold. We also posted my story on Facebook and asked for donations via our Rays of Hope fundraising page. I'm proud to say that our team raised over \$3,000!



Deb Alves



Deb Alves

How does supporting Rays of Hope and participating in the event make you feel?

It is a feeling of joy and peace for me. When I was first diagnosed with breast cancer I was very sad and angry.

The joy of seeing so many survivors is incredible! The thrill of having family and friends support me was amazing.

Do you do anything special, before, after or during the walk?

This year the virtual event made things different than previous years, but my team met at a local park and we walked 3.1 miles socially distanced and wearing our masks.

How do you feel you have benefitted from Rays of Hope?

Rays of Hope helped me feel connected to other survivors who are also dealing with breast cancer.

The medical team and support team at Baystate Health are amazing. I was able to talk to a social worker when I was having a challenging time. I could also call my nurse navigator with questions.

I know there is so much that is done through Rays of Hope that tried to continue during the pandemic and that it was a challenge for those organizing the event, but they persevered and that gave me hope.

Is there anything else you would like to say?

I am a nurse who faithfully got my mammograms to honor my Grandmother. I was in complete shock when I received my diagnosis. I went through all the emotions and then got ready to fight. I had an amazing support group surrounding me and keeping me positive. I was initially told that I had one tumor. During my first surgery, two more small tumors were discovered. Thankfully those were removed during my second surgery. I am thrilled to say that my annual mammogram shows no evidence of disease!

Nothing is impossible, the word itself says "I'm possible"!

– Audrey Hepburn



Looking for Peace of Mind?

Taking Care of Your Will Can Help

As Baystate Health connects with friends of Baystate Health Foundation, we hear the relief in many voices at finally making time to review their estate plans.

“When I completed my estate planning, I enjoyed great peace of mind. It is satisfying to know that my wishes and loved ones are taken care of.”

“I realized I had not updated my will in twenty years. So much has changed since then. Spending the time to update it gave me comfort. I could support my family and the charities I care about, like Baystate Health Foundation.”

“No one wants to think about their own death. I’ve put off making a will for years but with the coronavirus I realized the time is now. I’ve worked hard my whole life and want to make sure my assets do good for my family and the charities I love instead of going to taxes.”

If you are like 60% of Americans who have put off their estate planning, please contact us for a free Will Guide or Guide to Updating Your Will to get started today. We are here to help you enjoy peace of mind and also ensure your wishes are heard.

Reach out to Kylie Johnson at 413-794-7789 or Kylie.Johnson@BaystateHealth.org.

Young Hope

At Rays of Hope, we continue to be impressed with the youth in our community. There are so many groups, organizations and individuals who take the time to join us in the fight toward the cure of breast cancer. We feel they deserve some special recognition for their amazing efforts, which is why we are adding a new feature, titled Young Hope, to each edition of *Supporting Hope*. Each article will shine a spotlight on an outstanding young individual or group that takes the initiative to support Rays of Hope and its mission with their time and talents. They are our future.

In this edition, we are highlighting the efforts of the National Honor Society (NHS) students at Pope Francis Preparatory School in Springfield for their fantastic fundraising skills! Since 2016, the NHS students have participated in the Rays of Hope Walk and Run Toward the Cure of Breast Cancer and coordinated pink dress down days to raise funds. In December they made a \$3,181 hope-filled donation, which brought their total contributions to an astounding \$8,484.52!

“Thank you for the opportunity to have our students from NHS participate in such an important cause,” shared Pope Francis NHS Advisor, Christine Mars. “This is the fourth year we have participated and our best yet!”



Pope Francis

Thank you to Christine, the Pope Francis NHS students and to everyone who supported their fundraising endeavors. Your efforts have a positive impact on local breast cancer survivors and toward breast cancer research. Great job!

2020 RAYS OF HOPE CORPORATE SPONSORS

continued from page 2

Virtual Post Sponsors

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East Longmeadow High School
Easthampton Fire Fighters Association,
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Greater Springfield Credit Union
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Greater Springfield
Unleashed Nutrition
WE ARE ALL IN THIS TOGETHER
Wilbraham Middle School



ROH Chairs Al and Jackie Rodriguez are presented with a check for \$15,000 from the Springfield Thunderbirds Pink in the Rink 2020 event. From left: Springfield Mayor Domenic Sarno, Jackie Rodriguez, Nathan Costa-President of the Thunderbirds, Screech and Al Rodriguez.



Survivor Photos
2020





Until there is a cure **HOPE** will never be canceled

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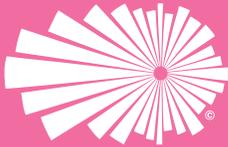
Supporting Hope Editors: Grace Makari-Judson, MD, Michelle Graci, Cait Roberts, Michelle Shattuck and Kathy Tobin. Editorial Consultants: Maureen Sullivan



PSSST...!

**SAVE
THE
DATE**

OCTOBER 24, 2021



Rays of Hope
Walk & Run Toward the Cure of Breast Cancer
Baystate  Health Foundation