

FOX CHASE *Forward*

BROADENING THE CONVERSATION ABOUT CANCER | FALL/WINTER 2017



IT TAKES A PLANET

The (Human) Race Against Cancer

 **FOX CHASE**
CANCER CENTER

TEMPLE HEALTH

THINKING GLOBALLY

Our world is vast. Yet, amid its enormity, there is simplicity. In dealing with cancer, we see this idea at work. The disease has many causes, tumor types, and progressions. It affects people of all backgrounds, who experience it in different ways and confront it with different approaches.

The complexity of cancer, however, is balanced by the basic human response to it. While cancer transcends borders, so too does our compassion for those affected, our hope for progress, and our drive for conducting research, caring for patients, and raising funds. We build strength by coming together, using our diversity to enrich our collaborations.

In this issue, we provide a snapshot of the state of cancer treatment and research amid world cultures. While not an exhaustive overview, our discussion reflects the personal experiences and unique perspectives of those within our community. They hail from various parts of the world. They have studied internationally. They

travel abroad to forge scientific collaborations and to do consulting work. Their paths intersect at Fox Chase Cancer Center.

Interestingly, the many variables that affect cancer care in any country allow for us to each make diverse observations in the same countries. We offer thought-provoking insights to engage you and encourage you to think more about cancer from a world view.

By forming global alliances, Fox Chase professionals are providing a framework to share knowledge, mentor colleagues, and develop innovative projects. Our institution has a long history of such work. Today, we have relationships with partners in such places as Russia, Israel, China, and India to build biosample repositories of an international standard, consult on the development of new cancer hospitals, collaborate on research projects, and work with physicians to bring new perspective to how they practice medicine.

Here at home, we see the influence of cultural traditions and beliefs on patient care interactions.



With doctors who have trained in other countries and international patients who come to the United States for cancer treatment, we navigate differences in health systems and care delivery. We are studying why some people suffer health disparities because of ethnic and racial background and how genetic makeup predisposes some to a higher risk of certain cancers.

As we absorb all we can about our vast world, we stay ever mindful of its people. We never stop refining what it means to provide exceptional care for each one of our patients.

Richard I. Fisher, MD
PRESIDENT AND CEO

FOX CHASE **Forward** FALL/WINTER 2017

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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CONTENTS

FEATURES

4 It Takes a Planet

Cancer is a global problem that doesn't stop at any border. This special section looks at patient care, cancer control, and scientific research with a global perspective.

6 Around the World

Meet a man whose search for hope took him thousands of miles from home, scientists who were trained in various parts of the world, and learn how global research collaboration works.

12 Cross-Cultural Collaborations

Patients can now seek treatment internationally, researchers work closely across oceans, and physicians assist one another from different continents.

16 DNA, Disposition, and Disparities

What causes certain groups of people to have disproportionately higher risk for some types of cancer? Why do others have natural resistance to proven therapies?

18 Found in Translation

Communication is the key to the doctor-patient relationship. Fortunately there are many options to help patients and providers who speak different languages communicate with each other.

DEPARTMENTS

2 FOCUS: Around Campus

Fox Chase nurses help a Jordanian cancer center pursue nursing's most prestigious recognition. | After Fox Chase transitioned to color-coded scrubs, one nurse saw an opportunity to donate the old scrubs to a hospital in Zambia.

20 CLOSE-UP: Changing Course

Diagnosed with a rare form of cancer, Mahmood Saeed was left with limited options in his home country of Pakistan. He and his family relocated to Philadelphia, where lifesaving treatment awaited him.



22 MAKING A DIFFERENCE: A Sister's Legacy Continued

Cheryl Herman founded the Eileen Stein Jacoby Fund for Breast Cancer Research as a way to honor her late sister and has raised more than \$2 million in the process.

24 REVIEW: News of Note

Special Events | Honors & Awards | Notable Accomplishments

28 REWIND: Friendship is the Best Medicine

A chance meeting of scientists from different parts of the world led to a Nobel Prize-winning discovery, and lives saved in more ways than one.

NURSES WITHOUT BORDERS

For nearly 25 years the American Nurses Credentialing Center's Magnet designation has been recognized worldwide as the most prestigious accreditation a nursing department can earn. Becoming a Magnet facility often takes years of preparation followed by a rigorous review process.

In 2000, Fox Chase Cancer Center became the first Magnet hospital in Pennsylvania, and is one of only 13 hospitals in the U.S. to have successfully renewed the designation four times. So when

“This collaboration enables our excellent nurses to influence the way patients receive care nearly 6,000 miles away.”

— KATHY WOLF
MAGNET DIRECTOR AT FOX
CHASE CANCER CENTER

the King Hussein Cancer Center in Amman, Jordan decided to pursue Magnet status, chief nursing officer Majeda A. Al-Ruzziieh reached out.

“We saw their nurses present at the 2012 National Magnet Conference, and knew they were a true authority on what it takes to maintain that level of excellence,” Al-Ruzziieh said. “Since then our friends at Fox Chase have been willing guides on a range of policies, standards, and initiatives.”

Al-Ruzziieh and Mohammad

M. Awwad, Magnet program director at King Hussein Cancer Center, have sought advice on patient and nurse satisfaction, glucose testing, setting up an outpatient telephone triage system, and more. The relationship has taken place mostly via email and occasional conference calls, though Al-Ruzziieh met her Fox Chase counterparts Anne Jadwin, chief nursing officer, and Kathy Wolf, Magnet director, in person at the 2016 Magnet conference. Al-Ruzziieh says the pair have an

open invitation to visit Amman.

“Serving on the front lines of clinical care, nurses are accustomed to helping people one patient at a time,” Wolf said. “This collaboration enables our excellent nurses to influence the way patients receive care nearly 6,000 miles away.”

Fox Chase submitted its latest Magnet renewal application in October 2017, and the King Hussein Cancer Center will submit its first application in June 2018.



GOING THE EXTRA MILE

After a journey spanning three continents, it was the last half mile that was the most challenging. “To reach the hospital in Zambia we were going to have to carry four stuffed suitcases uphill on a red dirt road that was muddy from the rain,” said Wanda Thuma-McDermond, PhD, RN, professor of nursing at Messiah College.

Luckily, a local ministry provided a car to take Thuma-McDermond, her students, and the suitcases over that muddy last leg of the journey. Once the driver learned that they were delivering hundreds of sets of donated medical scrubs to Macha Mission Hospital, the ride was free.

The scrubs were donated earlier this year by Fox Chase Cancer

Center, where Jen Ranck, a surgical nurse and alumna of Messiah College, collected them from her colleagues. In college, Ranck learned about life in Zambia from friends who had studied there for their senior nursing practicum. She knew 16 million people faced many health-related shortages.

“When Fox Chase transitioned to color-coded scrubs, a lot of staff had extra sets,” Ranck said. “I saw an opportunity to help Zambia in a small, but meaningful way.” She collected scrubs over the course of three weeks, and sometimes the collection bins were so full that others helped carry them to her car.

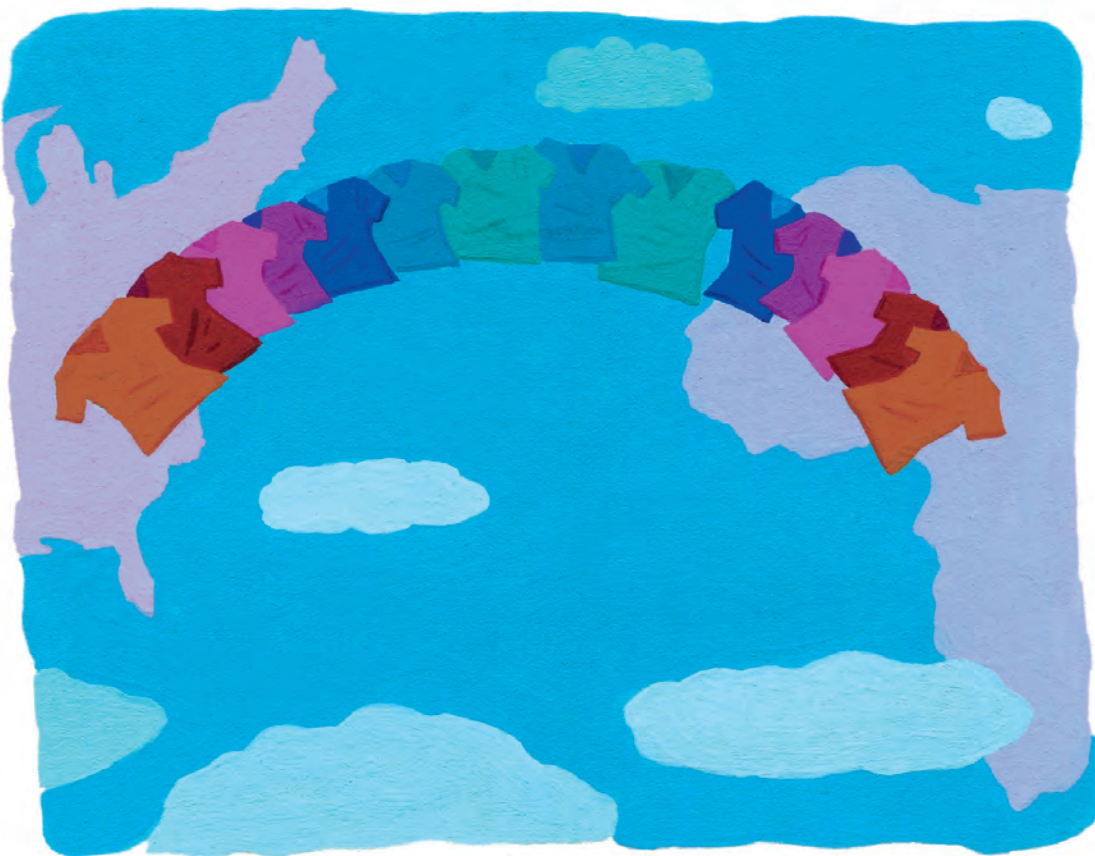
Ranck donated 244 tops, 168 pants, and 10 jackets to the hospital, which describes itself as, “a moderately equipped rural

“I saw an opportunity to help Zambia in a small, but meaningful way.”

— JEN RANCK, SURGICAL NURSE
AT FOX CHASE CANCER CENTER

hospital.” They are now used in operating rooms, maternity and delivery unit, and the nursing school halfway around the world.

Ranck and her husband also covered the baggage fees. When an airline agent heard what was in the cases, like the driver, she waived the fees. The money went toward repairing the Mission’s premie room, which was damaged in a storm.





It Takes A Planet

The (Human) Race Against Cancer

In towering, glittering cities, it lurks. • Over sleepy mountain villages, tiny fishing towns, and sprawling suburbs, it looms. • Ignoring borders and barriers, it seeps into every country, settling, disrupting, destroying. • Syöpä. • καρκίνος. • Cancer. • And yet, for every move cancer makes, there is something else lingering, floating, flickering. • Найдвар. • Berharap. • Hope. • Devastated by loss but driven by hope, people unite in an effort to develop new therapies and deliver stellar, compassionate care. No one country, no one laboratory, no one person, holds the solution. • Juntos, buscan respuestas. • Pamoja, wanatafuta majibu. • Together, they look for answers.

BY PAIGE ALLEN
PHOTO ILLUSTRATIONS BY
SPOOKY POOKY

Around the World:

Solving the Same Problem from Different Angles

There were no other options. There was nothing else that could be done. At 40 years old, he was dying. In his home outside Shanghai, China, doctors told *Mu Sang that despite having his left kidney removed three months earlier, his renal clear cell carcinoma had spread to his lungs, bones, and liver.

Though there were several targeted drugs that could treat Sang's cancer, access to them was limited throughout China, especially outside the bigger cities.

Eventually, doctors put him on a drug similar to ones available in China's big cities and outside its borders.

Desperate, Sang began to look for a clinical trial that might help. But in China this proved difficult.

"Overpopulation, lack of knowledge about cutting-edge trials, and long approval times prevent patients from receiving the care they so desperately need," Sang said. "I knew my best chance of survival was to come to the United States."

Through a cousin who worked in the pharmaceutical field and lived in Princeton, New Jersey, he found his way to a trial managed by Elizabeth Plimack, chief of genitourinary medical oncology at Fox Chase Cancer Center.

Immediately, he noticed differences between the hospitals and cancer care in the U.S. and China. Due to China's large population, demand for physicians is high and patients struggle with excessive wait times before getting in to see a doctor.

"In China I felt like I had to be an Olympic gymnast in order to tolerate the wait time and commute in between appointments," Sang said. "I felt like I had to compete with

other patients in order to be seen by a doctor."

Sang's experience is not unique. Just as cancer rates vary around the world, so do the ways in which it is treated, detected, talked about, and researched. Geography influences individual cancer risk, as well as prognosis, and even whether one's cancer is discovered at all.

Visiting China in July, radiation oncologist Mark Sobczak, medical oncologist Igor Astsaturov, and surgical oncologist Jeffrey Farma observed high quality care hindered by some lack of coordination among physicians.

"With the multi-disciplinary approach in cancer care, medical oncologists work with surgeons and radiation oncologists," Astsaturov said. "It's totally natural for us in the United States. In China, the care is quite fragmented."

Creating an environment that welcomes collaboration is instrumental in helping the nation improve its cancer care, said Sobczak.

"It's an alien concept, sharing patients and responsibility," he said. "It's the single greatest deterrent to moving care forward."

The embrace of traditional Chinese medicines, which still capture the attention of patients over proven treatments, further complicates cancer care.

"Traditional Chinese medicine and herbal medicine still has strong roots there," said Sobczak. "It's a competing effect there while here, patients may pursue habits such as clean eating, yoga, or meditation, which can improve a patient's quality of life in conjunction with surgery, chemotherapy, and radiation."

Standardizing guidelines and reporting metrics will also help China improve its cancer care, said Farma.



“They have a lot of the tools but there are simple things we could collaborate on to improve care, such as relying on National Comprehensive Cancer Network guidelines to dictate care and developing a system of reporting metrics. It would be a great benefit.”

Differences in Care

For clinicians and researchers who trained outside the U.S., navigating differences in health systems and cancer care, as well as culture, can be challenging.

In Russia, physicians tend to be more authoritative, making decisions for their patients, said Astsaturov, who received his medical degree and PhD in Russia before moving to North America for his postdoctoral fellowship and residency. Additionally, family members may seek a physician’s help in concealing a diagnosis from the patient, for fear of upsetting them.

“I’ve grown to appreciate patient autonomy and as a physician become very cognizant of my patients making their choices and me being in an advisory role,” Astsaturov said. “We recognize that patients have the absolute right to make their own decisions.”

Physicians are also sometimes forced to shift how they approach medicine to suit the culture of the country they’re working in.

“The tempo in the United States is very different,” said Stefan Barta, a medical oncologist at Fox Chase who received his medical degree in Germany and completed

residency training in the United Kingdom. “Here, you get a battery of tests and everything happens in the same day or two. Malpractice claims are very common in the U.S. and physicians often practice defensive medicine, which results in higher health care costs.”

By ordering a range of tests – even some that may be irrelevant – physicians seek to ensure they’ve covered every possibility. But the extra tests, in addition to being costly, can create unnecessary problems. A test may reveal a lung nodule, for example, causing a patient to undergo the stress of additional tests and the fear of an impending diagnosis, only for the nodule to be scar tissue.

“As a medical student in Germany and as a resident in the U.K., I was taught to hone my physical examination skills and to make a diagnosis based on symptoms and history,” Barta said. “In the U.S., there is maybe too much of a reliance on tests and the skill of physical examination is under emphasized.”

While America’s medical culture caused Barta to change how he practices medicine, there are some differences he appreciates, such as the latitude to recommend treatments he feels will give his patients the best chance of survival.

Richard Greenberg, a surgical oncologist at Fox Chase, has seen cancer care in Russia evolve over the course of nearly 20 years and many trips.

Much of the cancer care in Russia is centralized, with patients traveling hundreds of miles to stay in large cancer centers in cities like Moscow for the duration of their treatments. New technologies lag behind the U.S. but have made great advances in recent years, Greenberg said.

DANIELA DI MARCANTONIO

POSTDOCTORAL FELLOW

BLOOD CELL DEVELOPMENT AND FUNCTION PROGRAM AT FOX CHASE



The U.S. is considered the best place to do scientific research and I wanted to understand what sets it apart.

I came on a one-year scholarship while completing my PhD and was asked to stay to complete my postdoctoral fellowship. The language barrier was so hard at first and I appreciated how patient everyone was with me. After a while, communication became easier.

Adapting to a different academic system was also challenging. The grant system in the United States is different from Italy – it is more competitive but more clear – and in general, there are more opportunities for people to advance their careers.

I’m not sure if I want to stay or go back to Italy. For my personal life, I would like to go home. My family is very supportive, and they understand the valuable experience I am getting here. From a career perspective, I prefer the American system. But there are other possibilities. I may be able to work in other European countries, like Germany, and be closer to home while still doing the research I want.

VIVEK MODI

POSTDOCTORAL FELLOW

MOLECULAR THERAPEUTICS PROGRAM AT FOX CHASE

I first met Roland Dunbrack when he visited India. I was in the last year of my PhD program and I knew I wanted to do my postdoctoral fellowship in the United States, which is home to universities and hospitals that many in academia regard as the best places in the world to do science.

I knew of Roland's international reputation as a computational biologist and I knew working in his lab would give me experience in the field that I couldn't get anywhere else. From a personal standpoint, I knew I would enjoy traveling and seeing the world.

One of the best parts of living here is becoming immersed in the cosmopolitan culture the U.S. offers and meeting people who have come from different countries. I have met people from many different backgrounds, and we've gotten to know each other and understand each other's opinions.

When I first arrived in the U.S. three and a half years ago, I felt sure I would return to India to start my career. Now, I'm not so sure. The science and the career I could have here make me contemplate staying in the U.S. But there are family reasons to go back. And while I've been very happy during my time here, I've always felt a sense of being uprooted.



"Screening is something new to them," he said. But where clinical practice is concerned, he said, "They really do everything that we do and they do it well."

Geography can influence treatment options in this kind of centralized system. In more remote areas physicians emphasize active surveillance to monitor patients with prostate cancer, Greenberg said.

With active surveillance, doctors may recommend postponing therapy when low-risk cancer is confined to the prostate, and can be closely monitored with PSA tests, physical exams, and serial biopsies. Patients receive treatment if the cancer shows signs of spreading or growing. In areas where patients would have to travel hundreds of miles from their home to receive treatment, this practice has caught the attention of providers.

"In Minsk, they were very interested in screening and early diagnosis," he said. "They're very in tune with active surveillance. They have to rely on that because many of their people live so far away."

Diversity of Thought

With such great differences in cancer care, harnessing the diversity of scientists from around the world is important in furthering the research done at institutions like Fox Chase, said Glenn Rall, director of the postdoctoral program at Fox Chase.

"We are a stronger, better institution because of the

diversity of the types of people on the teams here, and that diversity includes age, race, orientation, and socio-economic status," he said. "Your own experience informs how you solve problems and science is nothing if not solving problems."

Over the decades, scientists collaborating across international borders have made historic discoveries.

In 1967, Fox Chase's Baruch Blumberg discovered the Hepatitis B virus in the blood of an Australian aboriginal. On trips to Africa and Asia, Blumberg and his team amassed evidence showing the link between primary liver cancer and Hepatitis B, leading to the development of a vaccine.

In the 1970s, Avram Hershko and Aaron Ciechanover, visiting scientists from the Technion-Israel Institute of Technology in Haifa, Israel, worked in the lab of Irwin A. "Ernie" Rose at Fox Chase. Decades later in 2004, the trio won the Nobel Prize for their research on the regulatory protein ubiquitin.

More recently, the immunotherapy drug pembrolizumab came about from the efforts of Massachusetts-based scientist Gregory Craven and Dutch scientists Hans van Eenenaaam and John Dulas. The drug has been remarkably effective for many patients, including Mu Sang. After two years in the clinical trial at Fox Chase that tested the combination of pembrolizumab and the chemotherapy drug Axitinib, his body grew stronger as his tumors disappeared.

In 2017, he completed his last infusion before switching to pills to control the cancer. After six months of observation, he will be able to return to his home and his family for good.

He was dying.

Now, he is living. ♦

Cross-Cultural Collaborations:

Navigating International Medicine

Exploring famous cities, visiting celebrated landmarks, and making memories to last a lifetime are the hallmarks of tourism. But for millions of “medical tourists” crossing borders for healthcare, there are PET scans instead of pyramids, and the exam room replaces the Eiffel Tower.

Patients Beyond Borders, a company that publishes an annual guide to medical travel, estimated that in 2016, 14 million people traveled internationally for medical care, including 1.4 million Americans. The company estimates that the market for medical tourism is worth up to \$72 billion, and it continues to grow.

To market the capabilities of the Philadelphia area to attract patients seeking care from around the world, several Philadelphia hospitals – including Fox Chase Cancer Center and Temple University Hospital – founded Philadelphia International Medicine (PIM) in the late-1990s. PIM was created by the hospitals to market Philadelphia as a destination for healthcare services and organize the infrastructure to manage the complexities of coordinating care for international patients, said Alan Howald, associate vice president of business and network development for Temple University Health System.

At Fox Chase, managing international patient care and identifying unique opportunities for global collaborations is done through Fox Chase International.

Non-resident international patients can request a remote second opinion or receive complete cancer treatment at Fox Chase. Participation in clinical trials is frequently one of the main reasons why international patients seek care at centers like Fox Chase, said Johana Vanegas, director of international patient access at Fox Chase.

Fox Chase International staff serves as a liaison between the international patients and the administrative, clinical, and financial teams at Fox Chase.

Vanegas is on call along with PIM to assist patients with any kind of emergencies they may experience during their stay.

“We try to make a difficult situation easier by doing anything we can to help,” she said.

Fox Chase has long played a role in developing global relationships and helping advance cancer care abroad.

“Cancer is our enemy, not people,” said Mark Sobczak, a radiation oncologist at Fox Chase who has worked internationally. “Our concern for cancer care transcends borders.”

Exporting Success

Paul Engstrom, a medical oncologist at Fox Chase, has been actively involved in smoking cessation efforts around the globe. For three years, he participated in a joint research project that studied smokers in Russia that was partially funded by the National Institutes of Health.



Engstrom was instrumental in encouraging Russia to adopt some of the most stringent non-smoking policies in the world. Smoking is banned in airports, restaurants, airplanes, and other public spaces. Cigarette advertisements around Moscow were also taken down.

“We showed the cause and effect of smoking and how it relates to cancer, emphysema, and lung disease,” Engstrom said. “While rates of smoking were high and so were lung cancer cases, people didn’t see smoking as the problem.”

Over the years, there has been greater collaboration internationally and new treatments, such as clinical trials, are developed with an international perspective in order to treat a wider patient population, Engstrom said.

“It’s important that treatments have an international perspective,” he said. “It’s not appropriate to have a treatment at only one institution. Effective treatments should be disseminated widely. The opportunities for collaboration go across countries and borders.”

Among Fox Chase’s federally funded global activities are tobacco prevention, medical diplomacy, and scientific research, Howald said.

“As an NCI-designated cancer center, we have a responsibility to educate the public,” he said. “We have an identity as a global health partner and that allows us to fulfill our mission.”

Kurt Schwinghammer, chief business development officer, and David Weinberg, chief medical officer, of Fox Chase International, respectively are tasked with developing international patient care and identifying unique projects around the globe.

Weinberg and Schwinghammer strive to build Fox Chase’s reputation globally and improve the international scientific community as a whole.

Among several projects, they are developing biosample repositories in two cities in India and China, to provide a reliable source of tumor, blood, and normal tissue samples to researchers in those countries.

“We’re working to build repositories abroad that are of an international standard so that researchers are confident in the sample quality,” Schwinghammer said.”

Additionally, the department consults with hospitals abroad to help them determine what size hospital is needed, staffing ratios, disease burden, and equipment needs.

“We don’t claim to have all the answers or know how specific projects should unfold,” Weinberg said. “We don’t believe the solution is transporting Fox Chase Cancer Center to China or to India. Everyone involved needs to recognize the prolific differences between health care delivery in the U.S. and in most of the rest of the world. If you don’t recognize those differences you’re likely to fail.”

Building and maintaining relationships around the world can be a challenge. In addition to being mindful of cultural differences, there are political complications – such as sudden changes in government positions – to contend with.

“It doesn’t operate in a vacuum,” Weinberg said. “It’s magnified because the changes happen faster and can be linked to events and trends that are far above health care.”

The pair has learned to have multiple projects in the works and take their time identifying the right opportunities.

JOAN FONT-BURGADA

ASSISTANT PROFESSOR

CANCER BIOLOGY PROGRAM AT FOX CHASE



In Spain 25 years ago, there were more limited opportunities in science. It was one of the reasons that a postdoctoral fellowship abroad was always on my mind.

Now, students can stay in the country. It’s good to get out, get other experiences, and it’s highly valued. But it’s possible to stay and have a research career, while that used to be almost impossible.

When I arrived in the U.S. I was caught off guard by the dramatic shift in lifestyle – namely the inability to walk everywhere, like in Europe. I thought Spain and the U.S. were much more similar than they really are.

Despite differences in culture and lifestyle, I found solace in the lab, where the science remained the same and colleagues embraced my different experiences. Diversity of backgrounds helps to open the mind and influences how we work together to accommodate different views.

Funding for science is quite different in the U.S. as well. In the U.S., grant money goes to covering salaries as well as research, while in Spain, it is dedicated mainly to hard research costs. In Spain, scientists can get more done with fewer grants.



“Countries are acknowledging the need for improvements in health care for their citizens.

In some cases, a rising middle class is causing increased demand that the government is trying to figure out how to meet.”

— DAVID WEINBERG
CHIEF MEDICAL OFFICER AT
FOX CHASE INTERNATIONAL

“We have many hooks in the water at any given time,” Schwinghammer said. “When one thing doesn’t pan out, we have other potential opportunities. Culturally, as Westerners, we like to get things done today but that’s not how it works internationally.”

Weinberg said he likes the variety of approaches they get to develop for different situations.

“Countries are acknowledging the need for improvements in health care for their citizens,” he said. “In some cases, a rising middle class is causing increased demand that the government is trying to figure out how to meet.”

The Growth of Globalism

Rapid advances in communication technology have accelerated international collaboration among scientists and healthcare workers, but cross-border cooperation dates back to well before the Internet allowed for instant connections.

Decades ago, Alton Sutnick developed Fox Chase Cancer Center’s first cancer control program. When the National Cancer Institute decided to develop its national cancer control program, Sutnick was asked to assist. He was later tapped by the World Health Organization to develop a cancer control program for the government of India.

Over the course of his career at Fox Chase and elsewhere, Sutnick gradually built connections in Europe, Asia, and South America. In Moldova, he helped expand access to family medicine, incorporating it into medical education and establishing a residency in family medicine based on U.S. models. As a result, family medicine centers began to emerge around the country, allowing citizens to access the health care system.

“I like to look at ways to help the most people,” Sutnick said. “When developing family medicine in Moldova, we were able to change the system. When the system changes, it helps everyone. We were able to help 5 million people with one project.”

After retiring in 2006, Sutnick started consulting on international medical education, working with universities, ministries of health, and ministries of education around the world. His path led him back to an ongoing relationship with Fox Chase, first through his connections in Russia, and then by creating a relationship with Ben-Gurion University in Israel. This relationship has flourished, yielding many productive collaborations, joint publications, and research grants.

Glenn Rall, associate chief academic officer at Fox Chase, and Jacob Gopas, a researcher at Ben-Gurion University, have developed a friendship that transcends their shared work and the miles between them. The duo plan Skype calls that work with the seven-hour time difference, and spend just as much time talking about their families as they do their science, and shared projects.

“Beyond what benefits it brings to the scientific perspective, it makes the world feel more like your neighborhood, and it has personalized the internationalism of science,” Rall said. “Jacob and his family are part of my orbit now and I care about what happens to them. When I hear bad news about Israel, I wonder about Jacob and reach out to him to make sure he’s okay.”

Since cancer control is complex and multi-faceted, global collaborations take many different shapes, and lead in all directions.

In addition to his tobacco control work in Russia, Engstrom has lectured in China. Richard Greenberg, a surgical oncologist at Fox Chase, has traveled to Russia several times to operate on patients and lecture on urology. In July, three other Fox Chase clinicians – radiation oncologist Sobczak, medical oncologist Igor Astsaturov, and surgical oncologist Jeffrey Farma, traveled to China to give lectures, see patients, and consult with Chinese physicians on some of their most complicated cases.

Working with physicians around the world is one of the greatest ways to affect change, Farma said, because they in turn can educate their network of patients.

“I think it’s great for the institution and for improving cancer care around the world,” Farma said. “It’s really important to have a global perspective in cancer care. To participate in these opportunities is very good for Fox Chase and individually as physicians to broaden our reach.”

These partnerships help develop relationships between physicians separated by thousands of miles but united by a common goal.

“We were able to connect, not just white coat to white coat, but person to person,” Sobczak said. “Here, we are allies. ♦

DNA, Disposition, and Disparities:

How Researchers Go the Distance
to Understand the Difference

Cancer is a small word but one with hundreds of meanings. It is not a singular disease, but rather a multitude of different ones with just as many causes. Some scientists now focus on tumors in terms of molecular make-up, rather than the part of the body where they form, implying there are many more subtypes of cancer, possibly with different causes and treatments.

The many diseases called cancer affect people differently, depending on individual biology, ethnicity, lifestyle, and geography. Some groups have much higher risk for certain cancers, while others have natural resistance to some first line therapies. To truly control cancer, some researchers focus on these and other differences, leveraging them in approaches to prevention, early detection, and treatment.

“Understanding the biological significance of these differences is important to better understand who is at risk and for what,” said Camille Ragin, associate professor in the Cancer Prevention and Control Program at Fox Chase Cancer Center.

In 2006 Ragin, a Caribbean immigrant, founded the African-Caribbean Cancer Consortium (AC3), which furthers the study of genetic, lifestyle, and environmental cancer risk. The consortium now links researchers in 16

Caribbean countries, five African countries, and across the United States.

“As a young investigator trying to identify my niche, it struck me that there was not enough research into disparities,” she said. “The number of African Americans included in studies was low. How can we address disparities if we don’t have proper representation? Cancer mortality rates are devastating in the Caribbean and Africa compared to the United States. The purpose of the AC3 is to drive collaboration in populations of African ancestry.”

In one of its most impactful successes, AC3 was instrumental in making the HPV vaccine widely available across the Bahamas.

“AC3 is very important because it’s one hand helping the other to improve the community,” Ragin said. “We have to help each other to be successful. Helping other countries helps us to be successful.”

Now, in the largest undertaking yet, Ragin has been awarded a grant by the National Institutes of Health to create a center of research excellence at the University of the West Indies, a regional university with its main campus in Kingston, Jamaica. Fox Chase will serve as the U.S. institution in the partnership.

“Together, cancer and other non-communicable diseases are the leading cause of death in the Caribbean region,” she said. “Our ultimate goals are to stimulate and increase



collaboration aimed at addressing these largely preventable diseases in the Caribbean, where their toll is disproportionately high.”

Sorting Through Differences

In her role as Associate Dean for Health Disparities at the Lewis Katz School of Medicine and Temple University Health System and as leader of the Center for Asian Health at Temple University, Grace Ma studies differences in how diseases such as cancer affect immigrant populations.

“Some populations have a higher mortality of certain cancers,” Ma said. “Some of that is genetic, environmental, and some of it is lifestyle or could be a combination of all that.”

One of the greatest disparities affecting the Asian immigrant population in America is in liver cancer, where the rate of diagnosis is between 7 and 15 percent, Ma said, compared to less than 1 percent for the general population.

“In first-generation Asian Americans, they are born in Asian countries where hepatitis B is endemic,” Ma said. “Similarly, many first-generation African Americans are coming from countries where hepatitis B is pervasive.”

Ma began to look at obstacles that immigrant and underserved minority populations face – including language barriers and insurance issues – to identify the best culturally relevant approaches to expanding proven prevention and health care practices.

“In the immigrant population, seeking health care may never be the priority,” she said. “They may be focused on making ends meet or working multiple jobs and getting check-ups may not be high on the list.”

In an effort to break through some of the barriers to health care, Ma partnered with more than 70 health facilities and practices across the northeastern U.S. that serve large immigrant and minority populations. They identify opportunities to make health care more accessible, such as extending hours, employing more bilingual providers, having onsite translators, expanding patient navigation services, and developing medical service literature in multiple languages.

Ma and her team received National Cancer Institute funding to increase cancer screenings for cervical, colorectal, and hepatitis B-related cancers. Working with Asian community centers, they took advantage of social settings to promote awareness of cancer risk and opportunities for early detection and follow up care. The model proved successful and Ma and her collaborators are in the process of replicating it in African-American and Latino communities.

“We have to work at multiple levels to tackle these barriers by integrating community and clinical systems,” Ma said. “Engaging these populations in their active participation in cancer prevention and clinical care is essential in achieving better health outcomes.”

Another focus of the Center for Asian Health is to train the next generation of researchers who have an interest

EDNA CUKIERMAN

ASSOCIATE PROFESSOR

CANCER BIOLOGY PROGRAM AT FOX CHASE




Though I’m from Mexico, I went to college and grad school in Israel. Knowing only some biblical Hebrew, I was faced immediately with learning conversational Hebrew.

In many languages, the scientific words translate, but in Hebrew they have different root words. I took a full year of Hebrew to prepare for classes and even then, the first semester was difficult. I needed to take a pre-college course to be on a level playing field with my fellow students, who were more advanced in math and physics than students in Mexico.

Those experiences had a significant influence on the scientist I have become. I was afraid to ask questions because my pronunciation was not great and I sometimes mixed up words – and I still do. I used to be less daring, but I learned to laugh at myself. I learned to ask questions and get out of my shell. This has served me well through my career, and I use the same approach now when coping with my weaknesses.

I always knew I wanted to work in academia and lead my own lab, and in order to achieve that goal in Israel, I needed to complete a postdoctoral fellowship abroad. By then I was married with two children, and the decision to uproot my

family weighed heavily, but the opportunity was too great to pass up.



“Understanding the biological significance of these differences is important to better understand who is at risk and for what.”

— CAMILLE RAGIN

ASSOCIATE PROFESSOR IN THE CANCER PREVENTION AND CONTROL PROGRAM AT FOX CHASE

in reducing cancer disparities in clinical, behavioral, and basic research.

“We’re looking for the most effective and culturally appropriate ways to enroll underrepresented minorities into clinical trials, which will hopefully get back to benefiting these populations,” Ma said. “Healthcare providers need to be more aware of disparities. Each population has a certain specific type of disease disparity.”

Among Asian Americans, breast cancer is the fastest growing cancer, Ma said. Much of the increase can be attributed to Westernization stemming from moving to the U.S., including changes in diet, lifestyle, and reproductive factors.

Carolyn Fang, co-leader and professor of the Cancer Prevention and Control program at Fox Chase and a member of Temple’s Center for Asian Health, has studied how Chinese women’s risk for breast cancer can change after moving to the United States.

“Generally speaking, breast cancer rates are lower in Chinese women than in American women, but these rates rise following migration to the U.S.,” she said.

The predominant thinking, Fang said, is the change in risk is connected to lifestyle factors. Immigrant women may experience dietary changes after moving to a new country, or they may adopt a more sedentary lifestyle. Additionally, women in the U.S. tend to delay child bearing compared to women in rural China who were traditionally more likely to have children at an earlier age.

However, Fang found that dietary changes were not as dramatic as expected, especially if the participants lived in areas like Chinatown. In these neighborhoods, many women were able to retain their traditional Chinese diets, even after seven to 10 years in the United States.

Fang began to explore the psychosocial environment to see how stress and isolation following a move across the globe could impact cancer risk.

“Not speaking the language, leaving family behind, all of that can be very isolating and very stressful,” Fang said. “We looked at whether women struggled with acculturation and

found that those women who reported higher levels of acculturative stress had higher levels of inflammatory markers in their blood. Those inflammatory markers have been associated with increased risk for certain types of cancers.”

While the risk for cancers associated with the Western lifestyle, such as breast and prostate cancers, may increase following migration, Fang said the risk for cancers associated with human papilloma virus and hepatitis B may decrease, because the U.S. emphasizes screening, prevention, and vaccination.

“In some cultures, you only go to the doctor when you’re sick. You only go to seek treatment, not prevention,” Fang said. “Screening in the absence of symptoms has not been widely endorsed in some cultures.”

China trails the U.S. in mammography utilization, largely due to variability in available resources and a lack of national screening guidelines.

Generational and cultural differences – especially relating to the acceptance of sexuality – can also play a role in reducing screening in Asian populations. Getting screened for cervical cancer or having a gynecological exam as a young, single woman can be viewed as a sign of promiscuity, Fang said.

“There are still misperceptions and a lack of knowledge,” she said. “There’s a bit of a stigma still and some are ashamed. If they don’t think about it and sweep it under the rug, then they can pretend it’s not real. Others are superstitious and believe that they developed cancer as a punishment for a prior misdeed.”

In addition to migration, researchers are studying how genetics play a role in cancer risk and receptivity to cancer treatments.

In January 2017, Ragin and her team found a link between African ancestry and poor survival rates in patients with head and neck squamous cell cancer (HNSCC). They discovered people with the African allele at a certain genetic position have poor survival when treated with platinum-based chemotherapy and radiation therapy, both of which are first-line treatments for HNSCC.

Within the American black population, there is a very large subset of people who migrated to the U.S., Ragin said. While different black populations share common factors, there are distinct differences in culture and diet, which impacts health.

Currently, Ragin is enrolling people from the three main subgroups of the American black population - U.S.-born, Caribbean immigrants, and African immigrants - to study the extent to which diversity matters. The team already knows that differences in screening rates exist – the African immigrant group in particular is lagging behind, with colorectal screening standing at less than 50 percent – and the next step is to determine why.

“If we are going to truly address racial disparities in the U.S. and improve screening rates, we have to recognize the diversity that exists,” Ragin said. “This diversity may address some of the failures.” ♦

Found in Translation:

Breaking Through the Language Barrier

The words stopped Roman Kontorer cold. Ракпочек. Kidney cancer. Though he knew some English, discussing his cancer diagnosis and the details of his treatment was beyond his level of fluency. He wanted the doctor who treated him to be someone he could understand.

Emigrating from Russia in his 50s, Kontorer settled in Philadelphia, home to a large Russian-speaking community. He asked friends and his primary care physician where to go. Both sent him to Alexander Kutikov, chief of the division of urology and urologic oncology at Fox Chase Cancer Center.

In addition to being a skilled surgeon, Kutikov is an immigrant himself, having moved to the U.S. from Russia at the age of 11. Between 10 and 15 percent of his patients are native Russian speakers, and Kutikov speaks with them primarily in their native language, helping to assuage their fears.

“It’s a very scary time and there’s lots of nuances to explain,” he said. “People are relieved when I can speak to them in Russian. Medicine is complex and it’s nice to be able to bridge that gap. I can help them beyond the medicine and alleviate their concerns.”

For patients like Kontorer, being able to speak directly to doctors without needing an interpreter is a relief.

“Speaking to the doctor in your mother tongue is a completely different thing,” he said. “Dr. Kutikov is a great doctor and highly respected in the Russian-speaking

community. I didn’t have any fear whatsoever after we communicated.”

About 10 percent of Fox Chase clinicians are certified to treat patients in languages other than English, including Russian, German, Spanish, Greek, Hebrew, Mandarin, and Vietnamese. In order to treat patients in other languages, doctors must pass a language proficiency test, or must have trained in their country of origin. The exam asks a series of questions that escalate in complexity, which assures the health system a doctor is qualified to communicate with patients in that language, said Jessica Ruiz-Lebrón, manager of interpretation services for Temple University Health System.

“It’s the ideal situation because then they can communicate directly,” she said.

As a urologist, Kutikov may treat erectile dysfunction or incontinence, and he knows it can be difficult for patients to discuss such personal matters in front of others.

“Language is a huge barrier and can be very challenging,” he said. “Not having that language barrier is incredibly helpful. It’s more personal.”

In addition to breaking the language barrier, clinicians who can treat patients in their native language are often able to help navigate cultural barriers that may interfere with medical care.

“Alternative medicine such as herbal remedies are very much pursued in the Russian community,” Kutikov said. “Navigating that is part of their care.”

The medical interpreters provided through the health system also serve as cultural brokers, said Ruiz-Lebrón.



“We sometimes have some insight in regards to the culture and we’re able to shed some light on that particular interaction,” she said. “If the interpreter is well-versed, they can communicate wives tales or other cultural beliefs to the provider.”

Bridging the Language Gap

Interpretation and translation services are readily available throughout Temple University Health System, including at Fox Chase.

Spanish is the most requested language across the health system, and Temple employs nine full-time Spanish medical interpreters. At locations without a full-time interpreter, like Fox Chase, the health system relies on language phones – with interpreters available for over 200 languages – and approved vendor interpreters. The system also uses dual-role interpreters, Temple University Health System employees in other jobs who have taken an intensive, 40-hour training course to serve as interpreters.

“We really discourage patients from using family and friends to interpret for them because of confidentiality, competence, and conflict of interest,” Ruiz-Lebrón said.

By allowing friends or family members to interpret for them, the patient’s privacy can easily be breached, she said. Friends and family may not be familiar with medical terminology and may mispronounce terms or omit them altogether, which alters the message and leaves the patient in the vulnerable state of being ill-equipped to make informed medical decisions.

“People are relieved when I speak to them in Russian. Medicine is complex and it’s nice to be able to bridge that gap.”

— ALEXANDER KUTIKOV
CHIEF OF THE DIVISION OF UROLOGY AND
UROLOGIC ONCOLOGY AT FOX CHASE

Translation services ensure that patients receive discharge instructions, test results, consent forms, and even patient education resources, in their preferred language. Both translation and interpretation services are available to all patients at no charge.

Though he knew English thanks to a naval career that took him around the world, moving to the United States from Georgia in 1998 and navigating a new and unfamiliar culture proved to be overwhelming for Yuri Fayvishenko. To cope, he began smoking more, and soon, he was smoking a pack and a half of cigarettes a day.

At 61, he was devastated when he learned he had bladder cancer. An avid swimmer, he was distraught when doctors told him he would need an external pouch after his surgery to remove cancer.

SANJEEVANI ARORA

ASSISTANT RESEARCH PROFESSOR
CANCER PREVENTION AND CONTROL PROGRAM AT FOX CHASE



In India, I grew up surrounded by cultural and religious diversity and I learned from an early age the value of different opinions and perspectives. Moving to the U.S. to pursue doctoral studies, I was happy to see how welcoming it is and how the country really embraces and celebrates that diversity.

In science, having diversity and gender equality makes it possible to discover ideas you may not have found otherwise. When we work together we can learn so much from each other.

Before starting the coursework towards a doctoral degree, I didn’t think too much about anything other than the science. I soon learned the importance of the collaborative environment of the lab. In my program, I wasn’t committed to a specific lab and was offered rotations in different labs and projects before deciding on joining a lab for my doctoral thesis. I learned to ask the questions that were important – lab fit, enthusiasm for the project, lab work ethic and so on. I also had the freedom to enroll in inter-disciplinary courses giving me the ability to explore areas I wasn’t able to explore before. It’s empowering to choose.

Like Kontorer, Fayvishenko knew of Kutikov’s reputation, and though he speaks English, he was grateful to be able to converse with his doctor in both English and Russian.

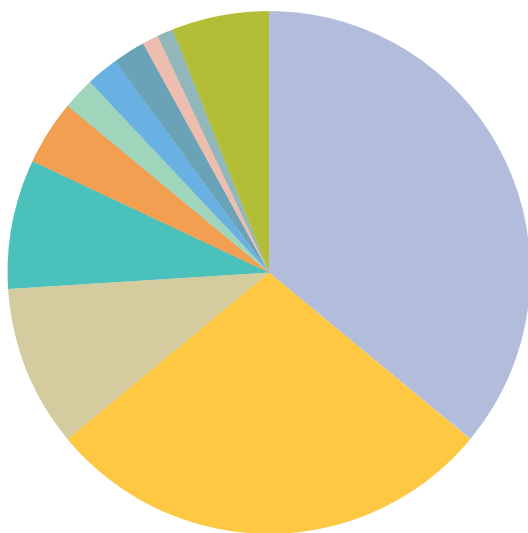
“The many, many Russians who know Dr. Kutikov, are very happy with him and I am too,” Fayvishenko said.

After his diagnosis, Fayvishenko quit smoking on Kutikov’s advice, and has not smoked in six years. He credits Kutikov not only with saving his life but helping him to regain his quality of life.

“He took me from out of the casket,” he said. “Everything is like it was before.” ♦

TOP 10 LANGUAGES (MINUTES)

- 6% Other (16 languages) - 456 minutes
- 1% Cambodian - 80 minutes
- 1% Ukrainian - 85 minutes
- 2% Haitian Creole - 171 minutes
- 2% Arabic - 184 minutes
- 2% Vietnamese - 193 minutes
- 4% Korean - 294 minutes
- 8% Mandarin - 654 minutes
- 9% Cantonese - 753 minutes
- 28% Russian - 2,201 minutes
- 36% Spanish - 2,869 minutes



Summary by Languages: 7/1/2016 - 6/30/2017, Fox Chase Cancer Center

A Foundation in Faith

As culture and spirituality are often intertwined, Fox Chase has two chaplains who help navigate culture and faith as they relate to patient care.

“It is often helpful to be mindful of particular customs patients have and a general knowledge of their background, but there can be so many variations within a religion and within a culture,” said staff chaplain Alex Hud. “We ask if there are practices that are important to them and how we can help them. All cultures respond to caring attitudes.

Our care is personally tailored, and so we never go in with an agenda and assumptions. A patient will remember us by how we made them feel. The care is measured by how much we care, not by how much we know.”

Primarily, the patients at Fox Chase are Christian, Jewish, and Muslim, Hud said. A booklet of prayers, which includes prayers of numerous faith traditions and was written by staff chaplain Barbara Klimowicz, is available in English, Spanish, Russian, Arabic, Polish, and traditional Chinese.

Klimowicz moved to the United States from Poland when she was 9 and takes a special interest in working with immigrant patients.

“In difficult situations, I try to align myself with the patient and make sure they get the care they need and deserve,” she said. “Sometimes there’s mistrust and as an immigrant I understand that. I want to gain their trust so when difficult moments come, we can work together for the interest of the patient.”

To succeed, Klimowicz knows providers must take patients’ beliefs into account when recommending a course of treatment.

“I show them their voice matters and I explain their concerns to their doctors,” Klimowicz said. “They feel comforted knowing their feelings are valid. I believe we can solve the most difficult problems with mutual trust.”

The chaplains accommodate the needs of patients during their time at Fox Chase, including arranging to have outside clergy members come in, Hud said. Above all, Klimowicz and Hud listen to their patients to give them what they need.

“The common need across all cultures is the desire to know that despite their illness, their life still has meaning and purpose, and we validate that,” Hud said. “Their self-worth is not dependent on what they do but who they are. They are a person worthy of self-respect and dignity.”

CHANGING COURSE

One Family's Journey from Pakistan to Philadelphia

BY RACHEL D'ASCENDIS

In Mahmood Saeed's experience, necessity truly does breed invention. He's been in the U.S. for nearly three years and while he has come to love his new city of Philadelphia, he will always miss his home in Pakistan.

"The thing I miss the most, aside from my family, is the food," Mahmood said. "After months of craving my favorite Pakistani dishes I decided to make them myself. The first time I even so much as boiled an egg was when I moved to the U.S."

When his cancer appeared suddenly in 2003, Mahmood was golfing with friends on a sunny day. Shooting pain in his abdomen suddenly overwhelmed him. He woke up at Shaukat Khanum Memorial Cancer Hospital and Research Centre, the largest cancer center in Pakistan.

Doctors there diagnosed him with renal cell carcinoma and sent him straight into surgery to remove his kidney.

"The care I received from the doctors at Shaukat Khanum was excellent and definitely on par with clinicians in the U.S.," Mahmood said.

Years passed and Mahmood put his illness behind him. However, in March 2015, he again felt searing abdominal pain and this time was diagnosed with necrotizing pancreatitis. During surgery doctors found that stage 4 renal cell carcinoma had spread throughout his abdomen.

Mahmood had a decision to make.

"When I had surgery the first time it was an emergency. We had no time to weigh options or research the best treatment," Mahmood said. "This second time, however, my wife and I were able to make an informed decision."

Though Mahmood and his wife, Zahra, lived in Pakistan they maintained a home in Philadelphia where Zahra had family. With his diagnosis, they knew they needed to move.

baseline care free of charge.

"There is no hierarchy when it comes to cancer healthcare at Shaukat Khanam hospital," said Zahra, "It doesn't matter if you are the prime minister or a person without a home, everyone is treated exactly the same."

Due to a lack of resources in Pakistan and because private health insurance is not widely available, patients with advanced cancers must look elsewhere for treatment.

The Saeeds relocated to

"If I wasn't willing to adapt to change, to move to the U.S., to seek out experimental treatment, I might not be here today."

— MAHMOOD SAEED, PATIENT AT FOX CHASE

"If I could have stayed in Pakistan I would have," Mahmood said. "It's my home and the care I received really was top notch. The issue with treatment in Pakistan begins when your cancer is no longer treatable with standard procedures. There simply aren't the funds to provide long term or experimental treatment to patients."

In Pakistan, there are private hospitals, but they are very expensive, as the patient must pay all costs out of pocket. At charity hospitals, like the one where Mahmood was treated, patients receive

Philadelphia, and before their plane landed, Zahra had already scheduled appointments at two hospitals. Ultimately they decided on Fox Chase Cancer Center, following recommendations from family members.

Mahmood met with Sanjay Reddy, a surgical oncologist at Fox Chase.

"I'm so fortunate to have met Dr. Reddy. He refuses to give up, and for me and Zahra, giving up wasn't an option, although it had been presented to us many times," he said.



Mahmood Saeed

After Mahmood's recurrence, doctors in Pakistan were blunt, saying there was nothing more they could do, and encouraging them to seek help elsewhere.

"Although it was hard to hear at the time, I now appreciate the honesty of the doctors," Zahra said. "They knew they couldn't provide the care that Mahmood needed and had the integrity to make sure we knew that."

After three months of treatment, scans showed that one tumor was completely gone and the others had shrunk in half. Mahmood's health had completely changed.

Mahmood appreciates his medical team's commitment to cutting edge treatments.

"When something doesn't work or I don't respond well, they keep pushing onward with the ultimate goal of seeing my cancer disappear," he said. "My oncologist, Dr. Daniel Geynisman, is a constant pillar of support and strength for us, patiently answering all our questions and tirelessly seeking new avenues. He is simply brilliant."

This journey has not been an easy one. Like learning to prepare his favorite Pakistani dishes, Mahmood has learned to adapt.

"If I wasn't willing to adapt to change, to move to the U.S., to seek out experimental treatment, I might not be here today," said Mahmood. "Cancer is a story of unexpected transformation of the inner self. Fortunately instead of wandering in a jungle of uncertainties and asking, 'why me,' I found peace in strengthening my faith in God."

Mahmood said he follows the advice of the poet Rumi, who said that if you want to strengthen your faith you need to soften on the inside. For rock solid faith, your heart needs to be as soft as a feather.

A SISTER'S LEGACY CONTINUED

The bond between sisters is hard to break. So when a disease like breast cancer strikes one, the surviving sister fights with all her might so that no one else has to suffer as her sister did.

That bond is how the Eileen Stein Jacoby Fund for Breast Cancer Research came to be. After a three-year struggle with breast cancer, Eileen Stein Jacoby, who was 45, died in 1999, leaving behind her young children and husband, as well as siblings, parents, and many friends. In 2000, Eileen's sister Cheryl and her husband Scott Herman, teamed up with her parents, Harold and Pauline Stein, on a mission to end the disease. Along with an army of volunteers, they established the fund.

In the 17 years since they began, the family has raised more than \$2 million, all of which supports breast cancer research at Fox Chase Cancer Center.

"Because we are a volunteer-run operation with no overhead expenses, I'm proud to share that 100 percent of the money we raise supports research," said Cheryl, who likes to teach young people the importance of philanthropy. "Our volunteers range in age from 10 to 87, meaning anyone can make a difference – no matter their age."

Xiaowei Chen is one of several Fox Chase researchers to benefit from their efforts. One of Chen's current research projects focuses on identifying new approaches to determine which cases of ductal

carcinoma in situ (DCIS) will become invasive ductal carcinoma, the disease that claimed Eileen's life. His goal is to establish a new method to identify risk assessment markers for DCIS and initiate new strategies for early detection, diagnosis, and treatment of low and high-risk DCIS lesions with greater precision, ultimately leading to improved personalized care.

"We have seen actual progress being made by both the early career and more experienced researchers

at Fox Chase, needed funding for a clinical trial to treat metastatic triple-negative breast cancer using an immunotherapy drug (Pembrolizumab) combined with standard chemotherapy. Although the trial was funded by a grant from the pharmaceutical company Merck, he needed funding for patients' biopsies.

The Eileen Stein Jacoby Fund stepped in to help, hosting a comedy show last year with the goal of funding Dr. Obeid's project.

"To honor my sister's memory,

"While equipment is important, our mission is to support what we believe is the most valuable and important part of cancer research—new researchers."

— CHERYL HERMAN, FOUNDER OF THE EILEEN STEIN JACOBY FUND

we have supported over the years," Cheryl said. "While equipment is important, our mission is to support what we believe is the most valuable and important part of cancer research—new researchers."

Cheryl's team raises funds through a variety of events, including an annual bowling benefit, a golf outing, shopping events, holiday gift-wrapping, sporting event trips, apparel sales, trips to see Broadway shows, events at schools and businesses, concerts, and poker tournaments.

Recently, Cheryl learned that Elias Obeid, a physician researcher

we look for opportunities to make a direct impact on the lives of these patients. Dr. Obeid's trial allows us to execute her vision and give hope to these women," said Cheryl, who lost both of her parents in 2017. "It's been a difficult year for us, but we will continue to pursue our mission."

The foundation's efforts are greatly appreciated by researchers and physicians.

"It is inspirational to watch the cancer community rally to make a difference for our patients," Obeid said. "With Cheryl Herman's determination, we are saving lives."



Cheryl Herman

FOX CHASE CANCER CENTER REMEMBERS

ROBERT L. COMIS (1946-2017)

Robert L. Comis, a long-time faculty member and leader at Fox Chase Cancer Center, passed away May 10, 2017.

Comis worked at Fox Chase during an exciting time of growth that led to NCI designation. His career included service as the chairman of medical oncology, medical director, and senior vice president for medical science.

“His contribution to the center was to be the first director to emphasize and encourage the staff to participate in clinical research and the use of new drugs



Robert L. Comis

to treat cancer in new and exciting ways,” said Paul F. Engstrom, MD, Special Advisor to the President and Samuel M.V. Hamilton Chair

in Cancer Prevention. “He was a very bright man who had deep experience in using and setting up clinical trials to identify the best treatments for cancer.”

In memorializing Comis, the Philadelphia Inquirer called him, “a brilliant physician and noted researcher who pushed hard for cancer clinical trials to combat the disease but never lost sight of the patient.”

He is survived by his wife Ginny Martin, a clinical nurse director at Fox Chase, a brother, three children, and three grandchildren.

W. THOMAS LONDON (1932-2017)

W. Thomas London passed away on June 3, 2017 at age 85. He was an admired colleague, friend, and a noted figure in Fox Chase Cancer Center’s history.

London was recruited to Fox Chase in 1966 by his mentor and colleague, Nobel Laureate Baruch Blumberg. He would remain at Fox Chase until he retired from active research in 2009. His many roles included Senior Member of the Division of Population Science, Director of the Liver Cancer Prevention Center, and Chair of the Institutional Review Board (IRB).

London’s research on the pathogenesis, diagnosis, prevention, and treatment of viral-related liver cancer earned him international recognition. He was a crucial member of the team that identified the hepatitis B virus and developed the vaccine to prevent it. His work also included the first demonstration

of the role of the immune system in determining the type of hepatitis a person developed. Thinking globally, London helped to establish hepatitis research programs in China and Senegal, as well as in Philadelphia.

In addition to hepatitis B research, London’s contributions had important implications for cancer prevention and for the protection of human subjects in clinical research. During his two terms as president of the American Society of Preventive Oncology, he redirected the society’s focus on cancer prevention, including tobacco cessation, vaccines, and behavioral oncology. And under his leadership, Fox Chase was one of the first



W. Thomas London

institutions in the country to earn rigorous IRB accreditation in 2004 by the Association for the Accreditation of Human Research Protection Programs.

In 2015, the Hepatitis B Foundation’s Baruch S. Blumberg Institute established the W. Thomas London Distinguished Professorship in his honor.

He is survived by his wife Linda, daughters, and grandchildren.

PHOTOS COURTESY OF FOX CHASE CANCER CENTER ARCHIVES



Left to right: Louis E. Della Penna, Sr., Carol A. Della Penna, Richard I. Fisher, Susan Fisher, Donald E. Morel & Lauren Morel

FOURTH ANNUAL *IN VINO VITA* BENEFIT AND WINE AUCTION

Last spring more than 500 people came together for the fourth annual *In Vino Vita* benefit and wine auction at Vie in Center City, Philadelphia. The event, whose name translates to “In Wine, Life,” allows supporters of Fox Chase to bid on premier wines and related items to raise funds that benefit cancer research and patient care at Fox Chase. Along with this year’s dining, dancing, and fun was record-breaking generosity.

Each year the fundraising total has grown substantially, and in 2017 the event raised \$2 million, doubling the previous year’s figure.

During a Special Pledge auction, guests had the opportunity to support pilot funding for young investigators. This seed money can often be the catalyst that brings a life-saving pilot study to life. *In Vito Vita* and its generous guests helped ensure that Fox Chase will continue to impact cancer care today and for generations to come.

TOGETHER FACING LEIOMYOSARCOMA

In 2017, Fox Chase Cancer Center held Together Facing Leiomyosarcoma, a new addition to the free informational series. The event provided in-depth education, the latest news, and an opportunity for sarcoma patients and advocates to talk with experts. After a complimentary breakfast, a team of leaders from Fox Chase, including John Abraham, MD, Sujana Movva, MD, Margaret von Mehren, MD, and Jeffrey Farma, MD spent the morning covering a range of topics and answering questions from patients and family members.



Eric M. Horwitz, MD, FACS, chair of the Department of Radiation Oncology at Fox Chase, was inducted as a fellow of the American Society for Radiation Oncology at its September 2017 meeting.



The Society of Urologic Oncology (SUO) honored **Robert Uzzo MD, FACS**, chair of the Department of Surgical Oncology at Fox Chase, with the President’s Distinguished Service Award in May 2017.



Phillip Abbosh MD, PhD, assistant professor in the Molecular Therapeutics Program, was recognized for his bladder cancer research at the Annual Meeting of the American Urological Association in May 2017.



Pooja Ghatalia, MD, a fellow in the Department of Hematology/Oncology, was awarded the Kidney Cancer Association Young Investigator Award in April 2017.



Alexander Kutikov MD, FACS, was appointed Chief of the Division of Urology and Urologic Oncology at Fox Chase Cancer Center. He was also named 2017 Reviewer of the Year by European Urology Journal.



David Wiest, PhD, was appointed to the National Cancer Institute’s Board of Scientific Counselors for Basic Sciences in October 2017.



Neal Topham MD, FACS, was appointed Chief, Division of Plastic and Reconstructive Surgery at Fox Chase Cancer Center.

FRIENDSHIP IS THE BEST MEDICINE

How A Chance Meeting Turned into a Nobel Prize Winning Discovery

BY ANDREW BECKER

It's a true story that reads like a Hollywood script: two scientists from different countries meet at a conference and decide to collaborate on a shared interest. Along with a third scientist, they work together for years, with two of the scientists going back and forth across the ocean. Ultimately they make a landmark discovery that saves many lives and earns them the Nobel Prize.

Joan are loyal donors to Fox Chase whose family played a small, but essential role in getting the initial collaboration started. That connection would one day save his life. Once the scientists—Avram Hershko and Aaron Ciechanover from the Technion-Israel Institute of Technology, and Irwin A. “Ernie” Rose from Fox Chase—decided to work together in the 1970s, many practical issues

“For international collaboration to truly succeed, the people involved must care about each other as much as they care about the science.”

— GLENN RALL, ASSOCIATE CHIEF ACADEMIC OFFICER AT FOX CHASE CANCER CENTER

But rather than riding off into the sunset as the credits roll, their story continued, even as they branched out into different fields of research.

“For international collaboration to truly succeed, the people involved must care about each other as much as they care about the science,” said Glenn Rall, associate chief academic officer at Fox Chase Cancer Center, himself a veteran of many such partnerships.

Fred Cohen's experience proves Rall's point. Cohen and his wife

had to be addressed. The most pressing was housing. Sondra Goldman, Cohen's sister, helped the Hershko family find a place to live and a welcoming community for their sabbatical year in the Philadelphia area, while Cohen and his family hosted Ciechanover in their home. Their relationships deepened over the years.

In Rose's lab, the team studied protein degradation, the process by which cells rid themselves of flawed or unnecessary proteins.



Like many Fox Chase researchers, they adhered to the philosophy of founder Stanley P. Reimann, who believed that understanding normal cell function was the key to understanding cancer. Their Nobel Prize-winning work laid the foundation for a new class of cancer drugs called proteasome inhibitors.

Since 2003, more than half a



The Rose lab with Ciechanover (third from left) and Hershko (front row left), fall 1979.

million multiple myeloma and mantle cell lymphoma patients have been treated with proteasome inhibitors. This historic collaboration also benefitted one bladder cancer patient: Fred Cohen.

In early 2015 Cohen was diagnosed with bladder cancer, and was told it could be controlled with an immunotherapy drug called BCG. Unfortunately there

was a drastic shortage of the drug. Increasingly worried, he reached out to Hershko, who immediately contacted Richard Fisher, the president and CEO of Fox Chase, who, in turn, contacted Robert Uzzo, chair of surgical oncology.

Dr. Uzzo and the dedicated team of pharmacists, nurses, administrators, and physicians at Fox Chase had anticipated the

shortage and stocked up on BCG. Cohen's treatment began within days. He remains in treatment, although the disease is under control.

Cohen credits the relationships for his well-being. "Avram and Aaron's strong link to Fox Chase brought me to Dr. Uzzo. Under his care I am able to continue to enjoy the life I've always known."



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