

FOX CHASE Forward

BROADENING THE CONVERSATION ABOUT CANCER | WINTER/SPRING 2021

Cutting- Edge Care for Blood Cancers

Bone Marrow Transplant,
Cellular Therapies
Offer Many Options



THE IMPORTANCE OF PERSISTENCE

No matter the problems of the world or the personal challenges in our lives, cancer persists. Its impact is still felt, and the urgency that accompanies it cannot be ignored. Cancer is persistent.

As we regularly adapt to caring for our patients amidst a global pandemic, our Fox Chase Cancer Center community continues the important work of advancing cancer care. In our mission to prevail over cancer, we are persistent too.

In this issue of *Forward*, our cover story highlights advances in treatment for patients with blood cancers. Clinicians in our Department of Bone Marrow Transplant and Cellular Therapies are inspiring hope through leadership in developing novel therapies with encouraging results. Among them is the first and only CAR T-cell therapy approved by the Food and Drug Administration to treat patients with mantle cell lymphoma. A type of immunotherapy, CAR T-cell therapy uses

specially altered T cells—a part of the immune system—to fight cancer.

We also explore the field of geriatric oncology. With other diagnoses like heart disease and diabetes in our older population, as well as cognitive ability and social environment factoring into care, a holistic approach is most appropriate. It is critical to understand and care for each patient as an individual, addressing their unique needs. As much as we advise our patients, they have much to teach us. It starts with listening.

Caring for the whole person in our patient-care approach also applies to areas such as nutrition and physical activity. This concept is especially important for patients who suffer from cachexia, a lack of appetite and loss of body fat and muscle due to disease or malnourishment. This syndrome affects about half of cancer patients, and its effects can be devastating. Fox Chase researchers and dietitians are studying ways



to improve clinical outcomes and quality of life for these patients.

With so much happening around us, especially now in 2021, we are more challenged than ever. We are also more determined, and so, we carry on. Cancer will not stop. Neither will we.

Richard I. Fisher, MD
PRESIDENT AND CEO

FOX CHASE *Forward*

WINTER/SPRING 2021

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There is nothing standard about caring for elderly patients with cancer. Currently, individuals age 85 and older are the fastest growing cancer population in the United States. With this rapidly growing population, effective and individualized care—and the art of listening—have become more important than ever.

16 Coping With Cancer Weight Loss

Perhaps one of the most challenging thing about cancer and its treatment is cachexia (pronounced “kuh-KEK-see-uh”), a wasting syndrome in which patients experience loss of body fat and muscle. Researchers are exploring the relationships between specific cancers, nutrition, and physical activity with the goal of improving clinical outcomes.

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Doug Payne has been in the music business since he was a child, so music is his life. But after being diagnosed with a rare type of sarcoma, he had to put the music on hold. After surgery and radiation therapy, Payne is back in the studio.



22 CLOSE-UP: Faculty Perspective: A Scientist With Passion

Tomasz Skorski’s dedication to science and medicine has been a lifelong passion. An associate professor at Fox Chase, Skorski focuses on determining the role of DNA repair mechanisms in leukemia.

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Roberta R. Scheller and her husband Ernest were so impressed with the treatment she received for her kidney cancer at Fox Chase that they established the Roberta R. Scheller Chair in Urologic Oncology.

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Robert “Bob” Perry, who has been called “a scientist’s scientist,” was a pioneer who spent most of his career at Fox Chase. His lab was one of few in the 1960s trying to understand how DNA was copied to RNA.

RESEARCHER RECEIVES 2020 NIH DIRECTOR'S NEW INNOVATOR AWARD

Joan Font-Burgada of the Cancer Biology Research Program has received a National Institutes of Health (NIH) Director's New Innovator Award from the NIH Common Fund's High-Risk, High-Reward Research Program.

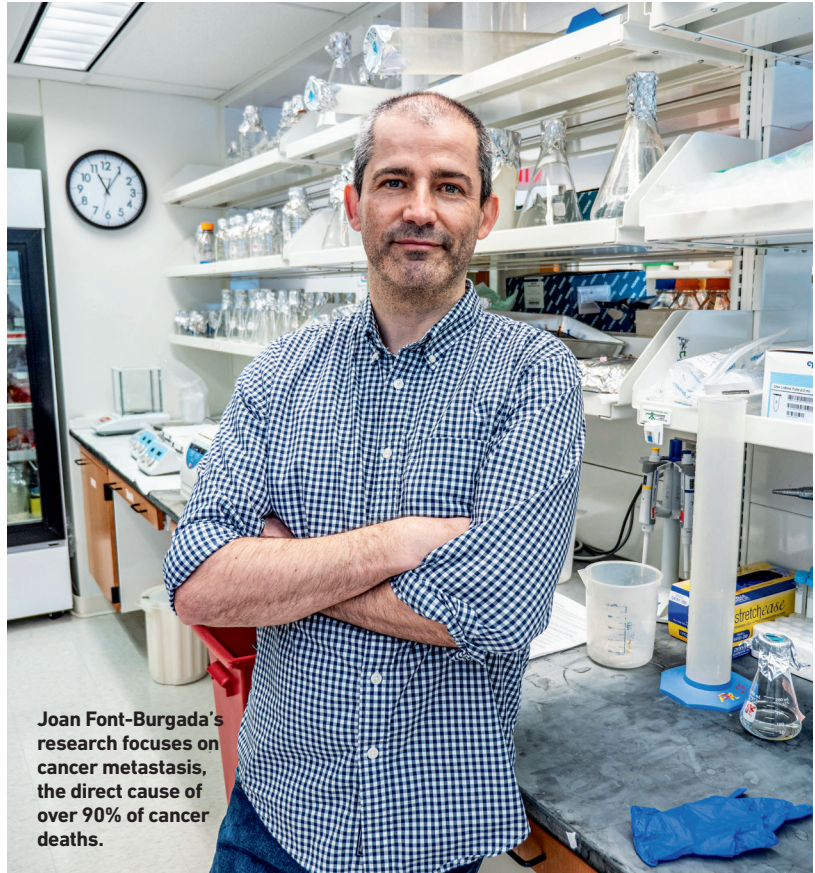
NIH Director's Awards are prestigious honors given to exceptionally creative scientists proposing unconventional approaches to major challenges in biomedical and behavioral research. The New Innovator Award specifically supports unusually innovative research from early career investigators.

“This initiative encourages us to be imaginative and bold in tackling unsolved biomedical issues.”

— JOAN FONT-BURGADA,
CANCER BIOLOGY RESEARCH
PROGRAM

“Innovation is inherent in the kind of science that Fox Chase has long nurtured—work that has led to important discoveries in how we understand and treat cancer. Dr. Font-Burgada's work honors this legacy by pursuing novel approaches to addressing metastatic disease, something that holds great potential for many patients with various types of cancer,” said Richard I. Fisher, president and CEO of Fox Chase.

Font-Burgada's research focuses on cancer metastasis, which is the



direct cause of over 90% of cancer deaths. Historically, research has focused on determining specific properties of the metastatic cells that could be used to develop therapies. This approach has become unattainable because of the high genetic diversity of metastatic cells, resulting in multiple “unique” tumors in a single patient.

Font-Burgada proposes switching the spotlight from metastatic cells to the so-called metastasis-interacting resident cells. If successful, this approach could result in effective treatments for many patients regardless of cancer type, with the additional benefit of

reduced resistance, since the cells being targeted are not cancer cells and are therefore devoid of escape strategies. Font-Burgada defines this as an extensive medicine approach as opposed to mainstream precision medicine.

“I am really grateful to the NIH for promoting the High-Risk, High-Reward Research program and supporting early stage investigators like myself. This initiative encourages us to be imaginative and bold in tackling unsolved biomedical issues. It is truly an honor to receive this award and join the ranks of such an exceptional list of past awardees,” said Font-Burgada.

FOX CHASE RECEIVES LARGE GRANT FOR HEAD AND NECK CANCER RESEARCH COLLABORATION

Fox Chase Cancer Center has been awarded a grant through the National Institute of Dental and Craniofacial Research to fund a Specialized Program of Research Excellence (SPORE) for Head and Neck Cancer.

Head and neck cancers are a group of cancers that start in the lining of the oral cavity, throat, voice box, or vocal cords. These cancers account for approximately 4% of all cancers in the United States and can be complex to treat, according to the National Cancer

Institute. In 2021, over 65,000 people are estimated to be newly diagnosed with head and neck cancer, and over 14,000 will die from this disease.

The five-year, \$11.7 million grant funds a SPORE collaboration among Fox Chase, Yale Cancer Center, and the Lineberger Cancer Center of the University of North Carolina to address obstacles in treating head and neck cancer.

“It’s an exciting opportunity to focus sustained effort on improving treatment for this devastating disease,” said Erica Golemis, deputy

chief science officer and co-leader of the Molecular Therapeutics Program at Fox Chase. Her project as part of the SPORE will be performed in collaboration with Barbara Burtness, professor of medicine (medical oncology) at Yale Cancer Center, who was previously a researcher at Fox Chase.

“It’s an exciting opportunity to focus sustained effort on improving treatment for this devastating disease.”

— ERICA GOLEMIS,
DEPUTY CHIEF SCIENCE OFFICER

“This project aims to develop therapy for patients that have resistance to normal forms of treatment for advanced head and neck cancer by targeting combinations of proteins that control cell division and DNA damage. The work is designed to directly connect insights generated in the labs to clinical trials taking place at Yale, Fox Chase, and Lineberger,” Golemis added.

Other Fox Chase members of the SPORE team include John A. “Drew” Ridge, chief of head and neck surgery; Camille Ragin, a professor in the Cancer Prevention and Control Program; and leaders of the Fox Chase core facilities. Pilot studies that helped Fox Chase successfully compete for SPORE designation were strongly supported by J. Robert Beck, the H.O. West and J.R. Wilke Chair in Cancer Research.



ADRIÀ FRUITÓS

ROLE OF LIPIDS IN CONTROLLING PANCREATIC CANCER AGGRESSIVENESS HIGHLIGHTED

Altering lipid metabolism may contribute to sustaining tumor growth in patients with pancreatic ductal adenocarcinoma, a finding that could help overcome a major problem in pancreatic cancer treatment resistance and metastatic spread.

“The initial assumption was that if we block biosynthesis of cholesterol in cancer cells, that should prevent cancer development,” said Igor Astsaturov of the Department of Hematology/Oncology, the lead author of the study, which was a complex, multifaceted investigation involving a number of Fox Chase Cancer Center researchers.

But they were not able to prove the hypothesis, he said. Instead, the researchers found something entirely unexpected. Typically, epithelial tumors, such as pancreatic, grow in clusters that mimic normal glands. When cancers become aggressive, they begin to grow in sheets resembling fibroblasts. This effect is known as epithelial-mesenchymal transition (EMT), which is the hallmark feature of a subtype of pancreatic cancer known as basal.

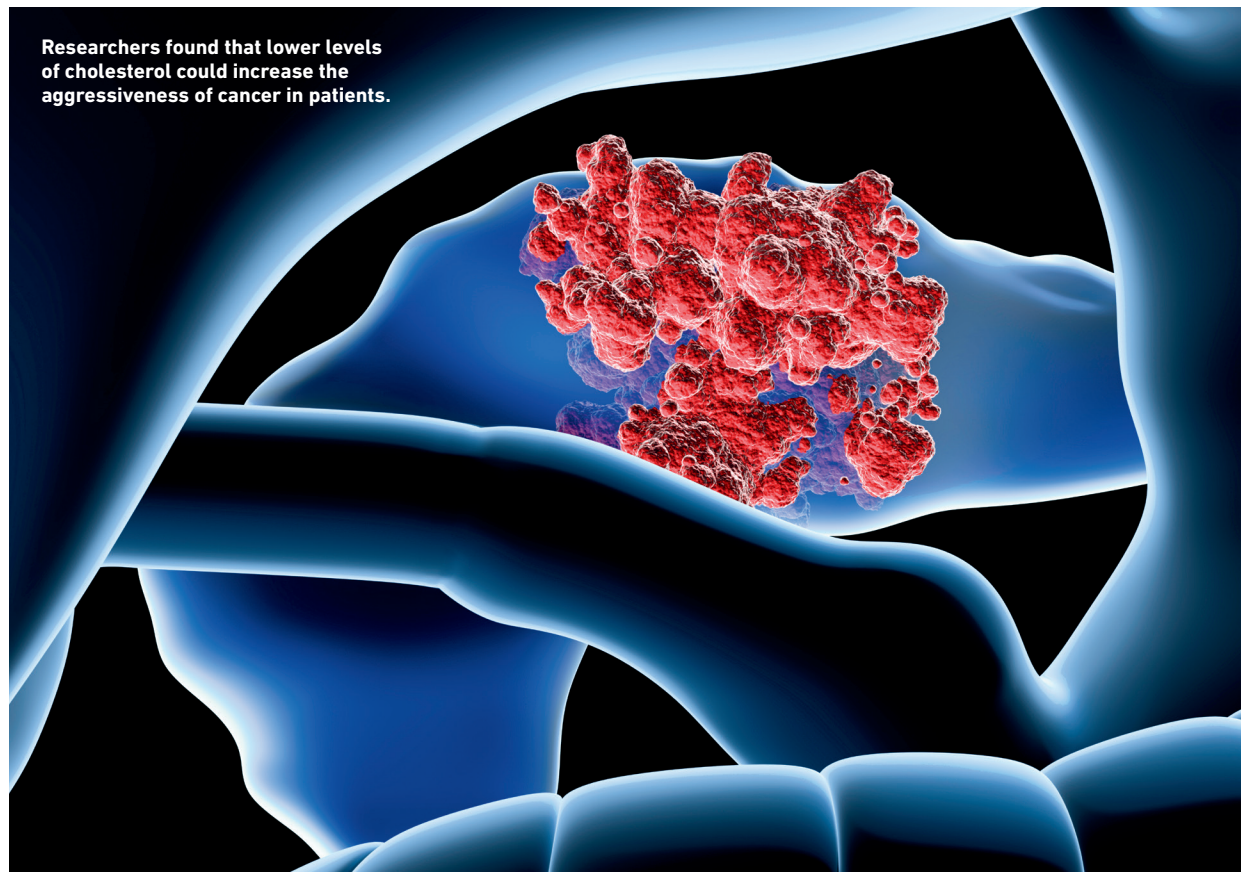
Using mouse genetic models of pancreatic cancer, the researchers found that when cholesterol biosynthesis was blocked, the cancer switched its growth pattern and acquired the molecular features

that changed it from glandular to basal subtype.

“Working collaboratively, we found, quite disturbingly, that patients who take statins and have a lower level of blood cholesterol have a higher prevalence of the EMT cells in their tumors,” Astsaturov said.

He added that researchers are now beginning to look at a larger collection of human samples to determine how blood lipids correlate with a patient’s nutrition, medicines they are taking, and the percentage of EMT cells in their tumors.

The study was published in the prestigious journal *Cancer Cell*.



RESEARCHERS DETERMINE CRITICAL ROLES OF BRCA1 GENE IN DNA REPAIR

Researchers at Fox Chase Cancer Center have determined that the BRCA1 gene has two distinct and equally important functions in the process of DNA repair, a finding which sheds light on the response and resistance of cancers to certain chemotherapies.

The scientists used mice with a mutation in a part of the protein known as the coiled-coil domain. Mice containing this mutation had developmental disorders similar to Fanconi anemia in humans, a rare genetic disease that affects bone marrow function.

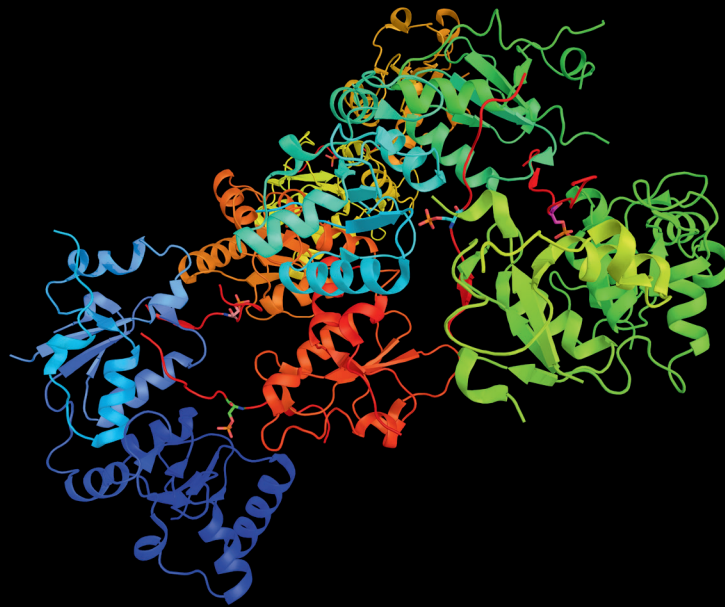
“Our work suggests different mutations may disable DNA repair by different mechanisms and could impact response and resistance to PARP inhibitors.”

— NEIL JOHNSON,
MOLECULAR THERAPEUTICS
PROGRAM

When coiled-coil mutation-containing mice were bred with mice with another distinct type of BRCA1 mutation, the offspring, which contained both mutations, were completely normal. It was a “surprising” finding, said Neil Johnson, of the Molecular Therapeutics Program.

The findings have implications for cancer therapy because drugs known as PARP inhibitors successfully treat BRCA1-mutant

New findings on the BRCA1 gene shed light on the response of cancers to certain chemotherapies.



breast and ovarian cancers, added Johnson, who conducted the study with researchers from Fox Chase and other centers.

“Our work suggests different mutations may disable DNA repair by different mechanisms and could impact response and resistance to PARP inhibitors,” said Johnson.

BRCA1 and BRCA2 are tumor suppressor genes that help repair DNA. Mutations in these genes are the strongest known genetic risk factors for breast and epithelial ovarian cancer. Previous studies suggested that BRCA1 is important for one function, but the new research suggests a more

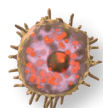
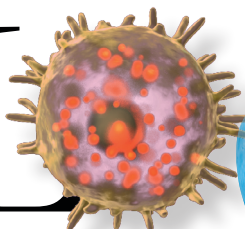
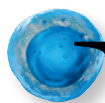
complicated picture.

“We were able to genetically separate the functions of BRCA1 in DNA repair. Through additional molecular biology work we determined that BRCA1 has two equal and distinct functions in the process of homologous recombination DNA repair,” said Johnson.

“When both of these activities are in place, homologous recombination can occur efficiently,” he added. Homologous recombination is an essential process for maintaining genetic information and ensuring it is transmitted accurately. The study was published in the journal *Molecular Cell*.

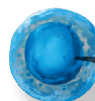


CUTTING-EDGE CARE FOR BLOOD CANCERS



Bone Marrow Transplant, Cellular Therapies Offer Many Options

BY MARIAN DENNIS



Every three minutes, someone in the United States is diagnosed with a blood cancer. These cancers, which include leukemia, lymphoma, multiple myeloma, and many others, account for nearly 10% of all cancer cases, according to the Leukemia Research Foundation. The Leukemia and Lymphoma Society estimates that 1.3 million Americans are living with, or are in remission from, leukemia, lymphoma, or myeloma.

Luckily for patients in the Philadelphia area, Fox Chase Cancer Center has one of the leading programs in the country for the treatment of these conditions.

“Every week our staff sits down together and offers the best to our patients, whether it’s chemotherapy, radiation, immunotherapy, stem cell transplant, bone marrow transplant, cellular therapy, or a combination of all of them,” said Henry Chi Hang Fung, MD, FACP, FRCPE, chair of the Department of Bone Marrow Transplant (BMT) and Cellular Therapies at Fox Chase. Fung has more than 30

years’ experience working with thousands of patients undergoing transplants. Among many other honors, he is consistently listed by Castle Connolly and *Philadelphia* magazine as a top doctor in hematology and cancer.

The department, which was recently formed from the Fox Chase-Temple University Hospital Bone Marrow Transplant Program, treats patients with different types of blood cancers. It also provides bone marrow and stem cell transplantation and cellular therapies to patients with blood disorders and other life-threatening diseases with the goal of improving their long-term outcomes.

Fung said he is privileged to run the department because it offers unparalleled opportunities to work with state-of-the-art, life-saving technology. In 2018, the department unveiled a new 11,500-square-foot outpatient clinic. Together with the inpatient BMT unit, the \$2 million facility occupies the entire fifth floor of the Patient Care Center at Jeanes Hospital, which is adjacent to Fox Chase Cancer Center and also part of the Temple system.



PHOTO ILLUSTRATION BY
JOSEPH LERTOLA AND BRYAN CHRISTIE DESIGN





A PROGRAM OF DISTINCTION

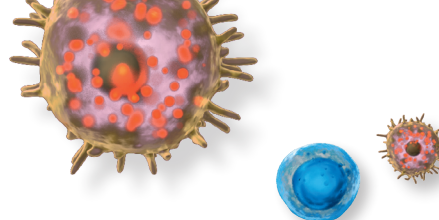
In addition to the updated facility, Fung said the department is also distinguished by a collaborative approach that benefits patients. Before becoming a department in late 2020, the program earned the Blue Distinction Transplant – Bone Marrow/Stem Cell from Blue Cross Blue Shield. The distinction takes into account the program’s overall quality measures, which are developed with input from the medical community. The department has also been honored as a Cigna Lifesource Transplant Network program of excellence, an Optum Transplant Center of Excellence, and an Aetna Institutes of Excellence Transplant Hospital.

In addition to these distinctions, the department has been honored two years in a row for providing exceptional care and strong clinical outcomes for patients who received bone marrow or stem cell transplants by the Center for International Blood and Marrow Transplant Research. Fox Chase is the only cancer center in Pennsylvania to exceed BMT outcome expectations for patients for both 2019 and 2020, and the only center in four surrounding states—New Jersey, Delaware, Maryland, and Virginia—and Washington, D.C.

“It is the commitment of our physicians, nurses, and



Top: BMT nurse conducts a blood pressure check. Bottom: Inpatient BMT staff gather for a quick floor update.



“My philosophy is that we should work together to make an informed decision about what is best for the patient. We can always do better.”

— HENRY CHI HANG FUNG,
CHAIR, DEPARTMENT OF BONE MARROW
TRANSPLANT AND CELLULAR THERAPIES

other clinical staff that brings us this success and recognition every year. It is a remarkable achievement, especially considering that our patients often have more advanced cases of blood cancer when they come to us than at many other programs in the country,” Fung said.

“This is very positive because our institution has recognized that this is one of the best clinical programs in the health system, and it has a very big potential to continue to grow and offer cutting-edge, novel treatments to our patients. These include different types of T cell and immunotherapies like CAR T, AlloCAR T, tumor-infiltrating lymphocytes, bi-specific antibodies, antibody drug conjugates, and others,” he added.

Recently, the BMT program was recognized by the Foundation for Reaccreditation of Cellular Therapy (FACT) at the University of Nebraska Medical Center. This is also the first time the program was accredited for immune effector cell therapy, making it the only adult center in Philadelphia that has this designation. FACT is an internationally-recognized accrediting body for hospitals and medical institutions offering stem cell transplant and cellular therapy; it indicates the accredited institution has met the most rigorous standards in every aspect of stem cell therapy.

In addition to taking on the role of department chair, Fung is also a member of the Blood Cell Development and Function Program and the translational research disease groups for leukemia and myelodysplastic syndromes and lymphoma and chronic lymphocytic leukemia. He is also a member of the National Comprehensive Cancer Network’s Multiple Myeloma/Systemic Light Chain Amyloidosis/Waldenstrom’s Macroglobulinemia Panel.

In addition to conducting its own research, the department participates in research with the ECOG-ACRIN Cancer Research Group and the Bone Marrow Clinical Trials Network. Its researchers work collaboratively to bring the most promising discoveries from the laboratory into the clinical setting, where they can directly impact patients.

Fung is a well-known leader in the field of blood diseases and is internationally recognized for his clinical and scientific



Henry Fung, chair of the Department of Bone Marrow Transplant and Cellular Therapies, oversees an award-winning program.

expertise in bone marrow and stem cell transplantation and cellular therapy. He came to Fox Chase from Rush University Medical Center in Chicago, where he was director of the Section of Bone Marrow Transplant and Cell Therapy and clinical leader of hematologic malignancies. He was also director of the Coleman Foundation Blood and Marrow Transplant Center, where he held the Coleman endowed chair.

A BENEFIT TO PATIENTS

One person who has benefitted from all this expertise and experience is Firas Saidi. In November 2019, Saidi, 49, of Huntingdon Valley, Pennsylvania, was diagnosed with multiple myeloma, a type of cancer that forms in the plasma cells and accumulates in the bone marrow, crowding out the healthy cells. Upon hearing his diagnosis, he was overcome with emotion.

“I had back pain that wasn’t going away for a couple of months before the diagnosis was official, but I had a feeling it might be multiple myeloma. That feeling got more intense as I saw the X-rays. Even though I was mentally ready, thinking something bad was about to be confirmed, it was just very different when I actually got the phone call to confirm my diagnosis,” said Saidi.

“I have a family, three kids, and my thinking was that I needed to start planning and that’s it. This is the end, and I need to plan for how my family will be taken care of,” he said.

The day after his diagnosis, Saidi met with Fung, who immediately started a treatment plan. Saidi said his worries gradually diminished the more he met with Fung and his team. They told Saidi that various treatments existed for multiple myeloma and that it was more of a chronic disease than the death sentence it was just a decade ago.

“Dr. Fung was very direct with me. He didn’t try to sugarcoat it. He very plainly told me, ‘This is what we’re going to try.’ I appreciated that,” said Saidi. “I also didn’t feel like I had to do anything really. I just had to show up and follow along with the appointments. Fox Chase has a great reputation, and I have all the trust in my treatment team.”

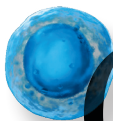
Saidi qualified for an autologous bone marrow transplant, one of several bone marrow and blood transplant procedures the department performs. It averages 100 to 150 such transplants each year. The department’s expertise in the procedure is one of the many assets that make Fox Chase an ideal place to be treated.

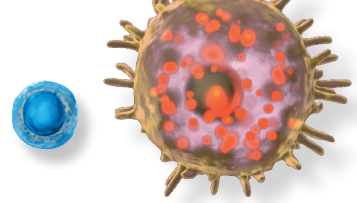
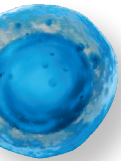
WHAT IS A BONE MARROW TRANSPLANT?

Bone marrow is the spongy tissue inside bones that contains stem cells. These cells can develop into red or white blood cells that carry blood through the body and help fight infections. When the marrow is affected by cancer or another blood disorder, the cells lose their ability to function properly.

A bone marrow transplant is similar to a blood transfusion. It involves infusing healthy stem cells into the body to replace damaged or diseased bone marrow. The first transplant in 1956 marked the beginning of standard life-saving care for patients with blood disorders. Bone marrow transplants have proven successful in treating certain types of cancer, including multiple myeloma, lymphomas, and leukemia, as well as other life-threatening blood disorders.

“For each of the diseases we offer transplants for, there are set circumstances where it’s an option,” said Michael Jay Styler, MD, a senior transplant specialist who works with Fung. “For example, with lymphoma, we only consider it if someone has relapsed or failed to go into remission with standard therapy. With myeloma the goal is different.





We offer transplant as part of the initial treatment with the goal of achieving a deep remission that predicts for prolonged survival and better quality of life.”

There are two different kinds of bone marrow/stem cell transplants: allogeneic and autologous. In an allogeneic transplant, healthy bone marrow/stem cells come from a matched or partially matched donor or umbilical cord blood. In autologous transplants, the bone marrow and stem cells are derived from the patient themselves. The bone marrow is harvested from the hip bone and stem cells are collected from peripheral blood through a procedure called apheresis.

The type of transplant and stem cell source a patient

receives is determined by factors such as age, diagnosis, stage of disease, and overall health. These transplants may be used with chemotherapy alone or in combination with different levels of total body irradiation.



THE FUTURE OF TREATMENT

Fung attributes much of the department’s excellence to the dynamic and nuanced care the center is able to provide, as well as its history of leading the way with emerging therapies. One such example is a new certification Fox Chase received to offer a therapy called brexucabtagene autoleucl.

The treatment, also known by the brand name Tecartus, is the first cell-based gene therapy approved by the Food and Drug Administration (FDA) for the treatment of patients with mantle cell lymphoma, a type of B-cell non-Hodgkin lymphoma that affects the immune system.

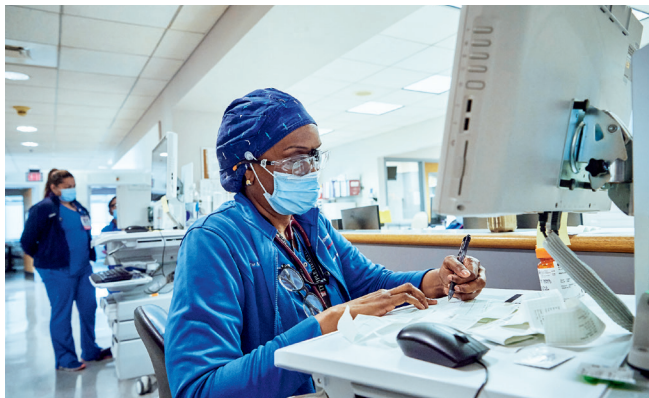
Tecartus, a chimeric antigen receptor (CAR) T-cell therapy, was approved for adults with mantle cell lymphoma who have not responded to or who have relapsed following other kinds of treatment. According to its developer, Kite Pharmaceuticals, the treatment works by first separating white blood cells from a patient’s blood. The T-cells are then sent to a lab where they are modified into CAR T cells that are later infused back into the patient’s body during a 30-minute intravenous infusion administered at an authorized treatment center.

“This is probably one of the most promising therapies for patients with mantle cell lymphoma, including those with a type of disease called P53-mutated mantle cell lymphoma,” said Fung, who served as an investigator on the clinical trial that led to FDA approval. “When patients failed these treatments, even after having durable responses, we had nothing to offer them. The responses we are seeing with Tecartus are like nothing we have seen in the history of mantle cell lymphoma.”

Fung and his team were also co-investigators on a study that was the basis for the recent FDA approval of axicabtagene ciloleucl, also known by its brand name Yescarta, which is also made by Kite Pharmaceuticals. It is the first CAR T-cell therapy approved for indolent follicular lymphoma, a form of indolent non-Hodgkin lymphoma, in patients who have relapsed after two or more lines of systemic therapy.

As Fox Chase continues to expand the BMT department with therapies like Tecartus that will benefit blood cancer patients, the effectiveness of immunotherapy in treating other hematologic malignancies is also being explored. Ongoing clinical trials include investigations into multiple myeloma, chronic lymphocytic leukemia, and follicular lymphoma.

“There has been an explosion of new drug development for cancer, especially in our field, over the last several years,” said Styler. “The pace of that development seems to be accelerating. As they come out, most of them tend to be



Top: Transplant specialist Rashmi Khanal reviews a patient’s status with their nurse. **Middle and bottom:** BMT nurses prep treatment and check patient records.



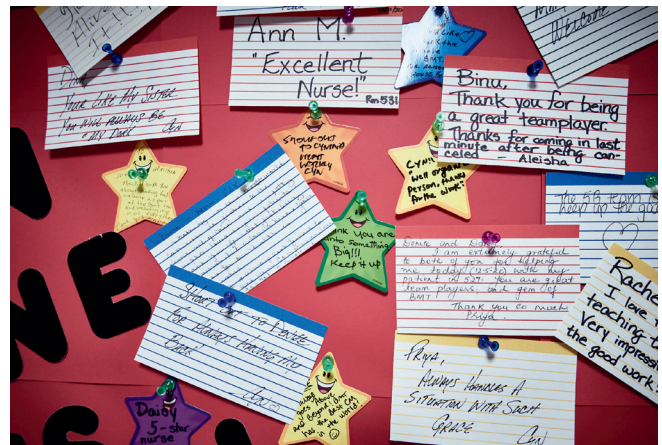
“Dr. Fung was very direct with me. He didn’t try to sugarcoat it. He very plainly told me, ‘This is what we’re going to try.’ I appreciated that.”

— FIRAS SAIDI,
MULTIPLE MYELOMA SURVIVOR

better tolerated and more specifically geared toward some aspect of the cancer, which makes more and more patients eligible to receive those types of therapy.”

Fox Chase and Temple University Hospital continue to make strides in the battle to improve treatment opportunities for patients with blood cancer and blood disorders. The BMT department at Fox Chase partners with other institutions to offer the same patient care outside of the Temple University Hospital-Jeanes Campus.

Fox Chase partners with St. Luke’s University Health Network-Anderson Campus in Easton, Pennsylvania, to provide blood cancer care to patients closer to home to avoid multiple trips to Philadelphia, which is 80 miles away. Fung and his team work collaboratively with colleagues at St. Luke’s to provide the highest quality of care to patients who are



Top: BMT nurse preps supplies for a patient’s treatment. **Bottom:** Thank you notes and words of encouragement for the BMT staff from fellow staff members and patients.

referred from the system’s 12 hospitals and more than 300 outpatient sites. For example, patients can undergo blood and marrow transplant and cellular therapy at Fox Chase and have pre- and post-transplant care at St. Luke’s. Additionally, this partnership and the access it provides allows patients to participate in a wider range of clinical trials.

Fung said he believes much of the center’s continued success will be due to a robust quality improvement program that provides it with continuous feedback. “My philosophy is that we should work together to make an informed decision about what is best for the patient. We can always do better,” said Fung. ♦

The *Art* of Listening

Holistic Approaches to Geriatric Oncology

BY MARIAN DENNIS

There is nothing standard about caring for the oldest cancer population in the United States. Cancer care can be complicated, and treatment can become even more complex as patients age. Geriatric oncology is an area of medicine that considers the best ways to treat such patients.

Experts in the field say physicians need to look at older patients more holistically by considering not just how to treat their cancer, but also other factors such as comorbidities like diabetes and heart disease, as well as their cognitive abilities and social environment. Researchers say they also hope to advance the field by obtaining

more clinical data specific to geriatric oncology patients.

There is no specified age at which an individual should begin receiving geriatric care; most patients don't need it until about age 70 or older. Currently, individuals age 85 and older are the fastest growing cancer population in the United States. The number of individuals in that age group is projected to increase from 6.4 million in 2016 to 19 million in 2060, according to the American Cancer Society.

With this rapidly growing population, effective and individualized care has become more important than ever.

ILLUSTRATION BY TIMO'BRIEN



Challenges in Geriatric Oncology

Perhaps no one is more familiar with these needs than Efrat Dotan, a medical oncologist at Fox Chase Cancer Center specializing in gastrointestinal cancers. Dotan has been working in geriatric oncology since 2010 and has been at the forefront of researching and developing new ways of thinking about the field.

“Medical oncology is an art. There’s no one treatment that fits all,” said Dotan. “The way to think about this is that we have to look at the patient, look at who is in front of us and what they can tolerate.” She said there are a few major obstacles in the field that need to be addressed in order to find that balance. The first group of challenges has to do with determining the true fitness of the patient.

“We know today that chronological age by itself is not a good marker. There are many patients who are in their 70s or 80s who are physiologically in better shape than some of the 60-year olds,” said Dotan. “That is one area that is a big challenge within geriatric oncology, and a lot of the research is focused on how we determine that and what assessments we need to do.”

One of the current approaches used by physicians to determine the overall health and well-being of a geriatric patient is the geriatric assessment. This multidisciplinary tool considers the patient’s physical health, cognitive function and mental health, social interactions, and functional ability. But, Dotan said, doing these geriatric assessments takes time and resources that make them difficult for a busy oncologist to perform.

4 **“Cancer by itself is a disease of older adults, but if we don’t have any data to guide us on how to use various treatments in older patients, it makes it very challenging.”**

— EFRAT DOTAN, MEDICAL ONCOLOGIST

“There’s a lot of research going on in geriatric oncology looking at how we can refine the evaluation of older adults and develop tools that can be used quickly in clinic to help the oncologist in doing the thorough assessment without loading them down with a process that is too complicated,” said Dotan.

Another challenge in the field is a lack of evidence-based data and clinical trials. Many of the studies conducted over the last decade include median age ranges that are much lower than those actually seen in the clinic, Dotan said.

“Cancer by itself is a disease of older adults, but if we don’t have any data to guide us on how to use various treatments in older patients, it makes it very challenging. Physicians end up using their own judgement in terms of dose reducing or adjusting therapies without clear evidence telling us that that’s the right thing to do and that’s the way that the patient would benefit from the treatment the most.”

Matching Treatment to Situation

In many cases at Fox Chase, social workers such as Anjali Albanese, MSW, LSW, OW-C, and Mark Itzen, MSW, LCSW, work with patients throughout their treatment and serve as key players in performing thorough evaluations of patients’ cognitive abilities, social environment, and more. These assessments are pivotal to understanding not only the patient’s best course of treatment, but also the patient as an individual.

“These patients were an entire person with an entire life before they walked through our doors, and cancer is meant to be a part of that, but not really the way we identify who you are,” said Albanese. “So we follow them through their trajectory of care and really get to know who they are as people.”

“We just need to be sensitive,” Itzen said, “and continue to listen to older adults about what their challenges are so that we can try to the best of our abilities to fit the treatment to their situation rather than their situation to their treatment.”

Sheila Kondrosky, 88, learned about the importance of clinicians listening firsthand. Kondrosky, a retired nurse from Huntingdon Valley, Pennsylvania, never had any major medical problems until she was diagnosed with colon cancer in 2017.

“It was a shock. Within four months I needed a knee replacement and then a laparoscopic surgery for my colon cancer,” said Kondrosky. “My experience as a nurse made me even more aware of what had to happen for treatment, and surgery at my age really scared me.”

Kondrosky was also concerned about dealing with the other aspects of cancer at her age, even though she was one of the few geriatric patients who had no comorbidities to further complicate her treatment.

“It was hard to go through because I thought to myself, ‘I lived all this time and now I have to have cancer,’” said Kondrosky. It was also confusing sometimes, she said, because she couldn’t tell which ailments were caused by her age and which were caused by her cancer. Kondrosky found comfort, however, in knowing the doctors at Fox Chase



Efrat Dotan (left) focuses on geriatric oncology. Sheila Kondrosky (right), who is 88, often couldn't tell the difference between ailments caused by her age and those caused by her cancer.

focused specifically on her type of cancer and that, most importantly, they heard her.

“They listened to me, which is so important in geriatrics. It was quite interesting. Sometimes when you're in your 80s, they may listen to you, but not all the time,” said Kondrosky. “I got the sense that the doctors and medical professionals really followed through with me.”

Refining Care

Nurses at Fox Chase are also working to listen to patients and refine care for them, said Susan Copley Cobb, PhD, RN, NPD-BC, director of Professional Development and Practice Innovation. For the last four years, teams of nurses have received training in geriatric oncology at City of Hope in Duarte, California, which is, like Fox Chase, a National Cancer Institute-designated comprehensive cancer center. “The program was such a great experience for our staff to go through,” said Cobb.

According to Jessica Karen Wong, a radiation oncologist at Fox Chase who has coauthored several papers on treating geriatric cancer patients, another part of improving patient care is recognizing how different types of care intersect.

Wong said there has traditionally been a “sharp” divide between definitive care and palliative care in geriatric oncology. “Definitive” refers to using maximal therapy in treating a patient’s cancer, while “palliative” care focuses on keeping symptoms at bay but not necessarily working on eliminating cancer from the body. “Now I think we’re finding it to be more of a spectrum. Treatment isn’t so black and white, and we’re finding that middle ground between the two extremes.”

One important way to find that balance is through taking

a more holistic approach, said William Zirker, chief of geriatric medicine at Crozer-Chester Medical Center and program director of the geriatric fellowship program at Temple University Hospital in Philadelphia. Zirker said it is vital to look at a patient’s social and living conditions in addition to their medical history.

“It’s also really important that someone, whether it’s a geriatrician or another doctor, look at medications with

“My experience as a nurse made me even more aware of what had to happen for treatment, and surgery at my age really scared me.”

— SHEILA KONDROSKY, COLON CANCER SURVIVOR

some regularity, not only whether a patient needs to be on a number of medications, but also what they’re actually taking,” said Zirker. “It’s also important that we screen for things like memory loss, weight loss, and depression.”

Dotan said although a holistic approach can prove challenging for many small community practices that are not as well equipped, patients who go to Fox Chase are fortunate to be treated at a facility that can provide an array of services for older patients.

“The ability to be able to sit down with a patient and really make a difference in their life, and give them hope that there’s things to do for their cancer, is such a satisfying feeling,” said Dotan. “I think one of the big areas of research will continue to be how to provide these holistic approaches in centers that are small and more remote that don’t have access to these services.” ♦

Wasting Syndrome Causes
Loss of Body Fat, Muscle

Coping
With Cancer
Weight
Loss



BY MARIAN DENNIS
ILLUSTRATION BY GERARD DUBOIS



G.L.



Among the many changes that cancer and its treatment bring, perhaps none is more challenging than cachexia (pronounced “kuh-KEK-see-uh”), a wasting syndrome in which patients experience loss of body fat and muscle as a result of advanced cancer or malnourishment. One female patient who weighed 120 pounds before her illness saw her weight drop significantly, by upwards of 20 to 30 pounds, even though she was able to eat regularly.

For Rishi Jain, a medical oncologist at Fox Chase Cancer Center who specializes in cancers of the gastrointestinal tract, cachexia is one of the most pressing issues for cancer patients. He is currently researching the relationships between specific cancers, nutrition, and physical activity with the goal of improving clinical outcomes by enhancing treatment effectiveness and reducing therapy-related side effects.

“Cancer cachexia is best described as a syndrome that can accompany cancer in approximately half of patients. Cachexia is the loss of appetite, weight loss, and more specifically, skeletal muscle loss, that occurs,” said Jain.

It is common in cancer in general, but even more common with advanced cancer, specifically certain types like lung or pancreatic, Jain added. “The appetite, weight, and muscle loss can lead to fatigue, weakness, and ultimately, reduced quality of life, more complication risks, hospitalizations, and even reduced survival.”

Jain said there is usually a great deal of overlap in cases of malnutrition and cachexia, so much so that the terms are often used interchangeably. In some cases, malnutrition can be reversed by meeting the body’s nutritional needs. But for most patients with cancer-related cachexia, nutritional support alone is not enough to reverse the underlying process through which skeletal muscle and fat are broken down uncontrollably.

“We have to do a better job of helping patients and their family members understand that at some point cancer cachexia is irreversible and we have to accept it as a complication that comes with cancer.”

— RISHI JAIN, MEDICAL ONCOLOGIST



For Rishi Jain, the wasting syndrome known as cachexia is one of the most pressing issues for cancer patients.

DIAGNOSING CANCER CACHEXIA

This risk of death makes identifying early signs of cachexia paramount to its treatment. However, although there is evidence-based guidance on identifying stages of cachexia, there is no universal standard for its diagnosis and identifying it can get complicated when patients have different symptoms.

In addition to monitoring symptoms like weight loss to diagnose cancer-related cachexia, physicians may also diagnose cancer-associated muscle loss through routine diagnostic scans, said Charles Loprinzi, a medical oncologist at the Mayo Clinic who served as senior author on the American Society of Clinical Oncology (ASCO) guidelines on cancer cachexia.

“These patients have a propensity to lose muscle mass early on. They might still be a bit heavy and yet have thin muscles,” said Loprinzi. “We didn’t understand that so much in the distant past, but we understand it quite a bit more now. The one way you can see that is on CT scans.” CT scans combine X-ray images from different angles to provide more in-depth images than X-rays alone can provide.

According to the ASCO guidelines, the international consensus is that cancer cachexia is a continuum that can be categorized into three phases: pre-cachexia, cachexia, and refractory cachexia.

The guidelines describe pre-cachexia as occurring in patients who experience only minimal weight loss and have early clinical and metabolic signs that could indicate more weight loss in the future. These signs include anorexia, insulin resistance, inflammation, and hypogonadism.

The ASCO guidelines describe the onset of cachexia as weight loss that exceeds 5% over the previous six months or depletion of muscle mass and more than 2% weight loss. Refractory cachexia is characterized by poor performance status, progressive cancer, and a life expectancy of less than three months.

Not every patient will necessarily experience all stages, and risks of experiencing them vary based on different factors. In all of these stages, appetite and food consumption can play a vital role.

For cancer patients, treatments can often be accompanied by nausea or lack of appetite. For some patients, eating is no longer enjoyable. Some patients lose their sense of taste and can find that when eating, they feel like they are consuming something akin to wet paper.

Loprinzi says although there is no guarantee it will lead to increased survival or weight gain, seeing a dietitian can help patients learn about what they should and should not be eating. It can also provide helpful methods for dealing with loss of appetite.

“Cancer cachexia can be very difficult,” said Tara Mauro, a registered dietitian who works as the oncology nutrition care coordinator at Fox Chase. “As a dietitian, trying to optimize a patient’s nutrition is really important to help prevent further weight loss and maintain the muscle mass they still have. It’s difficult when a patient doesn’t have an appetite, so it can be helpful to set a schedule to remind themselves to eat. That way, it’s less of a push from the caregiver.”

Mauro said it’s imperative that patients dealing with cachexia consume more protein to help maintain muscle mass. She recommends against diets that are overly restrictive and suggests educating both patients and caregivers on preparing nutrient-dense foods that are higher in protein and calories.

“I think it’s beneficial for patients, caregivers, and medical providers to know that a dietitian is always available and is the best person to get the patient in touch with if they are struggling with eating and maintaining their weight,” said Mauro.

In some cases, patients dealing with cachexia may be even

less inclined to eat when family members become involved.

“There’s a story I heard about a psychiatrist who interviewed cancer cachexia patients. She talked with a patient who had advanced cancer and the patient was in her dying weeks. The patient told the psychiatrist that when some of her family members would come to visit her, she would pretend she was asleep, because otherwise they would try to force feed her,” said Loprinzi.

“I get chills when I say that. The person has limited time, and valuable family interactions are more important at that stage of the disease process than trying to get in a few more calories,” he added. Loprinzi said he tells struggling family members that they should give a patient food if they want it, but trying to force an individual to eat may ultimately be counterproductive.

“Sometimes cachexia, particularly toward the end of life, can cause a lot of stress on patients and family members because eating is something that is very social and very important as a behavior,” said Jain. “We have to do a better job of helping patients and their family members understand that at some point cancer cachexia is irreversible and we have to accept it as a complication that comes with cancer.”

“A dietitian is always available and is the best person to get the patient in touch with if they are struggling with eating and maintaining their weight.”

— TARA MAURO, REGISTERED DIETITIAN



LOOKING AHEAD

Although many cases of cachexia can make a cancer diagnosis look bleak, there is still some hope on the horizon, according to researchers.

Loprinzi said some exciting developments in clinical trials include a recent paper he published on the use of the anti-psychotic drug olanzapine for patients with advanced cancer. The research showed olanzapine to be effective in controlling nausea and vomiting in patients with advanced cancer; additionally, olanzapine appeared to significantly impact a patient’s appetite and improve their quality of life.

Jain said researchers at Fox Chase are also currently doing novel work to develop more effective approaches to cachexia. This includes clinical trials in which researchers are looking at chemotherapy in combination with an anti-cachexia medication to determine if cachexia that arises from pancreatic cancer is preventable.

“From a diet perspective, I’m also doing some trials looking at a computerized diet assessment tool to see if we can better capture what people are eating, which could better signal a person who is developing cachexia,” said Jain. “We absolutely have to put in all our effort to try to use the tools in our toolbox to manage cachexia.” ♦

TAKING A HOLIDAY FROM CANCER

BY TAYLOR JOHNSON

Doug Payne has been in the music business since he was a child, so music is his life. He graduated from Fiorella H. LaGuardia High School of Music & Art and Performing Arts in Manhattan, made famous by the movie “Fame,” and Howard University. He is a singer and guitar player who was a member of the Sister Sledge touring band. In 1982, his band, Doug Payne & Polygon, released their first single, “Holiday,” which received a good deal of airplay on radio stations that played funk and R&B music.

But at age 63, Payne was spending his time writing and recording music with artists ranging from pop to R&B to funk. From producing songs to performing for local television, these things were a regular part of his life. He had also spent 25 years as an instrumental music teacher until he retired and returned to the recording industry. Little did Payne know that he would have to put his music on hold.

In September of 2018, Payne was producing a song when he noticed a lump on his back. His wife encouraged him to get it checked out, but he elected to wait. It wasn't until the lump had grown from the size of a grape to the size of a

plum that he decided it was time to go to the doctor. After conducting a physical, the doctor told him they would perform surgery to remove the tumor. At his follow-up appointment, they told him he had cancer and referred him to Jeffrey M. Farma, a surgical oncologist at Fox Chase Cancer Center.

Payne said he wasn't totally surprised by the news, but he wasn't looking forward to treat-

ment. “Very rarely have I spent a prolonged amount of time in a hospital or had any kind of surgery previously. Not to mention, cancer isn't common in my family, so the diagnosis led me to reflect on different aspects of my life.” Payne added that he was glad he had listened to his wife when he did, although he should have done so earlier.

“I've been able to return to the studio and am recording, producing, and performing music.”

— DOUG PAYNE, SARCOMA SURVIVOR

ment. “Very rarely have I spent a prolonged amount of time in a hospital or had any kind of surgery previously. Not to mention, cancer isn't common in my family, so the diagnosis led me to reflect on different aspects of my life.” Payne added that he was glad he had listened to his wife when he did, although he should have done so earlier.

When Payne first met with Dr. Farma, he ordered a CT scan. The results revealed that Payne had dermatofibrosarcoma protuberans, a rare type of sarcoma

that leads to the development of tumors in the deeper layers of the skin. He had three surgeries with Dr. Farma to remove the tumor, as well as plastic surgery with Sameer A. Patel, a plastic and reconstructive surgeon.

It was a difficult experience at first, but Payne said he was able to adjust with support from his wife, who has worked in doctors' offices and as a medical transcriptionist

for years. Her experience gave him the in-house help he needed.

After Payne was allowed to return to work, he started substitute teaching again. Around the same time, he began radiation therapy with Krisha J. Howell, a radiation oncologist. He would leave school in the afternoons and go to his appointments. From January through March 2019, he received 30 radiation treatments.

“I went in every day from Monday to Friday, and that's how I got to know everybody on a first-name basis. I was able to meet



friends just by going to Fox Chase, from the receptionist to staff in the radiation department,” Payne said.

During one of his radiation treatments the staff played “Holiday.” “When I told them I wrote it, they were laughing behind the glass the whole time. I was able to talk to them about my time in the music industry, and we really got a kick out of that,” Payne said.

His treatment process turned out to be a pleasant experience overall. Everybody was very professional and friendly, he said, and he really enjoyed being at Fox

Chase for his treatment. “I can say that they saved my life.”

“It’s been two years since my diagnosis, and I feel great today!” Payne said. Other than slight stiffness in his back, he feels extremely healthy and is back to his normal life. “I’ve been able to return to the studio and am recording, producing, and performing music.” In addition, Payne recently received the Martin Luther King Jr. Honoring The Dream Award for promoting peace in his Phase 5 Records music video, “Our Lives Matter, (Wake Up Rise Up).”

Payne said he still has follow-up appointments at Fox Chase and every time he goes back, he makes sure he thanks everybody. “I don’t know if they hear it often, but they deserve it. The staff are all really great, and I appreciate what they did for me,” he said.

Payne said he’s glad he listened to his wife about his tumor when he did. “Nowadays, I always try to motivate people who are going through a similar experience to get medical advice as soon as possible. I’m a living example of how Fox Chase can save your life.”

A SCIENTIST WITH PASSION

BY MARIAN DENNIS

Tomasz Skorski is a self-proclaimed workaholic. He works six days a week and says his top priority when he bought a vacation home was making sure he had high-speed internet so he could work. Skorski's dedication to science and medicine has been a lifelong passion that has never subsided.

Skorski is an associate professor in the Blood Cell Development and Function Program at Fox

on determining the role of DNA repair mechanisms in acute and chronic leukemias. His interest in research and biology began as a young man. Growing up in the suburbs of Warsaw, Poland, Skorski spent much of his time outdoors. Until high school, he enjoyed nature so much that he planned to become a forest ranger. That goal quickly shifted, however, when he received his first microscope as a Christmas present.

Medical Academy of Warsaw with a medical degree and later received a PhD from the Medical Center for Postgraduate Education in 1986. He then studied at the Medical Center for Postgraduate Education and graduated in 1990 with a doctor of science degree.

"I grew up in a communist country, where the research opportunities were very limited. So I decided that if I go to medical school, I'll get a medical education and know better what kind of problems we should address by doing research," said Skorski.

After postdoctoral work in Poland, Skorski came to Philadelphia with his wife, Margaret Nieborowska-Skorska, who also had a medical degree and a PhD, after receiving an offer from the Department of Pathology at Temple and the Fels Institute. He worked there as a postdoctoral fellow from 1990 to 1991.

"I was doing very well in Poland, and I didn't want to leave, but you have to go abroad to see other labs. I figured if I went back to Poland after that, my career would accelerate," he said. "So I came to Philadelphia, and after half a year I knew this was the place I should stay."

Currently, Skorski's lab is doing

"I think the most valuable thing I can tell people who are getting into the research field is that they need to have very thick skin. They have to live with rejection after rejection to eventually be successful."

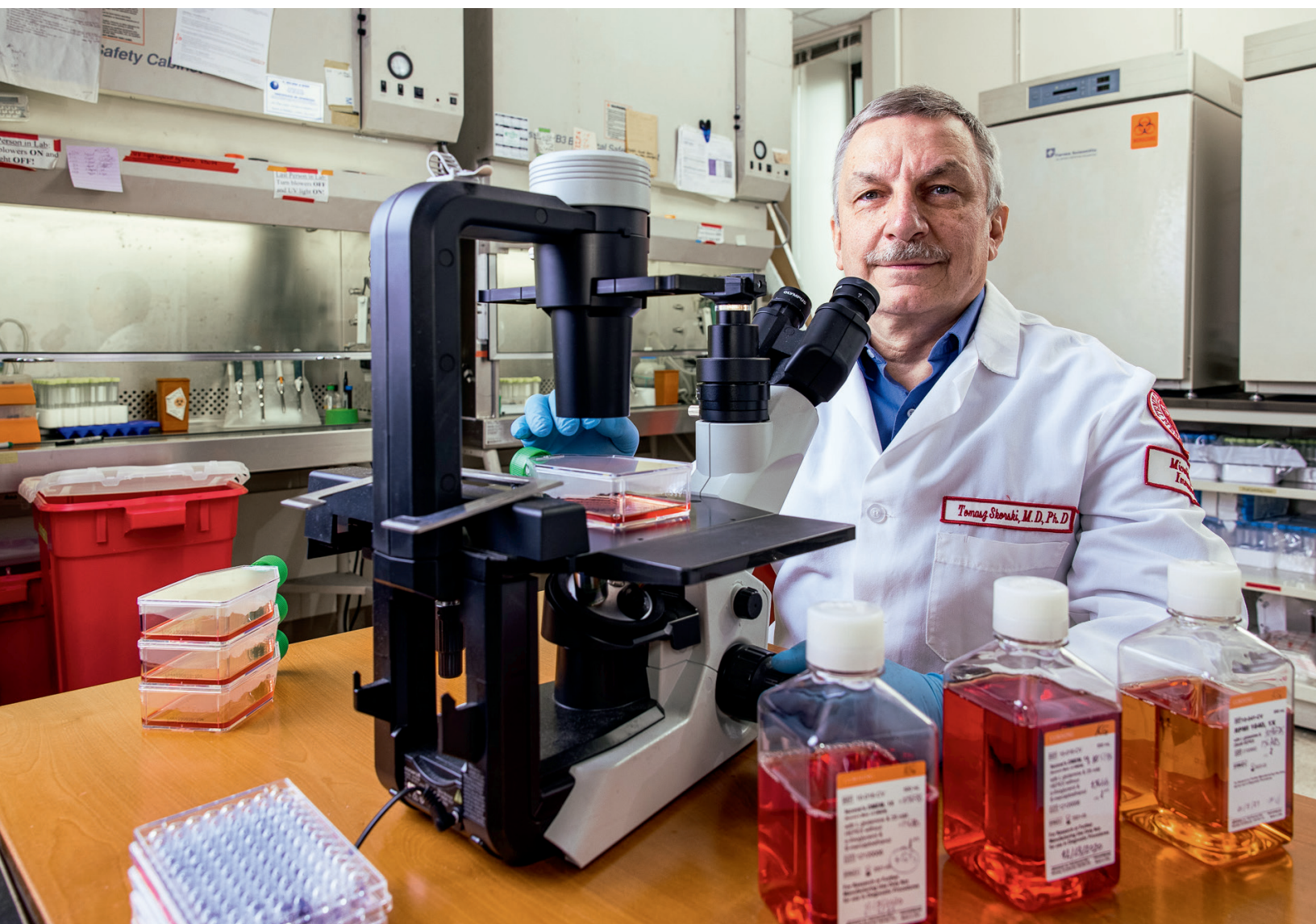
— TOMASZ SKORSKI, DIRECTOR, FELS INSTITUTE FOR CANCER RESEARCH AND MOLECULAR BIOLOGY

Chase Cancer Center, which is part of the Temple University Health System. He is also the director of the Fels Institute for Cancer Research and Molecular Biology at Temple University's Lewis Katz School of Medicine.

As a researcher, his lab focuses

"I got so excited because I could see all these small things moving around. I immediately decided I wanted to be a researcher," said Skorski.

That excitement led him to his future as a scientist. In 1982, Skorski graduated from the



basic research to understand why leukemia cells use the pathways they do. “We are trying to cure leukemia and have designed a new approach. We use a strategy called ‘synthetic lethality.’ The idea behind it is that ‘good’ cells have two pathways or mechanisms to protect themselves,” said Skorski. “Cancer cells only have one because of the mutation or changes that occur. The cancer cells rely on one pathway that is exceptionally strong. So if you identify this pathway, you can target it and kill the cancer.”

When he’s not working on leukemia, Skorski makes sure he takes one day a week for himself. Before COVID-19 restrictions,

he and his wife often enjoyed traveling. They spent a lot of their time in the mountains and at their summer house near Cape May, New Jersey.

Since the emergence of COVID he is, like many people, staying close to home. “I really enjoy gardening, particularly flowers or trees. I also, believe it or not, enjoy chopping my own firewood for my fireplace,” he said.

He also spends his time walking and playing with his four-year old German boxer, Max. “My dog is 84 pounds of energy. If it weren’t for him I would be a couch potato, so he’s adding years to my life.”

Skorski said although he enjoys

the days he reserves for himself, his real life’s passion is and always will be science and research, even when things get challenging. He has a simple reminder to help him through the tough days.

“My philosophy is very simple: ‘Never give up,’” said Skorski. “I think the most valuable thing I can tell people who are getting into the research field is that they need to have very thick skin. They have to live with rejection after rejection to eventually be successful, whether it’s with grant applications or manuscript submissions or anything else. You can’t be discouraged by these rejections. You just have to keep going.”

EXCEPTIONAL EXPERIENCE LEADS TO EXCEPTIONAL GIFT

BY ANDREW BECKER

In 2012, Roberta Scheller learned she had kidney cancer and asked the doctor who diagnosed her to recommend the best specialist to treat it. By referring her to Robert Uzzo, a nationally renowned surgeon at Fox Chase Cancer Center, that original doctor made a decision sure to improve the lives of countless people facing a range of urologic cancers. That's because Roberta and her husband Ernest were so impressed with the care she has received over the years that they recently established the Roberta R. Scheller Chair in Urologic Oncology. It is the first new endowed chair at Fox Chase since 2012.

An endowed chair creates a new perpetual fund for cancer research and is among the most impactful gifts a donor can make. It is also the highest academic distinction a faculty member can earn. Alexander Kutikov, chief of urology and urologic oncology at Fox Chase, has been selected as the inaugural holder of the Scheller Chair.

Often, when a grateful patient makes a gift to Fox Chase, it's

because he or she is pleased with their treatment. The Schellers' appreciation arose from a treatment that Roberta didn't receive. Based on his team's publications regarding the role of active surveillance in localized renal tumors, Uzzo recommended a biopsy followed by active surveillance. Together they have closely monitored the tumor and Roberta has had

supported many charitable causes. They have made major contributions to educational and cultural institutions, such as Ernest's alma mater, Georgia Tech, and the Franklin Institute. They felt very well cared for at Fox Chase and were inspired to make a transformational gift.

"Our experience at Fox Chase has been exceptional. We've seen

"Our wish for Dr. Kutikov as the first Scheller Chair is simple. We want him to save lives and make families happy."

— ROBERTA SCHELLER, FOUNDER OF ENDOWED CHAIR

no progression, symptoms, or changes in kidney function since diagnosis. In fact, she has continued to travel and be quite active.

"Dr. Uzzo is a world-class surgeon, but he preferred not to operate unless he had to," Ernest said. "I admire him so much for that. I think he's a fantastic doctor."

Over their 66 years of marriage, "Bert and Ernie," as friends call the couple, have generously

how everyone focuses on each patient. We are happy knowing that this gift will enable more families to have a good outcome like mine," said Roberta.

Kutikov is an award-winning surgeon who treats patients with all types of genitourinary cancers and a recognized leader in defining best practices both within Fox Chase and the field of urologic oncology. He has held numerous



Alexander Kutikov (left) will be the inaugural holder of a new chair endowed by Roberta R. Scheller (right) and her husband Ernest.

leadership roles within top professional and academic associations and has published more than 250 papers and book chapters. His packed schedule also includes clinical trials, the peer-review process, collaborating with scientists on lab research, and training the next generation of urologic surgeons. Beloved by patients and respected by colleagues, he is consistently named a Top Doctor by Castle Connolly and *Philadelphia* magazine.

“As a surgeon, researcher, educator, and innovator, Dr. Kutikov is

profoundly deserving of the honor of this new endowed chair. I’m excited to see all he will accomplish with this support,” said Uzzo, who holds the G. Willing “Wing” Pepper Chair in Cancer Research.

The Schellers say they have been very lucky in life, and it’s important to share their good fortune in ways that can improve life for others. Ernest spent decades running Silberline Manufacturing Company, which his father founded in 1945. The company is now global, but remains family-owned and run,

with daughter Lisa at the helm. Roberta worked in publishing, raised their family, and completed her college degree later in life. Skiing is a family passion, and Ernest still hits the slopes at age 91. Roberta gave it up in her 80s.

Their vision for what can be accomplished with their gift is straightforward and conveys a particular trust in Kutikov and Fox Chase to achieve it. “Our wish for Dr. Kutikov as the first Scheller Chair is simple. We want him to save lives and make families happy,” said Roberta.

VIRTUAL *IN VINO VITA* RAISES MORE THAN \$700,000

Fox Chase Cancer Center presented its signature fundraising event, *In Vino Vita*, on October 2, 2020.

Due to the COVID-19 pandemic, the seventh annual event was held virtually for the first time and raised over \$700,000 for cancer research at Fox Chase.

Each year, *In Vino Vita*, which is usually held in Center City Philadelphia, has featured live music, a multicourse dinner, and an auction of high-end wine and related experiences. This year, guests were invited to participate

from home. The online event still included entertainment, as well as live and silent auctions where the highest bidder could win experiences from top winemaking talent.

As in previous years, the event featured the Special Pledge as the highlight of the evening. The purpose of the pledge is to focus fundraising efforts on a significant opportunity that will directly impact the future of cancer research, treatment, and care at Fox Chase. At this year's event, the special pledge, which was focused on funding young investigators, raised \$400,000.



Fox Chase President and CEO Richard I. Fisher and his wife Susan, Associate Cancer Center Director for Community Outreach and Health Disparities (left), at this year's virtual *In Vino Vita* event. On the right are Assistant to the President J. Robert Beck and his wife Maggie. In the center is host Jeff Hammond.

RADIATION ONCOLOGY RESIDENCY PROGRAM RECEIVES ACCREDITATION

The Radiation Oncology Residency Program at Fox Chase Cancer Center has been accredited by The Accreditation Council for Graduate Medical Education (ACGME).

"It's recognition of Fox Chase as a top-shelf program ... It's validation that we have a long-recognized, venerable, and academically impressive program. It doesn't matter how good we are if the ACGME doesn't think the same," said program director Stephanie Weiss, chief of the Division of Neurologic Oncology at Fox Chase.

FOX CHASE RECEIVES GUARDIAN OF EXCELLENCE AWARD

Press Ganey has recognized Fox Chase Cancer Center with its 2020 Guardian of Excellence Award for providing outstanding clinical performance for patients in its outpatient clinics.

Press Ganey is an independent market leader in helping health-care institutions measure patient satisfaction and better understand the patient experience. "This kind of recognition is meaningful because it originates from feedback provided by our own patients," said Richard I. Fisher, MD, president and CEO of Fox Chase.

Performance data comes from the Clinician and Group Consumer Assessment of Healthcare Providers and Systems survey, which is administered by the U.S. Department of Health and Human Services through its Agency for Healthcare Research and Quality.

CENTER EARNS HAP AWARD

Fox Chase Cancer Center earned the Achievement Award from The Hospital and Healthsystem Association of Pennsylvania (HAP) for its outstanding effort to improve health care in the communities it serves.

Fox Chase's entry was chosen as an Excellence in Care award winner. Twelve projects were selected from 131 submissions. The multidisciplinary speech pathology team investigated why the use of a nasal feeding tube may better correct swallowing issues experienced by head and neck cancer patients compared to the more typical stomach-linked feeding tube.



Molly and Zoey at the starting line of their own Paws for the Cause walk for this year's virtual event.

PAWS FOR THE CAUSE A VIRTUAL EXPERIENCE IN 2020

Although attendees could not gather at Fox Chase Cancer Center for the 21st annual Paws for the Cause dog walk, the event's new virtual format offered the opportunity for participants to connect and walk together virtually, creating a spirit of warmth and camaraderie throughout the month-long October celebration. Thanks to 341 donors and sponsorship support led by title sponsor West Pharmaceutical Services Inc., Paws raised more than \$104,000 in support of cancer research.

Hosted by the center's Board of Associates, the event highlights

included a kickoff "Pup Rally" video featuring emcee Sue Serio from Fox 29 and her dog Rufus, remarks from Richard I. Fisher, president and CEO of Fox Chase, Physician and Patient Ambassadors, and more.

Social media played a leading role this year. Regular posts invited engagement on the event Facebook page, resulting in wonderful photos of people and their pets walking, snuggling, and enjoying the event virtually. Paws for the Cause 2021 is already scheduled. It will be held Sunday, October 3, 2021, and will be followed by a two-week virtual event.

25TH ANNUAL TRAINEE RESEARCH DAY

On October 13, 2020, Fox Chase celebrated its 25th Trainee Research Day, an annual, all-day scientific event designed to foster a sense of community and collaboration between the institution's five research programs and seven clinical departments.

The event was held virtually and attracted nearly 200 research and clinical professionals from Fox

Chase and throughout the region. There were sessions headed by faculty, as well as presentations from eight postdoctoral associates and graduate students. Some of the topics covered included bench to bedside sessions on clinical drug development, the biology of gastrointestinal stromal tumors, and cancer metabolic ecosystems. The event was organized and hosted by the center's junior scientists.



Carolyn Y. Fang has been promoted to the role of Associate Director for Population Science. Fang's new role will include overseeing the scientific and programming direction for population science at Fox Chase.



Jeffrey Farma was recently admitted to the prestigious Academy of Master Surgeon Educators. The academy operates under the American College

of Surgeons Division of Education; members of the academy are selected through a rigorous peer-review process.



Erica Golemis was recently appointed senior editor at *eLife*. It is a nonprofit, peer-reviewed open access journal for

the biomedical and life sciences that is supported by the Howard Hughes Medical Institute and other leading research organizations.



Colleen Tetzlaff, an advanced practice clinician at Fox Chase, was named president of the Association

of Physician Assistants in Oncology for 2020-2021. The association is affiliated with the American Academy of Physician Assistants and is the only national organization representing physician assistants specializing in oncology.



Christian Koch was named a review editor for *Frontiers in Cancer Endocrinology*, a specialty section in

the journal *Frontiers in Endocrinology*, a peer-reviewed, open-access journal.

ROBERT 'BOB' PERRY: A SCIENTIST AHEAD OF HIS TIME

BY SARAH JAYNE HUGHES

Robert “Bob” Perry was a pioneer in RNA research, devoting his career to the field from the earliest days of his work. His lab was one of few worldwide in the 1960s trying to understand how DNA was copied to RNA in living cells, using the simplest of tools.

“For today’s graduate students and postdocs, it is virtually impossible to imagine how important discoveries could be made with the Stone Age tools then at hand,” noted

Spanish, and French, Perry regularly served as a visiting professor in Europe. Perry enjoyed being a mentor. He spent time teaching molecular biology and biochemistry to graduate students at the University of Pennsylvania and worked extensively with postdoctoral fellows at Fox Chase.

Anna Marie Skalka, former director of the ICR and senior advisor to the president, recalled Perry holding weekly seminars to discuss the latest scientific articles. At

Just two years after joining Fox Chase, Perry had his first solo authored paper, which helped describe mammalian RNA synthesis. It was published in the prestigious journal *Proceedings of the National Academy of Sciences*. Perry’s cutting-edge research led to his election to the U.S. National Academy of Sciences.

Perry was a founding editor of the journal *Cell*. He was published in its first issue in 1974 for his innovative research describing how DNA and mRNA are fundamental components of cell function, work that Chernoff said was ahead of its time. Some of the research on how mRNA is edited was ignored for decades but is now the subject of intense interest.

Perry became leader of the Cell and Developmental Biology Program at Fox Chase and was the first recipient of the Stanley P. Reimann Endowed Chair in Oncology Research, named after the founder of the ICR. A year later he was awarded the Stanley P. Reimann Honor Award.

Perry retired from Fox Chase in 2004 to spend more time with his wife of 57 years, Zoila. He had fond memories of his time at ICR and Fox Chase, which he described as a place that “enables scientists to achieve prestige as individual investigators, and at the same time, to develop a pride in the institution. Together these things make a happy life.”

Perry died July 15, 2013.

“Bob was a scientist’s scientist, a true visionary whose work represents an unparalleled example of the value of basic research.”

— JONATHAN CHERNOFF, SENIOR VICE PRESIDENT,
FOX CHASE CANCER CENTER

an obituary of Perry that appeared in the journal *Cell*.

“Bob was a scientist’s scientist, a true visionary whose work represents an unparalleled example of the value of basic research,” said Jonathan Chernoff, senior vice president at Fox Chase Cancer Center.

Perry spent the majority of his career at Fox Chase, beginning in 1960, when it was known as the Institute for Cancer Research (ICR).

A first-generation Italian-American who was fluent in Italian,

those meetings, most of the young faculty quickly became aware of his reliable presence, said Skalka. They also came to know him for his intellectual rigor.

“Bob was a source of considerable anxiety when it came to giving seminars, because he would sit in the front row and ask all the tough questions, making you think critically,” said David Wiest, deputy chief scientific officer. “If he was not happy with your presentation he would immediately walk out when you were finished. So, if he stuck around after, you knew you did well.”





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