Broadening the Conversation About Cancer

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ADVANCES IN BONE MARROW TRANSPLANTS ARE MATCHING PATIENTS TO INNOVATIVE TREATMENTS

ARTIST FINDS PEACE AFTER KIDNEY CANCER GROUPS TOUCHED BY CANCER PROVIDE COMFORT TO PATIENTS RISK ASSESSMENT PROGRAM CELEBRATES SILVER ANNIVERSARY

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SPRING/SUMMER 2016

EXPANDING HORIZONS

rowth, opportunity, and renewed strength characterize the climate at Fox Chase Cancer Center in 2016. With a significant financial turnaround underway, we celebrate both our Center's legacy as an oncology leader and our future as a major player in the field.

Our cover story on page 6 examines an area with particular meaning to me as a clinician hematologic cancers. Today, we are seeing outcomes we could not have expected when Kenneth Mangan established our bone marrow transplant program at Temple University Hospital. Thanks to his leadership and the work of many others, we are pushing boundaries by performing bone marrow transplants for patients once denied this option because of age, HIV status, religious beliefs, or the availability of ideal donor matches. Our clinical trials are yielding promising results as physicians including Jean-Pierre Issa and Patricia Kropf pursue new targeted therapies with the potential to change the standard of care.

Propelling this growth is the program director, Henry Chi Fung. A national leader in hematology/ oncology, he has the vision to carry on the legacy of the Fox Chase– Temple BMT Program. I was fortunate to recruit him soon after I arrived at Fox Chase. Just this February, we opened a \$2.1 million outpatient clinic, right next to our inpatient unit — where we can provide seamless care for patients.

There is also extraordinary growth in cancer prevention. When our Risk Assessment Program (RAP) began in 1991, the idea of preventing a disease like cancer was novel. On page 28, we recount our progress. Clinical genetics had not yet grown into a sophisticated field of study, but founder Mary Daly had the foresight to educate women with a family history of breast and ovarian cancers about cancer risk and screening. The program became a national model.

Today, under Dr. Daly's continued leadership, our program focuses on more than 55 genes associated with cancer and includes those at high risk for multiple



cancer types. The pioneering work of Dr. Daly and her team has introduced the word "previvor" into our lexicon — someone who has survived a predisposition to cancer but has not been diagnosed with the disease.

It is rewarding to track our growth thus far, but it is even more exciting to contemplate the great potential of what lies ahead. We again move into uncharted territory, ready to discover the next breakthroughs and develop the newest treatments.

Richard I. Fisher, MD PRESIDENT AND CEO

Forward Spring/Summer 2016

FORWARD magazine is published twice a year for friends of Fox Chase Cancer Center by the communications department of Fox Chase. One of the leading cancer research and treatment centers in the United States, Fox Chase was founded in 1904 as one of the nation's first cancer hospitals, and was among the first institutions to be designated a National Cancer Institute Comprehensive Cancer Center in 1974. Fox Chase joined Temple University Health System in 2012.

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FEATURES

6 Gift of Life

Due to major clinical and research advances in the field, the Fox Chase–Temple Bone Marrow Transplant Program, which started in the late eighties, is saving more lives than ever before.

12 Feelin' Whole Again

After cancer treatment, many patients may feel uncomfortable about their physical changes, such as hair loss or scarring. A Fox Chase registered nurse and a local businesswoman are helping patients look good and feel better about themselves.

DEPARTMENTS

2 ADVANCE: Research Highlights

Researchers examine the driving forces behind caregivers | New uses for existing cancer drugs | Delaying head/neck cancer treatment can be detrimental | Targeting of two proteins shows promise for lung cancer patients

16 FOCUS: A Day in the Life: Shelly B. Hayes, Radiation Oncologist

What exactly does a radiation oncologist do all day? Shelly B. Hayes, the director of Fox Chase's Buckingham facility, invites readers to find out.





20 CLOSE-UP: Hope Amid Chaos

Cancer survivor and artist Ed Babiarz felt his world crashing down after a diagnosis of kidney cancer. Thanks to Fox Chase surgeon Robert G. Uzzo, Babiarz got his health back on track — and married the love of his life after more than 30 years together.

22 MAKING A DIFFERENCE: It Takes a Village

After losing a loved one to cancer, the founders of two Philadelphia non-profit organizations have made it their mission to help patients undergoing cancer treatment feel comforted.

24 REVIEW: News of Note

Special Events | Honors & Awards | Notable Accomplishments

28 REWIND: RAP Turns 25

Founded in 1991 by Fox Chase physician Mary Daly, the Risk Assessment Program — one of the very first genetic risk programs — offers education, screening, and counseling to individuals with cancer and those at risk of developing cancer.

WHAT KEEPS CAREGIVERS GOING?

elfless, tireless, — and sometimes overwhelmed. These are typical qualities of caregivers who provide daily emotional support and personal care to a family member or friend with cancer or other chronic illnesses.

Researchers at Fox Chase Cancer Center wondered what drives caregivers. As part of their analysis, 111 caregivers answered survey questions about their experiences. Cancer was the most common chronic illness for which these individuals provided care. The researchers then compared the responses among men and women, spouses and children, and different racial or ethnic groups.

Susan Cobb, Director of Nursing Professional Development and Practice Innovation at Fox Chase, and her colleagues understood the vital role that caregivers play. They were also familiar with research that has outlined the numerous challenges and negative aspects of caregiving. Through the survey, the researchers sought to explore whether this difficult experience can also be positive.

The responses revealed that the experience was positive for many people, although providing emotional and psychological support can be most challenging. Those who cared for a family member with cancer identified more positive aspects of their role than caregivers of patients with other chronic diseases — perhaps because there are more resources available for cancer patients, Cobb explains. Also the majority of caregivers did not use outside services for care.

Although some characteristics were based on the diagnosis of



"It seems that daughters [who are caregivers] may need more support and recognition of the impact on their schedule."

- SUSAN COBB, DIRECTOR, NURSING PROFESSIONAL DEVELOPMENT AND PRACTICE INNOVATION

the patient, more findings were related to individual characteristics of caregivers, including race, ethnicity, and gender. Non-white caregivers were more likely to have a positive experience than white caregivers, who reported lower self-esteem and a greater impact on their own health.

Male caregivers indicated that helping their loved one with walking, personal care, and hygiene were least challenging. Caregiving also had less impact on men's health than on women's health. Daughters reported the highest negative effect on their own schedule and were the most likely to indicate they lacked family support. "It seems that daughters may need more support and recognition of the impact on their schedule," says Cobb. This is likely due to the fact that many daughters are also juggling responsibilities for their own families.

Informed by this research, Fox Chase plans to update its caregiver guide to provide more information about resources and services.

EXISTING DRUGS HAVE NEW PURPOSE

inase inhibitors are a well-established component of the anticancer drug arsenal. However, patients often develop resistance and experience adverse side effects because the inhibitors non-selectively affect a broad range of kinases.

Fox Chase Cancer Center investigators recently used an innovative approach that could pave the way for strategies to improve the effectiveness and safety of kinase inhibitors.

"Mutated kinases can act like entirely new beasts, resistant to drugs and relentlessly driving the growth of cancer."

- JEFFREY R. PETERSON, ASSOCIATE PROFESSOR, CANCER BIOLOGY PROGRAM

Kinases are proteins that play a key role in a variety of cell processes, including growth, metabolism, and death. Because these processes often go awry in cancer cells, the development of kinase inhibitors is a major focus of cancer research. However, these drugs can cause adverse side effects in patients or become less effective over time.

"These mutated kinases can act like entirely new beasts, resistant to drugs and relentlessly driving the growth of cancer," says senior investigator Jeffrey R. Peterson, associate professor in the Cancer Biology Program at Fox Chase.



"Our studies suggest that these existing drugs, or molecules like them, could be rapidly shifted to benefit certain cancer patients who no longer respond to the current drug."

In a study recently published in *Cell Reports*, Peterson and his team examined the effects of 183 small-molecule compounds on the activity of 76 kinases, some of which carried mutations that conferred resistance to approved drugs. This unprecedentedly large-scale screen revealed molecules that are more selective than approved drugs against mutant kinases and therefore less likely to produce resistance or adverse side effects.

The researchers also identified several approved drugs, currently used to treat other types of cancer, which unexpectedly inhibited kinases with resistance mutations — suggesting that these drugs could be repurposed for new uses in treatment-resistant patients.

The next step is to test some of these repurposed drugs in clinical trials. "We hope to test more and more drugs as they are developed for activity against more and more kinases that drive cancer and other diseases," Peterson says.

DELAYING HEAD/NECK CANCER TREATMENT DANGEROUS

lengthy delay in treatment after diagnosis of head and neck cancer can be detrimental to the health of patients. Colin T. Murphy, a radiation oncologist at Fox Chase Cancer Center, says that even though treatment may be delayed for several reasons after the original diagnosis, a delay beyond 46 days can increase the patient's risk of dying from the disease, particularly for patients diagnosed with early-stage cancer. The risk is higher when treatment is delayed 67 days or more.

"We were surprised to see that one in four [head and neck cancer] patients in the United States experiences treatment delays."

- COLIN T. MURPHY, RADIATION ONCOLOGIST

The research findings were recently published in the *Journal* of *Clinical Oncology*.

Murphy and his research team used information from a national cancer registry dataset of more than 50,000 head and neck cancer patients to explore the effect of treatment delays. "We were surprised to see that one in four of these patients in the United States experiences treatment delays," Murphy says. "Patients with head and neck cancer often require care from multiple providers across many disciplines. This whole process takes time, and it is important to manage patients appropriately," he explains.

The Institute of Medicine has listed timeliness of care as a prime indicator of quality, but delays in treatment seem to be increasing in the United States. Delays occur because of how long it can take to receive a second opinion, get an appointment, or transition from one facility to another. Radiation therapy and combined modality treatments are more sophisticated and require extra time to coordinate. Preauthorization by insurance companies for advanced imaging can result in further delay.

At certain centers, these delays can be minimized. Fox Chase now offers the Rapid Access Service a program that provides next business day appointments. In addition, experienced nurse navigators can help patients coordinate their care among multiple providers.



TARGETING TWO PROTEINS TO SAVE LIVES

linical trials have recently generated excitement about drugs that stop a cancer-driving molecule called heat shock protein 90 (HSP90). However, despite early signs of success in lung cancer, not all patients have responded equally well.

Fox Chase Cancer Center researchers recently shed light on this problem through the discovery of two proteins that cause resistance to HSP90 inhibitors in lung cancer cells. The findings could lead to the development of biomarkers that predict patient responses to HSP90 inhibitors, as well as new treatment strategies that target these proteins to improve the sensitivity of cancer cells to these promising drugs.

"We have discovered two proteins in lung cancer that may be of prognostic value, help guide clinical decision-making, and eventually emerge as direct therapeutic targets," says lead study author Tim Beck, an MD, PhD candidate at Fox Chase. "Hopefully this will conclude with improved outcomes for patients with lung cancer."

Beck, in collaboration with his advisor Erica Golemis, co-leader of Molecular Therapeutics at Fox Chase, set out to identify genes that create resistance to an HSP90 inhibitor called ganetespib.

Their large-scale screen of supposed drug resistance-associated proteins revealed that depletion of two proteins — anti-Müllerian hormone (AMH) and its type II receptor (AMHR2) — increased the sensitivity of non-small cell lung cancer cells to ganetespib.

Beck and his collaborators are now focusing on the clinical translation of these findings. They are



"[Our team has] discovered two proteins in lung cancer that may... eventually emerge as direct therapeutic targets."

— TIM BECK, MD, PHD CANDIDATE

working on establishing a reliable method to screen for AMH and AMHR2 in patients. "Once we can reliably detect AMH or AMHR2, we would propose clinical studies to select treatment options for patients based on the presence or absence of these two proteins," Beck suggests.

The researchers have also begun collaborating with a small pharmaceutical company that is developing antibodies against AMHR2 for the treatment of ovarian cancer.

"Our hope is that this antibody can be used to detect levels of AMHR2 in lung cancer, and perhaps at some point in the notso-distant future, the antibody can even be used as a therapeutic agent," Beck says.



GIFT OF Iffe

Advances in Bone Marrow Transplants are Matching Patients to Innovative Treatments.

> BY LEAH LAWRENCE PHOTOGRAPH BY CLINT BLOWERS

ecause she was housebound, Patricia Reis, 76, had lots of free time. Normally active, Reis had "just been reading and staring at four walls all day."

Reis was about 35 days into a required 100-day isolation period after undergoing a stem cell transplant at the Fox Chase

Cancer Center–Temple University Hospital Bone Marrow Transplant Program (Fox Chase-Temple BMT Program). The first 100 days after the procedure are critical because a patient's fragile immune system is most at risk for complications.

Almost a year earlier, Reis had been battling periods of constant fatigue leading up to her diagnosis of stage IV diffuse large B-cell non-Hodgkin's lymphoma, a common but aggressive form of lymphoma. Her first hospital told her to consider hospice care due to the advanced nature of the disease and her age. Upon visiting Fox Chase for a second opinion, Reis met Henry Chi Fung, director of the Fox Chase–Temple BMT Program. Under his care, Reis began a course of intensive chemotherapy, which allowed her to attend her granddaughter's wedding about six months after In 1979, the first successful autologous bone marrow transplant in a leukemia patient was completed. Autologous stem cells come from the patient's own blood or bone marrow.

In July 1987, the Temple University Hospital Bone Marrow Transplant Program was established by physician Kenneth F. Mangan to treat patients with leukemia, lymphoma, aplastic anemia, or other disorders that benefit from a bone marrow or stem cell transplant. The program performed its first allogeneic bone marrow transplant in November 1989 and its first matched unrelated transplant in December 1996. In 2000, the program relocated to Jeanes Hospital, an acute-care community hospital located adjacent to Fox Chase's campus in Northeast Philadelphia.

"Jeanes' campus had better space and accommodations for patients, particularly those who came in from outside the city," says Paul F. Engstrom, acting chair of the department of hematology/oncology at Fox Chase. "This location was more convenient, had complimentary valet parking, and provided a larger space to work in with better accommodations."

In 2012, Richard I. Fisher, current president and CEO of Fox Chase, and Fung helped direct the expansion of the

"We determine a patient's physiological age, not their chronological age. Our oldest patient to receive a transplant was 81."

— HENRY CHI FUNG, DIRECTOR, FOX CHASE-TEMPLE BMT PROGRAM

her diagnosis. However, she was not yet out of the woods.

"Dr. Fung told me that if I had the stem cell transplant, he was very positive that the lymphoma would not come back," she says. "But if I did not do it, there was little hope."

The high-dose chemotherapy attacked her cancer by killing off lymphoma cells, but it also destroyed her healthy bone marrow, preventing it from making new blood cells. In order to replace the damaged bone marrow, she needed a stem cell transplant. At her age, few cancer centers would be willing to perform the procedure. Luckily, she was in the right place at Fox Chase–Temple.

HISTORY OF TRANSPLANTS

Before bone marrow transplants, a leukemia or lymphoma diagnosis was often a death sentence. The procedure was pioneered by physician E. Donnall Thomas and a team of researchers at the Fred Hutchinson Cancer Research Center in the 1960s and 1970s. In 1968, the first successful non-twin allogeneic transplant occurred. Allogeneic transplant recipients receive blood-forming stem cells from a genetically similar, but not identical, donor — often a sister or brother. hematology/oncology program after Fox Chase officially became part of the Temple University Health System.

THE PERFECT MATCH

In 2008, Heather Walters, 29 at the time, worked as a physician assistant in an oncology office when she began to notice some odd symptoms. When running, she suddenly felt more out of breath than normal, and she also had some swollen lymph nodes on her neck and under her arms.

Bloodwork soon revealed that Walters had acute lymphoblastic leukemia. The diagnosis came as a blow to Walters and her husband, who were trying to have a baby. There was no time to undergo fertility preservation.

After completing chemotherapy, Walters was in partial remission, and her oncologist told her she would need an allogeneic transplant. When looking for a suitable donor, physicians test bone marrow for human leukocyte antigen (HLA), a marker found on the body's cells. Ideal donors will have HLA that closely matches the patient in need. Physicians typically look for a 10 out of 10 HLA match. Luckily, Walters had one full sister, and she was a perfect match.





Top: Jean-Pierre Issa and Patricia Kropf. Bottom: Carol Ellis

More than seven years out from her diagnosis, Walters is now in complete remission. Since her transplant, she has run two marathons, three half marathons, and one 25K trail race. Walters and her husband also fulfilled their dream of becoming parents by fostering and then later adopting two daughters.

Unfortunately, not everyone who needs a transplant is lucky enough to find a perfect match within their family. While on a family vacation, Carol Ellis, 69, a normally active, healthy grandmother, noticed she was suddenly unable to keep up with her grandchildren. Upon returning home, her symptoms worsened, and under the advice of her physician son she immediately went to the emergency department. A few diagnostic tests later, the breast cancer survivor was told that she needed a blood transfusion and would undergo a bone marrow biopsy to find out more information.

Ellis went to Fox Chase, where she was diagnosed with myelodysplastic syndrome, a form of cancer where

immature blood cells in the bone marrow do not mature into healthy red blood cells, white blood cells, or platelets. Within two weeks of her first appointment, Patricia L. Kropf, deputy director of the Fox Chase–Temple BMT Program, enrolled Carol into a clinical trial (SPORE Trial 21357) where she was treated with decitabine and arsenic — one of three regimens being tested. Although Ellis achieved remission after three cycles of chemotherapy, myelodysplastic syndrome is only cured through allogeneic transplant.

"Carol is 69 years old, and transplant after age 65 can be a bit risky; however, she was in perfect health aside from the new diagnosis of myel-

odysplastic syndrome," Kropf says.

To find a donor for Ellis, they tested her three children and her own twin sister, but no one was a match. "The only option left was to turn to the National Bone Marrow Bank," Ellis says.

The National Marrow Donor Program and its Be The Match Registry (www.bethematch.org) provide bone marrow or umbilical cord blood transplants from unrelated volunteers. According to Be the Match, about 70% of patients who need a transplant will not find a suitable donor within their family. As she was approaching the optimal window for transplant, the registry luckily produced a 45-year-old, 10 out of 10 HLA match for Ellis.

Now, Ellis is doing fabulous. "Carol's spirit and positive attitude are amazing. She really brings sunshine everywhere she goes. When caring for her in the hospital I rarely left her room without a good chuckle — she's that uplifting and funny," Kropf says.

BREAKING THROUGH OLD BARRIERS

The average age of diagnosis for hematologic malignancies like Ellis's is between 65 and 70 years.

"When bone marrow transplants were first performed, many physicians and oncologists thought the age limit for the procedure was 50 years, which is not true," Fung says. "If we only performed transplants on patients younger than 60 years, many patients who need this life-saving procedure would be excluded from treatment. That is why there is no age limit for transplants at Fox Chase–Temple."

From 2011 to 2015, Fox Chase–Temple performed more than 350 transplants on patients younger than 65, and 110 on patients older than 65. One of those successful transplant recipients was Patricia Reis, and despite being stuck inside her house during her isolation period, she couldn't be happier with her procedure. She is also very thankful for Fung — who she jokingly referred to as her "boyfriend" during treatment because she always looked forward to seeing him. The feeling was mutual.

"We determine a patient's physiological age, not their chronological age," Fung says. "Our oldest patient to receive a transplant was 81."

Age is not the only boundary that Fox Chase–Temple is pushing. Fung explains that locating a related donor can often be difficult. With only a 25% chance of a sibling being a suitable match, more patients must turn to the Be The Match Registry to find a donor. Although there are more than 20 million donors in the registry, the majority of them are Caucasian, making it difficult for patients of other racial/ethnic backgrounds. Fung says that as many as 30% to 40% of patients could die before transplant because they are unable to find a donor.

"One of the many advances over the last few years is that we are now doing more haploidentical transplants," Kropf says. A haploidentical transplant is a related donor that is only a half-match -5 out of 10 HLA - to the patient. With this new option, a patient's parents are always a half-match, if they are still alive, and a patient's children are all 100% a transplant and managing the complications and medications of the peri-transplant period."

Finally, Fox Chase–Temple is among one of the few transplant programs in the country performing bloodless transplants on patients who refuse blood transfusion because of religious beliefs, such as Jehovah's Witnesses. Typically, patients who undergo transplants require blood transfusion to replace or replenish red bloods cells or platelets. According to Fung, Fox Chase–Temple is now able to modify its protocols so that patients who refuse blood transfusions can still undergo life-saving transplants. The program has successfully completed two bloodless transplants to date.

LOOKING TO THE FUTURE

The Fox Chase–Temple program continues to look to the future of cancer care — not only by addressing the day-today needs of its patients, but by fostering a research program that is constantly at the forefront of discovery.

Kropf and Jean-Pierre Issa, Director of the Fels Institute for Cancer Research and Molecular Biology at Temple University, are leading some of Fox Chase–Temple's research efforts that are focused on changing the cellular

"I was so thoroughly impressed by Fox Chase that I vowed to commit the rest of my life to supporting them, but specifically the BMT unit."

- MICHAEL ELLIS, DONOR AND HUSBAND OF PATIENT CAROL ELLIS

half-matches. The reason this type of transplant is more feasible now, Kropf says, is because clinicians have learned more about preventing and treating graft versus host disease, a disease where the newly transplanted donor cells view the recipient's body as foreign and attacks it.

The Fox Chase–Temple program is also beginning to expand the type of patients they are able to successfully transplant. In the past, patients with HIV-related lymphoma were considered ineligible for stem cell transplantation. According to Stefan K. Barta, assistant professor in the department of hematology/oncology at Fox Chase, these patients are often immunocompromised, making them more susceptible to infections. In addition, their antiretroviral medications often have negative interactions with the drugs required before, during, and after transplant.

The physicians at Fox Chase–Temple have already transplanted a handful of patients who were HIV positive, Barta says. The patients all had positive outcomes and almost as positive as those seen in patients who are HIV-negative.

"We encourage providers to refer these patients to us," Barta says. "We can offer them a way of safely performing identity of leukemia cells, also known as DNA methylation.

There are many types of cells in the human body, yet each cell has the same genetic material, Issa explains. The science of cellular identity is trying to understand how a single set of instructions from the genome can result in 200 or more cellular identities in the body. "What has been discovered over the last few years is that the mechanisms defining cellular identity are often scrambled in cancer — and very scrambled in patients with leukemia," Issa says.

Fox Chase–Temple is currently involved in several clinical trials aimed at altering the cellular identities of different hematologic malignancies. "For many years I have been explaining this concept as diplomacy rather than war," Issa says. "We will re-educate the cells rather than kill them."

Recently, Issa and his colleagues have been working with a second generation of drugs effecting DNA methylation, specifically, a compound called SGI110 or guadecitabine. Early results of these clinical trials, which have included about 50 patients at Fox Chase–Temple, appear to be promising, with better outcomes than those with the first generation of the drugs. As a result, there is now an



Richard Fisher, Heather Walters, Temple University Health System President & CEO Larry Kaiser, Henry Fung, and Philadelphia Mayor Jim Kenney at the BMT outpatient unit ribbon cutting

international phase III trial of guadecitabine, and, if that study is successful, it has a chance of changing the standard of care for these diseases, Issa explains.

In another clinical trial, Issa and colleagues are testing a drug called decitabine in combination with a drug originally derived from Chinese medicine called arsenic trioxide. In combination, researchers have found that these two drugs are very successful at putting patients with leukemia and myelodysplastic syndrome into remission.

Issa is still looking for new and better ways to achieve cellular reprogramming. Unexpected findings from his lab were recently published in *Cancer Research*. He and his colleagues screened FDA-approved drugs and discovered that an old class of drugs called cardiac glycosides had a remarkable effect on cellular identity and were effective at killing leukemia and cancer cells.

"We are planning a trial similar to another ongoing one that will ask the question of whether adding cardiac glycosides, used for heart failure and atrial fibrillation, to standard of care would improve results," Issa says.

According to Fung, these are just a few of the areas that Fox Chase–Temple is exploring in its effort to continue incorporating new targeted therapies and compounds into the treatment of patients who undergo transplant. These efforts are also great examples of the benefits that result from the integration of Fox Chase and Temple University Hospital when it comes to research, teaching, and patient care.

"The BMT program is supported by a team of specialists from Temple University, Fox Chase, and Jeanes Hospital," Fung says. "A good BMT program requires a multidisciplinary approach that includes pathologists, researchers, pulmonologists, cardiologists, and many other sub-specialists."

Frank Serianni, 50, can attest to the benefits of having such a fully integrated program. Serianni has had a long

journey with Hodgkin's lymphoma. When he was first diagnosed at 44, he underwent several rounds of chemotherapy and radiation to his chest. After his second disease relapse, he was referred to Fox Chase–Temple for transplant.

His first transplant was autologous: his own stem cells were harvested in order to be transplanted back into his system after undergoing high-dose chemotherapy. Unfortunately, three months after this transplant, Serianni's

lymphoma returned, and a brief trial on an experimental drug did little to improve his condition.

Therefore, his physicians recommended he undergo a second transplant, this time using cells from his brother. Later, he was diagnosed with constrictive pericarditis, an adverse side effect of the chest radiation. Serianni had to undergo open-heart surgery to correct the condition and was placed in the care of Robert S. Boova, a cardiothoracic surgeon at Jeanes Hospital.

"The whole program is great," Serianni says. "People would joke that the outpatient facility was a dungeon. It was in a basement, but it never felt like it because the staff was so awesome."

Since Serianni's treatment, that has all changed. In mid-February, the Fox Chase–Temple BMT Program held a ribbon cutting ceremony for its new \$2.1 million window-filled outpatient clinic on the fifth floor of Jeanes Hospital, right next to the inpatient unit. "Anyone that's going through a hard time needs to see that there's light, figuratively and literally. It's just amazing to see real light and feel real light in the new clinic," Walters says.

"It's a tremendous achievement that [Jeanes] hospital made available this [outpatient] facility right across the hall from the inpatient unit," Fisher said at the ribbon cutting ceremony. "This [BMT] program is a tribute to the new and the increased collaboration and cooperation between Fox Chase and Temple."

The new facility is where Reis, Walters, Ellis, and Serianni will go for their routine checkups. "Needless to say, I was so thoroughly impressed by Fox Chase that I vowed to commit the rest of my life to supporting them, but specifically the BMT unit," says Michael Ellis, Carol's husband. The Ellises, along with their daughter Susan McGoldrick, recently made a large philanthropic donation in support of the unit.

"Fox Chase is in a class by itself," Michael says. "In addition to the medicine, it has, by far, the most supportive people I have ever been around. When you combine the two, that creates a true gem." ♦ Custom-Fitted Wigs and Nipple Tattoos Can Help Patients Rebuild Flagging Self-Esteem.

Feelin' Whole Again

here are many physical changes associated with cancer treatment: hair loss, surgical scarring, skin rashes. Although some of these alterations are temporary, they can still have a dramatic effect on patients' self-esteem and body image. Some patients lose confidence and may long to return to their prediagnosis appearance.

Fox Chase Cancer Center offers several options to help patients undergoing treatment feel better about the changes. Boo's Boutique, located on the first floor of the Center's Robert C. Young, MD Pavilion, is a specialty retail space focused on helping patients going through treatment and recovery. The boutique opened in 2012 and is named after Louise Binswanger, a longtime friend and patient of Fox Chase, whose grandchildren gave her the nickname "Boo." A partnership between Fox Chase and Jay Ann Intimates, the boutique offers skin care products, breast prosthetics, bra fittings, and clothing.

> By Colleen Owens Photography by Colin Lenton

Gini Gramaglia at her Fox Chase shop 1

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On-site, Private Wig Fittings

n order to help patients cope with hair loss following chemotherapy and radiation treatment, Boo's Boutique also partnered with Gini G's Hair Design Studio, owned by Gini Gramaglia, to offer on-site wig fittings.

As an 18-year-old beauty school student, Gramaglia saw firsthand how devastated patients can be about the physical alterations associated with cancer treatment. At the time, her father had been recently diagnosed with cancer. It was a scary time for her family. "When I was growing up, cancer was the 'C word'; nobody even said the word cancer," Gramaglia says.

As the oldest of four daughters, Gramaglia assumed the responsibility of driving her father to his treatments. Each time she visited the hospital, she was struck by how sad many of the patients looked. "Chemotherapy treatment was much different than it is today," Gramaglia says. "People, especially women, were walking in with no hair. You could see the devastation on their faces."

Gramaglia decided to take action. "Being a hairdresser, I thought, what better way than to do something with patients' hair?" Shortly after she set up her salon, which is located in Southampton, Pennsylvania, Gramaglia learned that the American Cancer Society was recruiting cosmetologists for its "Look Good Feel Better" program, a 12-step makeup and skincare program designed to help patients with cancer improve their self-esteem. She became certified and quickly started teaching programs at local cancer centers and hospitals.

"That's my volunteer work that I still do today, where we teach women how to look good and feel better," she says. Gramaglia also trains other cosmetologists in the program.

Through her work, she recognized the growing need for private wig-fitting services. Gramaglia designated a small area in her salon for these fittings. There is also a private wig-fitting space at her second salon location in Center City Philadelphia.

Gramaglia also offers fashionable hats, scarves, and head wraps at all three locations. During the consultation, Gramaglia works with each patient to match hair color, texture, and style. "Most of the time, people want to look the same as before their treatment," she says. "They want to look as natural as possible: same color, maybe the same style." Other people embrace change.

Because hair loss after chemotherapy is often temporary, Gramaglia usually recommends that her clients select synthetic hair, which offers a high-quality but low-maintenance wig. Synthetic wigs should be washed and air-dried; no heat can be used.

Human hair wigs are also an option, especially for permanent hair loss, but they require more maintenance and come with a higher price tag. These wigs can be washed, blowdried, curled, or straightened. Gramaglia customizes the

"I like that I'm able to give [patients] back that last bit of normalcy."

— JONATHAN BIDEY, NURSE AND 3D NIPPLE TATTOO ARTIST



wigs to each patient by adjusting the sizing, thinning out the hair when necessary, and texturizing.

Gramaglia carries a large inventory of wigs at her three salon locations. As a result, most people can leave their consultation with their new wig or hairpiece. If she does not have a piece in stock, her manufacturers can ship it quickly, sometimes overnight.

3D Nipple Tattoos, Post-Mastectomy

astectomies can also affect a woman's physical appearance and self-esteem. To cope with these feelings, some women opt for surgical breast reconstruction, including a re-creation of the nipple from other body tissue. Other women choose a nipple tattoo after reconstruction. At Fox Chase, three registered nurses are trained in this process.

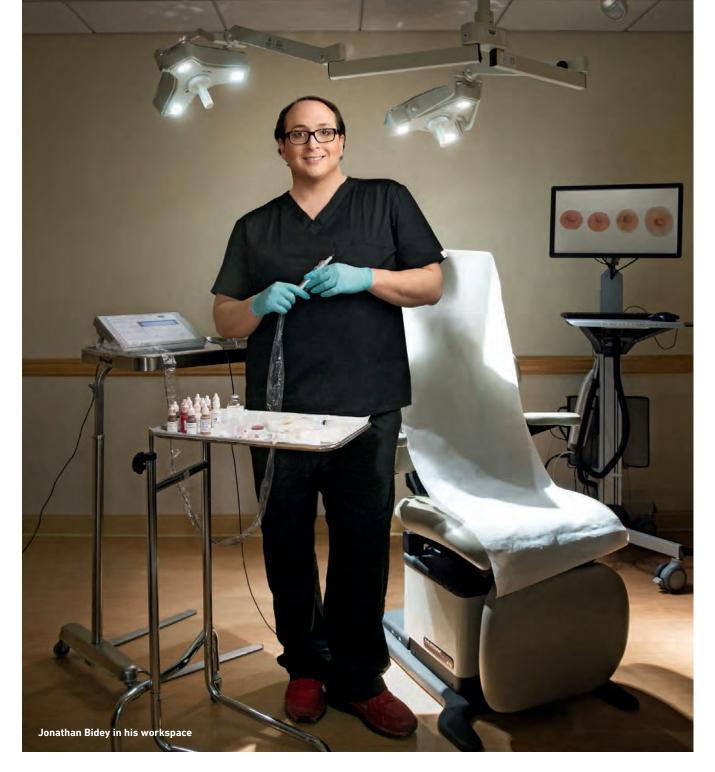
One of these registered nurses, Jonathan Bidey, has been an artist for as long as he can remember, beginning with art classes when he was five or six years old. As he got older, he took private lessons, eventually enrolling in the Philadelphia High School for the Creative and Performing Arts with a major in visual arts.

"I've always used art as a kind of escape or stress reliever," Bidey says. The intensity of his high school study — working steadily on assignments for four to five hours a day — doused some of his artistic passion. He decided to pursue other career interests while still creating art as a hobby.

Since he always enjoyed helping other people, he sought a career in nursing. He started working at Fox Chase when he was 19. After a brief stint at a different hospital, he returned to Fox Chase, working in pulmonary medicine.

Bidey learned the facility offered a program to train staff on creating tattoos for recovering cancer patients. He saw a great opportunity to marry his artistic skills and his strong desire to help others. "It's been such an awesome decision to help patients through art," he says.

Bidey and several other nurses at Fox Chase learned a basic, one-dimension tattooing technique. Bidey took that training a bit further. "With my knowledge base in color theory, shading, and light and shadow, I was able to use different colors to make a 3D effect," Bidey explains.



For the last three years, Bidey has seen patients every Wednesday morning and sometimes on Fridays and creates two to three tattoos a day. The tattoos require two sessions, scheduled one month apart. Each session takes two hours. In the first session, Bidey talks to the patient about color, placement, and the overall effect they wish to achieve. During the first tattooing session, which can last anywhere from 45 to 60 minutes, he creates the bulk of the tattoo.

As a result of the tattooing procedure, the area around the tattoo becomes inflamed. Therefore, he recommends that patients return one month later so he can finish the fine detail areas. "I know a lot of traditional tattoo artists break up their work into sessions so that you can give the skin time to

rest and let the swelling go down," Bidey says. Because these tattoos are created in a clinical setting, they are considered reconstructive procedures, and thus, are covered by insurance. Bidey is thrilled to offer this service at Fox Chase. "A lot of patients have been very expressive with their emotions because they've been coming to us for a few years, and this is the last stop," he says.

Regarding their bodies, many patients with cancer experience a change in mindset. "Before tattooing, they're often ambivalent about their bodies post-treatment, since they view their new bodies as something they're not used to," Bidey says. "I like that I'm able to give them back that last bit of normalcy." \diamond

A DAY IN THE LIFE: SHELLY B. HAYES, RADIATION ONCOLOGIST

MORNING

Shortly before 8 a.m., Shelly B. Hayes, director of Fox Chase Cancer Center's Buckingham facility, walks into the front desk area to discuss the upcoming day with her staff.

The first patient has already arrived and chatted with Sue Brewster, Hayes's assistant, and Kelly Benner, the medical assistant. They've asked the patient, Dieter Falkenstein, about his business and recent trip to Oktoberfest. The atmosphere at Hayes's office is warm and welcoming, and all of the staff members take an interest in the patients who come into the center. "This is my favorite place to visit," Falkenstein tells the women.

Buckingham is unique because it has the inti-

"We've built [the Buckingham facility] from the ground up. My staff is awesome. They're all passionate about what we do."

- SHELLY B. HAYES, DIRECTOR, BUCKINGHAM FACILITY, AND RADIATION ONCOLOGIST

mate atmosphere of a small doctor's office but offers state-of-the-art radiation therapy technologies. In Buckingham, patients receive the same advanced level of clinical expertise and access to clinical trials as patients at Fox Chase's main campus. It is located in Furlong, Pennsylvania, 20 miles from the main campus in Northeast Philadelphia. It offers convenience for patients who live closer to the facility.

Hayes has been the director of the facility since it opened in 2009. "We've built this center from the ground up," she says. "My staff is awesome. They're all passionate about what we do."

She and her staff treat patients for a variety of cancers. Every day, Hayes enjoys a six-minute commute from her home in Doylestown, where she lives with her husband, Marcus, a sports reporter, and three daughters: Savannah, 8, Cecelia, 7, and Rebekkah, 3. Hayes heads back to the radiation planning room. Before she sees her patients, she reviews the treatment plans for three patients who have brain tumors. Hayes collaborates with a medical physicist who creates the radiation plans using an overlay of each patient's CT and MRI scans.

On the scans, she contours the treatment area and the places that need to be avoided. She advises the physicist on what dosage to deliver, and the physicist then creates a treatment plan that delivers the radiation to the precise area both accurately and safely while minimizing damage to the surrounding non-cancerous tissue.

Hayes reviews the treatment plan for a patient with breast cancer whose disease has metastasized to the brain. She treated the patient for breast cancer about

> a year ago, and at follow-up, the patient displayed neurological symptoms. Hayes sent the patient for an MRI and discovered a 3-centimeter brain tumor. The patient had surgery to remove the tumor at the end of December 2015.

"We're going to radiate the surrounding cavity because there's a high chance for recurrence there," Hayes explains. "The brain is a

vital organ, so when the surgeon goes in, they're really just removing the tumor. There's a high likelihood of residual cancer cells being left behind, and the chance for recurrence is approximately 50%. Rather than just monitoring the patients and hoping they're in the good 50%, we take a more proactive approach and radiate the area to prevent a recurrence."

Hayes approves the plan, and the physicist will perform quality assurance checks in time for the patient to be treated the next day.

While Hayes is reviewing the second treatment plan, nurse Janet Farley comes into the planning room to prep Hayes about Falkenstein. He underwent Cyberknife® radiation for prostate cancer three years ago as part of a national clinical trial at Fox Chase that compared five high-dose treatments of radiation to 12 treatments — both as

Shelly Hayes with the Cyberknife®

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an alternative to the typical eight weeks of daily radiation treatment. The Cyberknife® Robotic Radiosurgery System, an innovative, non-invasive alternative to surgery, delivers beams of high-dose radiation to treat tumors with extreme precision. The system is not available at Fox Chase's main campus — just the Buckingham facility.

"With these treatments, we are giving the same total dose as we give in eight weeks, but we're giving it in five or 12 treatments by giving a higher dose per day," Hayes explains. "So the concern is increased risk for long-term adverse effects. We don't want patients to come back three years from now with rectal bleeding or other complications."

Falkenstein has responded well to treatment: his prostate-specific antigen (PSA) level dropped from 8.7 at pretreatment to 0.6 three years later. He had no adverse effects during or since treatment. "Three years out, a PSA that's really low is good, but we want to keep following these patients because they can have late recurrences," Hayes says.

Hayes then discusses with Farley the next patient, Ronald Naar. Naar was diagnosed with prostate cancer in 2014; however, because his biopsy revealed such a small amount of cancer, he has been on active surveillance, or "watchful waiting." He and Hayes have been in touch over the phone since his diagnosis, and during their last call, Naar made an appointment to discuss his options. Hayes offers him the same treatment that Falkenstein underwent with five treatments of stereotactic radiation. However, Naar's PSA dropped after his initial diagnosis and has remained steady. He is feeling well and has had no symptoms referable to his cancer. Hayes explains that if the cancer was progressing, his PSA would most likely be rising. She tells him she is comfortable continuing with watchful waiting and even cutting back to checking his PSA every six months rather than three. "We're watching you so closely that if anything changes, we'll still have a lot of options open for treatment," Hayes reassures him.

AFTERNOON

After lunch, Hayes and Farley chat about the next patient, James McGinley, who is seeing Hayes for a routine follow-up appointment. Hayes treated him five years ago for prostate cancer. McGinley underwent a prostatectomy but afterward saw a spike in his PSA, which indicated that not all of the cancer had been removed. Because he had a high-risk form of prostate cancer, he was enrolled into a protocol treatment that involved radiation of his prostate bed and pelvic lymph nodes, as well as chemotherapy and hormone therapy. "This was a very aggressive treatment," Hayes explains. "We don't typically give chemotherapy in this setting. Usually patients with prostate can-

> cer who get chemotherapy have had metastatic disease for years. He's done amazingly well."

Hayes heads to the exam room to see McGinley and his wife. She takes a seat on the exam table and tells him, "Your PSA has remained undetectable and your testosterone has normalized, so I can officially say that you're cured."

She will continue to see McGinley once a year, as recurrence is unlikely after five years but is still possible. Hayes does a quick exam on McGinley, and because he also has a history of melanoma, she checks the scar on his back and looks for any enlarged lymph nodes, primarily in the underarm area. She discusses his upcoming 80th birthday — a significant milestone for someone who recently survived two types

JARED CASTALDI

<image>



of cancer. "That's the key — the physiological age and not the chronological age," Hayes says. "That's much more telling: what shape you're in rather than the number. That's why you did so well."

"I had great doctors all along the way, including you," McGinley tells her.

Hayes treated the next patient, Diane Whitman, with Cyberknife® radiation a few months ago for recurrence after initial surgical resection of her brain tumor and radiation. Whitman's two-month MRI scans do not show any signs of recurrence. Hayes sits on the exam table to talk with Whitman, who is accompanied by her home health aide.

She asks Whitman about her other treatments, including temodar, a chemotherapy pill. Hayes also asks about any neurological symptoms and performs an exam on Whitman to check for symptoms. She notices some drooping on the right side of Whitman's face, but because nothing showed up on the MRI, Hayes suggests just keeping an eye on it. She tells Whitman to discuss future treatment with her medical oncologist. "You had a lot of radiation to that one area, and I don't see anything new in the rest of your brain," Hayes explains. "No further radiation is necessary."

Hayes takes a break and calls into a videoconference at the main Fox Chase campus to watch a talk from a visiting professor from Memorial Sloan-Kettering. "Since I work at Buckingham, it's great to meet up with my colleagues every so often," she says. She and those colleagues are planning to take the professor to dinner in Philadelphia that evening.

Hayes then sees her final patient of the day, Anna Pauch, who is three years out from radiation treatment for breast cancer. Pauch underwent a lumpectomy and radiation and was prescribed hormone therapy, which she will take for five years.

She sees Hayes every six months. She is doing well but is experiencing some tenderness in the treatment area, which is not uncommon. There is nothing concerning on her mammogram, so Hayes suggests that Pauch return once a year rather than twice.

The Fox Chase Buckingham facility recently began offering surgical oncology consultations and genetic counseling. "We're starting to expand our services up here," Hayes says, adding that chemotherapy is also being considered for the center.

"My job is very gratifying. Mr. Falkenstein and Mr. McGinley have done really well and are essentially cured at this point. They are very grateful for the care we provided," Hayes adds. "When people don't do well, it's certainly challenging, but that's not everybody — we do cure people. You always hear the worst stories; you don't hear the good ones all the time. Luckily, I see a lot of good ones."

HOPE AMID CHAOS

BY LISA BROIDA BAILEY

une 7, 2011: the day that Ed Babiarz received a call from his doctor with unsettling news. Babiarz had recently undergone a CAT scan to diagnose an unexplained numbness in his leg. To everyone's surprise, the scan revealed a tumor on his left kidney.

Fifteen years earlier, Babiarz had launched his second career as an artist, winning countless awards for his talents. He had grown comfortable resting his fate in the hands of judges and discerning patrons. But on this day, he was freefalling.

"The word 'cancer' brought with

it feelings of disbelief, despair, and a total loss of control," recalls Babiarz, who was looking forward to celebrating his 50th birthday that October. "That was followed by fear, anger, and resentment. Eventually, hope became part of the vocabulary in my cancer journey."

From the start, Babiarz was proactive in his approach to managing the disease. After consulting with a urologist who recommended surgery at his local hospital, he decided to get a second opinion. "My partner, Tim [Greusel], immediately began to research the best facilities for treatment and found Dr. Uzzo at Fox Chase Cancer Center," says Babiarz. "Dr. Uzzo's outstanding professional abilities and personal treatment philosophy seemed to be the best match for me."

Robert G. Uzzo, chief of surgical oncology at Fox Chase, is world-renowned for treating patients with kidney cancer, often with minimally invasive techniques. Uzzo feels strongly about organ preservation to retain function and quality of life. The initial visit with Uzzo revealed that the best approach for Babiarz's tumor was to perform a partial nephrectomy to remove just the cancerous portion of the kidney using da Vinci®





"I would not have been able to realize my wedding if it were not for Dr. Uzzo's expertise and the fantastic care from the team of professionals at Fox Chase."

- ED BABIARZ, CANCER SURVIVOR

robotic-assisted surgery. Two weeks later, Uzzo performed the delicate but successful surgery. After a two-day stay in the hospital, Babiarz went home to recover.

With the support of Greusel and his friends, Babiarz had a full recovery and came to terms with his diagnosis. His initial six-month follow-up with Uzzo showed no evidence of disease.

On February 15, 2015, Babiarz and Greusel were married 31 years to the day of their meeting. "I would not have been able to realize my wedding if it were not for Dr. Uzzo's expertise and the fantastic care from the team of professionals at Fox Chase," shares Babiarz.

Babiarz is a member of The Guild of Papermakers. His work has been exhibited in national and international venues. He describes art as "a voice that comes from the power that possibly moves people to think, act, or react to it. I create to explore the release of thought and emotion. The simplicity and movement of paper draws me to this medium." He and Greusel have graciously donated two pieces to Fox Chase that are currently on display in the Robert C. Young, MD Pavilion. "After my surgery and the healing that followed, I began to think about what I wanted to do to show my deep appreciation for the treatment, care, and compassion that I received," shares Babiarz. "I contacted Fox Chase about donating some of my artwork so that it might bring a sense of peace and inspiration to those who saw it."

Babiarz adds, "Dr. Uzzo and all the terrific people who work at Fox Chase — from the greeter at the information desk, to the nurses, to the anesthesiologist — treat their patients with utmost kindness and compassion. If there is a place to help a person with cancer deal with their unique circumstances, Fox Chase is it."

IT TAKES A VILLAGE

Lisa's Army and Jimbo's Squad Comfort Patients Through Generous Gifts.

eople surrounded Lisa Loonstyn-Golden wherever she went. In 2010, the vibrant 22-year-old came to Fox Chase Cancer Center for treatment after being diagnosed with stage 1A ovarian cancer in 2008. Lisa's mother, Marie Loonstyn, said Lisa often brought a small army of family and friends to her treatments.



"Lisa had such a big following whenever she walked into Fox Chase. It was like 'Cheers,' where everybody knew her name," Loonstyn jokes. "Everyone was incredibly kind and patient."

Loonstyn kept a bag full of amenities that she brought to Lisa's treatments, including hand sanitizer, a blanket, lotion, socks with grips on the bottom, and an iPad to Skype with Lisa's young son, Michael, who would stay home during her hospital visits.

When Lisa lost her battle in May 2012, her family and friends decided to extend support to other

"It's such a privilege to help comfort cancer patients, especially those who need it most."

BRIAN MCSHANE, JIMBO'S SQUAD FOUNDER

cancer patients by providing comfort care packages filled with the same items Lisa would take with her. The packages of items, valued at about \$600, also included cards with words of inspiration.

Lisa's family and friends started a non-profit organization called Lisa's Army in September 2013 to help other men and women undergoing every type of cancer treatment. Today, Lisa's Army has provided more than 400 comfort packages to patients being treated at Fox Chase, as well as other



hospitals in the Philadelphia region and across the country. "When we give a bag to a patient, it's like we are giving them a part of Lisa," Loonstyn says.

Lisa's Army funds the care packages through fundraisers like the Lisa's Army Annual Ball, and Pumpkins in the Park, the non-profit's annual 5K run/walk.

Though they never met, Lisa had a lot in common with another Fox Chase cancer patient, Jim McDonald, affectionately nicknamed "Jimbo." And, much like Lisa's family, Jim's loved ones started a non-profit in his name: Jimbo's Squad.

The non-profit was started in 2008 by Jim's daughter Jaclyn McShane and her husband Brian, following Jim's death to esophageal cancer at 59. "Jim loved life," Brian says. "He was a kid at heart who found joy in things that most of us take for granted." Jim also enjoyed running. One of his proudest moments was when he participated in Philadelphia's Broad Street Run, the largest 10-mile road race in the United States, in the early 1980s. To honor Jim's memory, Jaclyn and Brian made it their mission to raise money for cancer patients at parties before and after the Broad Street Run each year.

Their logo — a bulldog in homage to Jim's service as a Marine during the Vietnam War — is emblazoned on the comfortable clothing, blankets, and post-surgical pillows they provide to patients at Fox Chase. The Squad also offers all-expenses paid vacations to the Jersey Shore for patients and caregivers. They also hand out presents during the holiday season — a mission dubbed Operation Jimbo Claus.



Top: Medical oncologist Angela Jain (left) and Marie Loonstyn. Bottom: Lisa Loonstyn-Golden's son, Michael

The non-profit's efforts have been so successful that they were welcomed as a member of Fox Chase Cancer Center's Board of Associates in 2010. The group has raised more than \$100,000 to date. "It's such a privilege to help comfort cancer patients, especially those who need it most," Brian says. "We're so lucky to be able to honor Jim in this way."

TOGETHER FACING LUNG CANCER

bout 200 guests gathered in the Fox Chase Cancer Center cafeteria for the 3rd Annual "Together Facing Lung Cancer" event on November 19, 2015.

The free event featured live music, dinner, prizes, and a health fair, following presentations by Fox Chase nurses and doctors about the latest developments in lung cancer treatment. The

"I am honored to be a part of this event that highlights lung cancer survivors and their friends and family."

- DENISE NAKANO, PHILADELPHIA NBC10 ANCHOR & REPORTER

host of the event, Philadelphia's NBC10 weekend anchor and reporter Denise Nakano, welcomed guests by sharing a touching tribute to her mother, who died of lung cancer.

"I am honored to be a part of this event that highlights lung cancer survivors and their friends and family," says Nakano.

Hossein Borghaei, chief of thoracic oncology, welcomed guests and acknowledged the program co-chairs, Fox Chase social worker Lisa Etkins and nurse navigator Caryn Vadseth. Donna Edmondson,



a nurse practitioner in thoracic surgery, spoke about the importance of lung cancer screening.

Walter Scott, chief of thoracic surgery, discussed the benefits of minimally invasive surgical techniques and demonstrated the da Vinci Surgical System® from the OR. Scott and Ranee Mehra, chief of head and neck hematology/oncology, also gave a short talk on immunotherapy and molecular targeted therapy. One of the most emotional moments of the night was when Fox Chase patient and honored guest Susan Galeone, who is being treated by Borghaei, shared her journey with stage IV lung cancer, followed by a photo montage played over live acoustic guitar to honor the memory of deceased lung cancer patients and to pay tribute to caregivers and patients currently confronting the disease.

PHYSICIANS RATED "TOP DOCTORS"

Forty-four Temple University Health System physicians, including 26 at Fox Chase Cancer Center, have recently been named America's Top Doctors® for 2016 by Castle Connolly Medical Ltd., a healthcare research and information company. "The Temple Health family is incredibly proud of our dedicated faculty who were recognized for consistently delivering excellent clinical care to our patients and for pushing the industry forward as leaders in their fields," says Larry R. Kaiser, president and CEO of Temple University Health System. "We know our physicians are among the best in the country, and we're delighted our peers agree."

FISHER "MOST ADMIRED CEO"

ox Chase Cancer Center president and CEO Richard I. Fisher was selected by *Philadelphia Business Journal* as one of 2015's Most Admired CEOs.

The distinction honors exceptional leaders for their achievements in making their companies, as well as the Greater Philadelphia region, a success. Winners came from both private and non-profit sectors, as well as large and small businesses.

Fisher's nomination cited highlights from throughout his distinguished career as a clinician, researcher, and educator, particularly noting his performance as a cancer center director who has spurred remarkable progress at Fox Chase since taking the helm as president and CEO in 2013.

Fisher was among 30 people who received the Most Admired CEOs honor at a special awards program and dinner held on December 3 at Hyatt at the Bellevue in Philadelphia.

A full listing of 2015's honorees is available on the website of the Philadelphia Business Journal.





2016 CANCER WALKS/RUNS

Every year, various cancer advocacy organizations host walks and runs throughout the Philadelphia region to raise awareness and funds for cancer research. Many employees from Fox Chase Cancer Center help to lead and take part in these community events. Below are some upcoming walks/runs in the area. Visit foxchase.org/events to join our teams.

Sandy Rollman: Sandy Sprint Superhero 5K or 10K Run/Walk, Canine Sprint Saturday, April 23

Miles for Myeloma 5K Saturday, April 23

For Pete's Sake 3-Mile Walk Sunday, April 24

Broad Street Run Sunday, May 1

Susan G. Komen Philadelphia Race for the Cure Sunday, May 8

Move to End Bladder Cancer Saturday, May 14

Living Beyond Breast Cancer – Reach and Raise Sunday, May 15

Cancer to 5K Saturday, June 11

Steps to Cure Sarcoma Run & Walk Sunday, June 12

Gary Papa Run Sunday, June 19

5K Run/Walk to Break the Silence on Ovarian Cancer Saturday, September 10 Undy Run/Walk Saturday, September 10

Your Next Step is the Cure Sunday, October 2

Race for Hope Philadelphia Sunday, October 2

Miles for Melanoma 5K Run/Walk Saturday, October 8

Pumpkins in the Park 5K & Fun Walk Saturday, October 8

Paws for the Cause Dog Walk Sunday, October 9

Making Strides Against Breast Cancer Saturday, October 15

Light the Night Walk Saturday, October 22

Purple Stride 5K Run and Family-Friendly Walk Saturday, November 5

Philadelphia Free to Breathe 5K Run/Walk and 1-Mile Walk Sunday, November 6

KOMEN PHILADELPHIA EVENT

fter a decade of providing breast cancer education through breakthrough language- and culture-specific events, Susan G. Komen Philadelphia recently revolutionized breast health empowerment with an original program, Strength & Survival: The Universal Language on Saturday, February 13 at the Kimmel Center for the Performing Arts.

Richard J. Bleicher, surgical oncologist and leader of the Breast Service Line at Fox Chase Cancer

"My colleagues and I enjoyed celebrating, empowering, and educating the women in attendance."

-RICHARD J. BLEICHER, SURGICAL ONCOLOGIST

Center, served as a medical co-director of the event, along with Curtis Miyamoto, radiation oncologist at Fox Chase Cancer Center at Temple University Hospital and chair of the department of radiation oncology at the Lewis Katz School of Medicine at Temple University. "I was thrilled to be asked by Komen Philadelphia to



serve as a medical co-director of the Strength & Survival event," Bleicher says. "My colleagues and I enjoyed celebrating, empowering, and educating the women in attendance."

The event put 25 breast cancer healthcare professionals and 25 breast cancer survivors on stage with the Philly POPS and other entertainers to create a single spectacular "performance" developed to empower 2,300 women from across Komen Philadelphia's 15-county service area.



Top: Elaine Grobman, Komen Philadelphia President; Bleicher; and Judith Salerno, Komen National President. Bottom: Miyamoto and Bleicher



FISHER VISITS MARCO ISLAND

On March 7, Bob and Jeanne Brennan, generous supporters of Fox Chase Cancer Center, hosted president and CEO Richard Fisher at their Marco Island, Florida home.

Donors, patients, and friends of Fox Chase, including Debra Sniger, President of the Board of Associates, and her husband Leo were in attendance to hear Fisher provide an update on the Center's achievements over the past three years. Also present at the event was Elias Obeid, a Fox Chase medical oncologist and researcher specializing in breast cancer treatment and prostate cancer risk assessment. Throughout the event, attendees were able to engage in thoughtful dialogue with Fisher and Obeid.

UNIVERSAL HOSPITAL AGREEMENT

ox Chase Network, Inc. has signed an agreement with Universal Hospital, Abu Dhabi, to design program services as Universal Hospital looks to establish a Center for Blood Disorders and Bone Marrow Transplant Program in the United Arab Emirates. Universal Hospital is a private multi-specialty healthcare facility established in Abu Dhabi in 2013.

As a follow-up to their Memorandum of Understanding signed last November, several representatives from Fox Chase Cancer Center and Temple University Health System visited the Abu Dhabi facility in early 2016.

"Fox Chase Cancer Center is a world-class institution for cancer care, and we are excited to be leading the effort to bring that level of care to other areas of the world," says Richard I. Fisher, president and CEO of Fox Chase.

The new program will aim to provide medical services locally and regionally. Universal Hospital also hopes to establish exchange programs and customized physician programs at Fox Chase's affiliated hospitals in the United States.

"Advanced cancer treatment needs to be available for everyone in the United Arab Emirates. We hope to fill this gap by establishing a dedicated bone marrow transplant center in Abu Dhabi with Fox Chase that will eventually expand into a full cancer center," says Shabeer Nellikode, a neurologist and managing director of Universal Hospital.

PBCC

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COURTESY

PHOTO

BOTTOM:

HONORS & AWARDS



Nestor F. Esnaola, attending surgeon, has been selected as a member of the American College of Surgeons' Commission on Cancer (CoC). Esnaola joins a group of 102 individuals who either represent the American College of Surgeons, or 56 national professional organizations or member organizations affiliated with the CoC. The CoC is dedicated to improving cancer

care through standard-setting, prevention, research, education, and the monitoring of comprehensive quality of care nationwide.



John A. "Drew" Ridge, chief of head and neck surgery, has been elected President of the Medical Staff. In his new role, Ridge will work with Fox Chase president and CEO Richard I. Fisher and hospital administration to improve physician credentialing and privileging processes, and select physician representatives to committees that oversee patient safety and quality control.



Eric M. Horwitz, chair of radiation oncology, has been appointed to the Pennsylvania Task Force on Prostate Cancer and Related Chronic Prostate Conditions (PCTF) by Pennsylvania Secretary of Health Karen Murphy. Horwitz joins other radiation oncologists, registered nurses, physicians, state health officials, and prostate cancer patients tasked with investigating,

raising awareness, and making recommendations concerning prostate cancer and related conditions.

Jeffrey R. Peterson, associate professor of cancer biology, and his colleagues were recently awarded a \$50,000 research grant from the Pennsylvania Breast Cancer Coalition. The proposal suggests a novel, targeted approach to treating patients with triple-negative breast cancer through metabolic reprogramming. It was selected as one of only four proposals to earn funding by the PBCC for 2016.



RAP TURNS 25

Fox Chase's Risk Assessment Program Helps People Understand Genetic Risks for Cancer.

BY EMILY SHAFER

n 1991, Fox Chase Cancer Center's Risk Assessment Program (RAP), then called the Margaret Dyson Family Risk Assessment Program, sought to educate women - considered high-risk because of their family history - about cancer screening and prevention for breast and/or ovarian cancer. The program also included sisters and daughters of women with these types of cancer. Now, there are almost 15,000 participants in the program, which has expanded to serve those at high risk for a variety of other cancers, including gastrointestinal, prostate, kidney, and lung cancers.

Mary Daly, chair of Clinical Genetics at Fox Chase, founded RAP and still serves as its director. The program started before the field of genetics was widely researched. However, the discovery of the *BRCA1* and *BRCA2* mutations, now well known as a major factor in hereditary breast and ovarian cancers, was a game changer.

The mission of the program is simple: help those at high risk for cancer learn about risk factors and preventive measures by way of education, individualized counseling, genetic testing, and screening. Often, patients visit the program because they have a family history of cancer, or they have been diagnosed with cancer at a young age. The services that RAP provides vary by cancer. First, counselors provide patients with a concrete idea of their risk, then advise the patients on screening recommendations and possible medical or prophylactic surgical measures.

In 2009, Laura Simonetti came to Fox Chase after her father was diagnosed with colon cancer for the third time. Her father tested positive for Lynch Syndrome, which is an inherited predisposi she survived a predisposition to cancer but has luckily not had the disease.

"I want other gene carriers to know that it's not a death sentence. RAP really encourages people to understand their family health history, to be proactive about screening, and to make healthy lifestyle choices," she says.

Daly recalls that at the program's inception, she never could have imagined how much of what

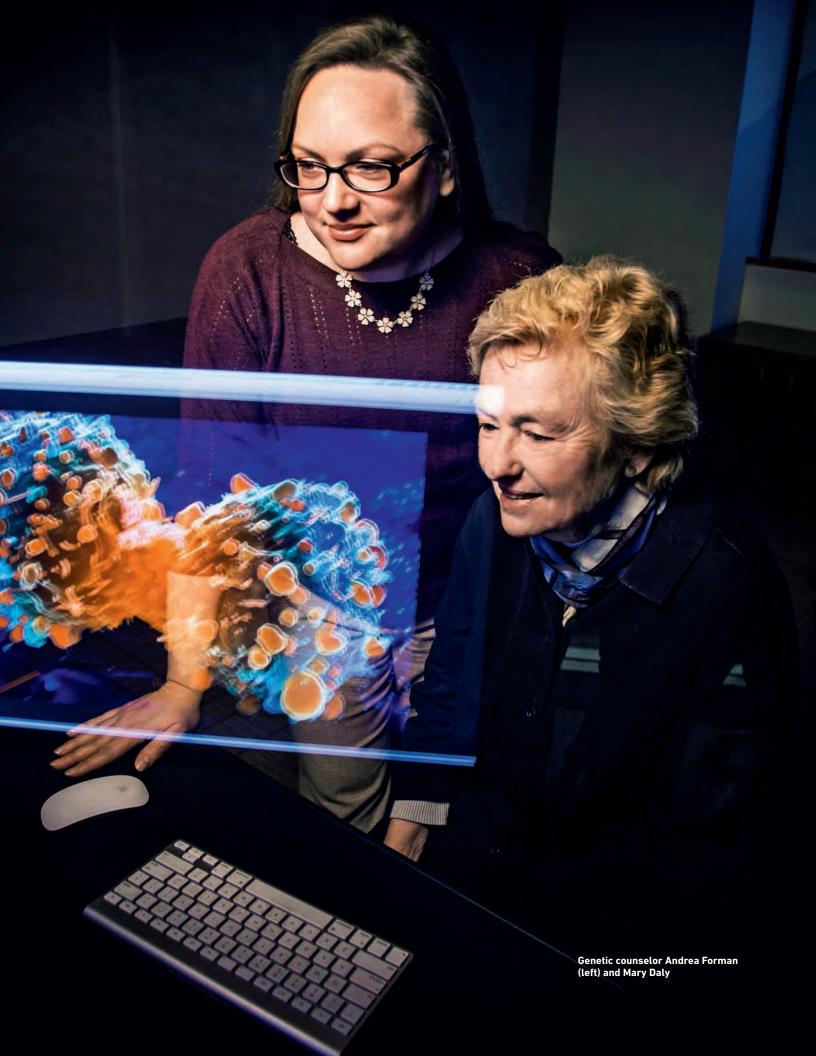
"What surprises me the most is how quickly we went from discovering *BRCA1* and *BRCA2* in 1994, and now in 2016, we are able to test for more than 55 genes associated with cancer."

- MARY DALY, CHAIR, CLINICAL GENETICS, AND RAP FOUNDER

tion for colorectal and other types of cancer. Simonetti also learned she tested positive.

Now, her preventive measures include an annual colonoscopy, upper GI endoscopy, cancer antigen-125 blood test, ultrasound of the kidneys and renal system, urine cytology test, full-panel blood test, and a mammogram. In 2015, Simonetti underwent a complete hysterectomy, which has greatly reduced her risk of endometrial cancers. Therefore, she is considered a "previvor" clinicians and researchers now know about cancer is based on a genetic understanding of the disease. "What surprises me the most is how quickly we went from discovering *BRCA1* and *BRCA2* in 1994, and now in 2016, we are able to test for more than 55 genes associated with cancer."

To mark RAP's silver anniversary, a celebration with current and former faculty, staff, and patients will be held on Thursday, April 14 at the Knowlton Mansion, located in Northeast Philadelphia.





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Surgery could have taken my voice away.

Fox Chase had a different approach.

Mark Wilson, 52 Diagnosed with Stage IV Tonsil Cancer

When Mark Wilson was diagnosed with tonsil cancer, another hospital recommended a radical surgery that could have left him without his voice. Then he talked with the team at Fox Chase Cancer Center. They were able to offer Mark a non-surgical option through a clinical study, and today he's cancer-free. Fox Chase is ranked among the top 25 cancer centers by *U.S. News & World Report*, has some of the nation's top doctors, and is actively involved in innovative research. And that made all the difference for Mark.

NEXT BUSINESS DAY APPOINTMENTS

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TEMPLE HEALTH

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