Our Multispecialty Approach
What It Means and Why It’s Better
Our Multidisciplinary Approach

What It Means and Why It’s Better

At most hospitals around the country, diagnosis and treatment revolve around the care team, with a series of visits with medical, surgical and radiation oncologists and other specialists at different locations. Numerous appointments for tests, care decisions and treatments are spread out over time. However, at the Kimmel Cancer Center’s Thoracic Oncology Multidisciplinary Clinic, located on the Johns Hopkins Bayview Medical Center campus, providers follow an opposing model in which the care team revolves around the patient in one central location.
The 70-year-old retiree from South Bend, Indiana, couldn’t pinpoint anything specifically wrong, except for a persistent cough. The nurse practitioner at her doctor’s office told her that it was probably viral, but Butkera didn’t worry. But after about a month, her regular physician suggested getting an X-ray of her lungs.

“I said, ‘Wait, do you think I have lung cancer? Is this a joke?’” she remembers. “But he said, ‘Better safe than sorry.’”

When she got home later that afternoon, her husband, Eddie, met her in the kitchen. With a stunned look, he told Butkera that her doctor had called to say that there was a mass on her lung. A biopsy soon after revealed adenocarcinoma, the most common lung cancer in women—making this the tenth cancer diagnosis and radiation oncologist in three different locations, they were all located at the same site. Their nurses—along with the technicians who perform imaging and other diagnostic tests and all their equipment—also needed to share the same setting.

Additionally, Hales says, at Johns Hopkins, much like most large hospitals, funds run through separate departments. To make a shared space like he’d envisioned, several departments needed to pool their resources—undue but consequential undertaking.

After years of planning, Hales and colleagues who had been scattered across The Johns Hopkins Hospital campus moved into their new combined space on the Johns Hopkins Bayview campus in 2015. It was just in time for Butkera’s first appointment in December of that year.

Building a Better Clinic
Radiation oncologist Russell Hales, director of the Thoracic Oncology Multidisciplinary Program, based at the Kimmel Cancer Center on the Johns Hopkins Bayview campus, says that he got the idea to start the clinic in 2011, during his first year at the Kimmel Cancer Center.

As a downstream provider who typically sees patients after they’ve already seen several other members of the care team, he often meet patients at the peak of frustration and stress. Many had already been through numerous appointments to see other specialists one by one over the course of months, with a bevy of diagnostic tests done on different days. Information about their condition was doled out piecemeal as each test was completed. Providers sometimes gave conflicting information or repeated the same test because of a lack of communication. Even paying for parking repeatedly added to the hassle.

“I’d look into the eyes of these patients and see people who were scared to death about their cancer diagnosis and worrying that we were extending this worry with each additional appointment,” he remembers. “Our approach is to take all those different appointments and bottle them up into a single clinic visit.”

To make that idea a reality, Hales and his colleagues in thoracic oncology needed to design a completely new kind of cancer treatment space. Rather than having medical, surgical and radiation oncologists in three different locations, they were all located at the same site. Their nurses—along with the technicians who perform imaging and other diagnostic tests and all their equipment—also needed to share the same setting.

Additionally, Hales says, at Johns Hopkins, much like most large hospitals, funds run through separate departments. To make a shared space like he’d envisioned, several departments needed to pool their resources—undue but consequential undertaking.

After years of planning, Hales and colleagues who had been scattered across The Johns Hopkins Hospital campus moved into their new combined space on the Johns Hopkins Bayview campus in 2015. It was just in time for Butkera’s first appointment in December of that year.

A Patient Guide
After Butkera recovered from the initial shock of her diagnosis, she called each of her children to let them know what was happening—including her daughter, Jessica, an attorney who lives in Chicago. Her care team recommended an appointment with Peggy Lang, a nurse practitioner and Thoracic Oncology Multidisciplinary Clinic coordinator. “I talked with Peggy on a Tuesday, and she asked how soon we could get there.” Butkera remembers. “We were in the car on Wednesday.”

Lang is usually the first contact that patients make at the clinic, and her work starts before patients ever arrive. She gathers all necessary records from other providers and determines and schedules tests and imaging patients still need.

The clinic offers initial visits for new patients once a week, starting at 9 a.m. When patients first arrive, they meet with a resident, fellow or another nurse practitioner to take a detailed history and perform a physical exam, a process that takes about an hour. Then, around 10 a.m., Lang leads an educational session for patients and whoever came with them—often a spouse or an adult child.

Butkera had both Eddie and Jessica with her on that first clinic day. She remembers feeling numb as Lang gave her five other patients a two-hour tutorial on what they’ll need to know about lung cancer, including risk factors for the disease, how staging works, how cancer can spread from its primary site, how different treatments work and why nutrition is important, among other topics.

Patients are given a lot of information, says Lang, but many find it empowering. “The more they know, the less there is to fear. There’s also camaraderie in meeting other patients with the same diagnosis,” she says. “I like to think that I’m making a very difficult situation better. Many times, patients just need someone to talk to, someone to explain it, and they need to hear it with compassion and understanding.”

All in a Day’s Work
After the education session, all the patients head to lunch as a group—an opportunity for them to get to know each other better and make contacts for support—while the care team logs into action at the clinic. After spending time reviewing each patient’s chart beforehand, they’ll spend the next hour deciding on the best care to recommend to each patient, explains Josephine “Joy” Feliciano, medical director of the Thoracic Oncology Program.

“It’s a meeting akin to the tumor boards that many cancer centers hold usually once a week, in which every member of the care team—doctors, nurses and other care providers involved in the treatment—discuss every aspect of each patient’s condition to come up with a plan. Rather than talk about patients who visited days ago—the practice at many other cancer centers—Kimmel Cancer Center experts discuss the patients seen at the clinic that same day.

“We’re not just discussing the treatments that they’ll need for that stage of cancer, but what other resources we’ll need to enroll for each patient based on what we know about them—their medical history, social history, their life circumstances—because treatment isn’t just about the cancer itself,” Feliciano says. “It’s about how this patient might need rides to chemo or that one might need us to coordinate care with their cardiologist because they have a pacemaker.”

Once the doctors conclude their meeting, it’s time to meet with patients. Medical oncologists, surgical oncologists and radiation oncologists, or any combination of these three, see each patient and discuss their recommendations for the next steps.

This single-day approach is highly unusual in cancer care, explains Hales, where patients generally have to visit doctors at different sites. All aspects of this first clinic visit—including the exam, education session, lunch and tumor board meeting—unquestionably make for a long day.

“But patients get to leave in a day with a plan that would have taken weeks to develop elsewhere,” says Hales. “We pride ourselves on that long day because so much gets accomplished.”

All the Experts Together
Tests revealed that Butkera’s tumor was situated in a way that would make surgery challenging. The cancer had also spread to tissue near her hip, she and her husband nicknamed it “the floater.” Her care team recommended combined therapy with chemotherapy and radiation. Soon after that initial appointment, she started treatment.

Thoracic surgeons are prepared for challenging scenarios like Butkera’s. “A high proportion of our patients receive treatment before surgery, but our...
outcomes are as good as everywhere else, despite the complexity," says Richard Battafarano, director of general thoracic surgery and a member of the multidisciplinary team.

After the initial diagnosis and planning, treatments and follow-up appointments also continue at the Kimmel Cancer Center on the Johns Hopkins Bayview campus. Having all the experts together helps facilitate treatment discussions, explains Hales. "If a scan reveals that a patient’s cancer has returned, I can consult with my colleagues in medical oncology to discuss starting chemotherapy right away, as opposed to waiting a week or longer to get a new appointment on the books," he says. Working in the same physical space also influences clinician-scientists’ research programs, spurring new questions and plans for studies.

"It allows each member of the care team to work together more seamlessly," says nurse Ramsey Valenti, who works with Hales. Although specialties may vary among nurses, she says, "we’re all in two-second walking distance to each other." That close proximity helps them learn more about each patient—such as which days each patient needs chemotherapy or bloodwork, or which patients are candidates for surgery.

Patients also appreciate the short distance from one treatment area to the other. Hales adds, "If patients are getting chemotherapy and radiation on the same day, they’ll walk 200 feet from one area to the next, instead of from one building to the next."

The Proof

Although Hales and colleagues knew this new model worked for Kimmel Cancer Center patients, they wanted objective data that provided evidence for other medical institutions to show this model was an investment worth making. He and his colleagues put the clinic to the test to quantify the increased value for patients and the health care system.

"Value is a buzzword in medicine these days, and increasing value can mean one of two things—improving care at the same cost or reducing cost for the same level of care," he says.

Two years ago, Hales and colleagues presented data at the American Society of Radiation Oncology (ASTRO) meeting, comparing the outcomes of lung cancer patients who received care through the multidisciplinary clinic with patients who received care outside of the clinic—either in the years just before the clinic opened or with individual providers through a more traditional care model. Their findings showed that one-year survival at the clinic was 82 percent, compared with 64 percent for patients treated outside the clinic.

Last year, Johns Hopkins radiation oncology oncologist Ranh Voong presented additional data at the ASTRO meeting, showing that the clinic provides a cost savings of 30 percent over traditional care—presumably because patients receive more streamlined planning and treatment, avoiding unnecessary appointments and tests.

"You don’t see this magnitude of improvement in some of the newer drugs coming out, and it’s even more significant because patients and the health care system are saving money," says Hales.

Butkera says her treatment has involved several twists and turns. She had two courses of chemotherapy and radiation over the past three years, and she returns to the Kimmel Cancer Center for follow-up care to receive new scans every three months. In the meantime, she’s seen her daughter get married, watched her grandchildren grow and celebrated her 48th wedding anniversary—none of which she believes would be possible without the care she received.

"I can’t say enough about the doctors, nurses, technicians and everyone at the clinic," she says. "They’ve made a really bad, scary situation much more bearable."

"Value is a buzzword in medicine these days, and increasing value can mean one of two things—improving care at the same cost or reducing cost for the same level of care," he says. Two years ago, Hales and colleagues presented data at the American Society of Radiation Oncology (ASTRO) meeting, comparing the outcomes of lung cancer patients who received care through the multidisciplinary clinic with patients who received care outside of the clinic—either in the years just before the clinic opened or with individual providers through a more traditional care model. Their findings showed that one-year survival at the clinic was 82 percent, compared with 64 percent for patients treated outside the clinic.

Last year, Johns Hopkins radiation oncology oncologist Ranh Voong presented additional data at the ASTRO meeting, showing that the clinic provides a cost savings of 30 percent over traditional care—presumably because patients receive more streamlined planning and treatment, avoiding unnecessary appointments and tests.

"You don’t see this magnitude of improvement in some of the newer drugs coming out, and it’s even more significant because patients and the health care system are saving money," says Hales.

Butkera says her treatment has involved several twists and turns. She had two courses of chemotherapy and radiation over the past three years, and she returns to the Kimmel Cancer Center for follow-up care to receive new scans every three months. In the meantime, she’s seen her daughter get married, watched her grandchildren grow and celebrated her 48th wedding anniversary—none of which she believes would be possible without the care she received.

"I can’t say enough about the doctors, nurses, technicians and everyone at the clinic," she says. "They’ve made a really bad, scary situation much more bearable."
Ronald Shurer is no stranger to tough hours to reach and care for members of our military. "In a lot of respects, I'm approaching cancer in the same way I was going to point to some type of muscular injury for fighting for more than an hour to reach and care for members of his unit when attacked by 200 enemy fighters during the Battle of Shok Valley in Afghanistan on April 6, 2008. He was diagnosed two years ago with great people," says Shurer.

Lessons from Two Battlefields

A Military Hero Confronts Advanced Lung Cancer

U.S. Army Special Forces veteran Ronald Shurer is no stranger to tough battles. The Green Beret and senior medic was awarded the Medal of Honor in 2018—the country’s highest military honor—for fighting for more than an hour to reach and care for members of his unit when attacked by 200 enemy fighters during the Battle of Shok Valley in Afghanistan on April 6, 2008. In March 2017, Shurer unexpectedly found himself on a new kind of battlefield, facing a near-death attack by a different kind of enemy—lung cancer. The battle is longer and the methods different, but the strategy is a bit similar, as 40-year-old Shurer works with his Johns Hopkins Kimmel Cancer Center oncologist Ben Levy to monitor the enemy and adjust the attack to defeat as many of the invading cancer cells as possible. "In a lot of respects, I'm approaching cancer in the same way I approached my Army missions, relying on gains and surrounding myself with great people," says Shurer.

He was treated with an EGFR-blocking drug called afatinib—one pill taken orally every day—and for almost two years, it kept his cancer in check. Radiation oncologist Jean Levy also treated some of Shurer’s tumors with radiation therapy to alleviate pain caused by the cancer. In March 2017, on a scale of 1 to 10, Shurer classified his pain as a 9. "After three weeks of radiation with Dr. Wright, it was a 1," he says.

Levy understands advanced cancer and how it can turn the tables to become resistant to treatment, so he was always developing multiple plans to go after Shurer’s cancer. With advanced cancers like Shurer’s, it’s unlikely that treatment will make him cancer-free, but they can hold the cancer in check, keeping it from growing, essentially converting it to a chronic state that patients can live with.

Even when things were going great, he was always looking for ways to improve our position or to shift course if things started going the other way," says Shurer.

That was the case in October 2018, just a few weeks after his Medal of Honor ceremony, when a CT scan revealed the cancer was growing again. The first EGFR inhibitor knocked the cancer back quite a bit and held it in check for 19 months, so Levy plans to use a newer and better iteration of the drug to stabilize Shurer’s cancer once again. If newer versions of the drug don’t work, he has several other treatment options he is considering, including the possibility of a clinical trial. He remains confident in the expertise of Levy, Wright, nurse practitioner Rasheda Persinger and all of the Kimmel Cancer Center at Sibley experts who provide his cancer care.

"They take great care of us every time we’re there. They listen to us, we’re there. They listen to us, and we appreciate that," says Shurer. "They have our complete trust. We are in this fight together."
Breaking Down Barriers to Lung Cancer Treatment

Differences in the health status of various groups of people are known as health disparities, and they are becoming a focus of attention among health care providers. Factors such as race, ethnicity, immigrant status, disability, sex or gender, sexual orientation, geography and income can all impact how illness and disease affects someone. Like many illnesses, lung cancer does not discriminate. It is known to affect anyone, regardless of race, ethnicity, or any other aspect of who they are.

Access to Care and Care Delivery
All along the way, these patients face hurdles to optimal care for their disease. The problem starts even before they are diagnosed, with a lack of access to primary care physicians or not being under the care of a primary care physician. These doctors are very important because they are often the clinicians who first suspect the presence of cancer.

Representation in Clinical Trials
African Americans and other underserved and minority populations are underrepresented in clinical trials of new treatments. Working with patient navigators, Feliciano hopes to identify more patients with lung cancer in the area who are eligible for studies but may be unaware of the promising new treatment options being studied. She also is collaborating with Dina Lansey, assistant director of diversity and inclusion in clinical research, to see if her patients can be included in a study to determine if providing free transportation or parking has a positive impact on clinical trial participation.

Lack of Social Support and Access to Resources
“Something that can make a huge impact for these patients is having support from social workers and counselors,” says Feliciano. “It’s not just the cancer they’re dealing with. It’s many issues at home. Lung cancer is really a disease that affects the whole family at many levels. There is a lot of room for improvement for resources to be directed to those who need them most.”

Feliciano works with social workers and navigators to make sure that a whole range of needs are taken into account, “Our goal is to understand these barriers to care so that we can do better for our patients.”

Surviving and Thriving: Darlene Stewart, a patient of Feliciano’s, is a retired teacher and a two-time cancer survivor. She battled breast cancer in her 20s. Now, she is combating advanced lung cancer, receiving a drug that targets a gene mutation in her cancer.

“Something that can make a huge impact for these patients is having support from social workers and counselors,” says Feliciano. “It’s not just the cancer they’re dealing with. It’s many issues at home. Lung cancer is really a disease that affects the whole family at many levels. There is a lot of room for improvement for resources to be directed to those who need them most.”

Feliciano works with social workers and navigators to make sure that a whole range of needs are addressed and met, including transportation needs—often a main concern—and ensuring that prescriptions are filled and taken. “These interventions may seem simple, but they may impact whether or not a patient completes their treatment,” she says.

Cost
Feliciano and colleagues are looking at how the costs of cancer care impact patients. The cost of drugs; lost wages from missed work; treatment for side effects, such as nausea and pain; and the cost of parking and transportation can add up to what feels like an insurmountable burden. It is possible this “financial toxicity” from cancer care may impact patient choices and ultimately outcomes from their disease as well. “There are so many costs that providers are unaware of and don’t take into account,” says Feliciano. “Our goal is to understand these barriers to care so that we can do better for our patients.”

With all these efforts, the Kimmel Cancer Center is dedicated to finding innovative ways to break down barriers so that all patients with lung cancer have access to the support and treatment they need to survive and thrive.
Pembrolizumab works so well in this cell lung cancer patients whose cancer (Keytruda) became the first immunotherapy to gain FDA approval as and start with immunotherapy. A first-therapy, and pembrolizumab approved for treatment of advanced small cell lung cancer. She and the retested anti-Pd-1 therapy in a variety making it the second FDA-approved immunotherapy combination. 10 LUNG CANCER MATTERS

A WILD RIDE

Patrick Personne was not surprised when his doctor told him he had lung cancer. The 62-year-old had been a smoker for more than 40 years, so when he began feeling ill and developed a nagging cough, lung cancer certainly came to mind. What did surprise him, however, was learning about a new type of treatment called immunotherapy.

“To me, lung cancer meant I was going to die. I thought I was done,” recalls Personne. The avid motorcycle rider began planning his farewell ride, a trip to Patagonia, Argentina.

“When I was first diagnosed and saw the X-ray, there was this huge black spot on my lung. After just two treatments with the immunotherapy, it disappeared. It was like magic.”

His doctor encouraged him to go to the Johns Hopkins Kimmel Cancer Center. “He told me, ‘They are the best in the country,’” says Personne. He met with thoracic surgeons Stephen Yang and lung cancer expert Patrick Forde, whose own lung cancer was diagnosed within days of his diagnosis and enrolled in a clinical trial using immunotherapy before surgery. “When I was first diagnosed and saw the X-ray, there was this huge black spot on my lung. After just two treatments with the immunotherapy, it disappeared. It was like magic.”

Patrick Forde, M.B.B.Ch.

In this small study of 21 lung cancer patients with operable tumors, nine patients had a 90 percent or more reduction in tumor size. Forde and colleagues believe the immunotherapy prompted an aggressive immune attack against the cancers.

“These findings suggest that the timing of immunotherapy may be critical to successful cancer treatment in people whose lung cancers are operable,” says Forde. He plans additional studies to see if they can extend this immune response to more patients by giving a longer course of anti-PD-1 and giving it in combination with other checkpoint inhibitors before surgery.

All these studies are aimed at PD-1 and a related partner protein on tumor cells called PD-L1. PD-1 is what immunology experts call an immune checkpoint. Checkpoints are molecules on the surface of T cells and natural regulators of the immune response that cancer cells use to avoid immune recognition and attack. Drugs such as nivolumab and pembrolizumab block checkpoints and signal the immune system to attack cancer cells. Laboratory research and early clinical trials point to Pd-1 as one of the strongest influencers of an immune response to cancer identified so far.

Nivolumab has produced the longest follow-up to date of an immune checkpoint inhibitor. “Five-year overall survival quadrupled in non-small cell lung cancer, compared with what we would expect from chemotherapy,” says Brahmer, director of the Thoracic Center of Excellence and the Bloomberg-Kimmel Institute for Cancer Immunotherapy lung cancer immunotherapy program.

“Based on these data, I think we can shorten the amount of time patients are treated. But we need to identify those patients who develop immune memory,” says Brahmer. He wants to test if we can safely say not all patients need indefinite treatment. We want to personalize therapy. We are continuing to look for biomarkers for response and long-term control.”

Five healthy habits that can help support your wellness during and after treatment include:

1. STOP SMOKING
2. EAT WELL
3. BE ACTIVE
4. ENLIST SUPPORT
5. MANAGE YOUR CARE

Whether it’s you or a caregiver who’s championing your cancer care, it’s important to have someone who is listening for your needs. This includes communicating with your cancer care team, coordinating appointments, and keeping track of symptoms and side effects.
A ‘Pesty’ Solution

How the Bugs We Live with Could Help Fight Lung Cancer

A NEW CLASS OF cancer-fighting drugs called checkpoint inhibitors is offering hope to patients with several kinds of solid tumors, particularly lung cancer and melanoma. The medications, which work by spurring the body’s immune system to attack tumor cells, prolong life in roughly 20 percent of people who take them.

Why some patients do well but others fail to improve is a mystery, but emerging evidence suggests that at least some of the reason may lie with the trillion-odd bacteria that make up the body’s microbiome.

Microbiome refers to the community of bacteria that thrive in and on the body. The large and complex community has significant effects on immunity, including immune responses that actually promote or inhibit immune system development and interfere with how cancers respond to immunotherapy.

Infectious disease and microbiome expert Cindy Sears is leading the research effort. “We’re trying to attack on multiple fronts,” says Sears. Research in the area has heated up recently, with several publications showing that groups of bacteria may alter the function of immune cells in ways that intersect with the function of checkpoint inhibitors. Some experiments found that a greater abundance in the gut of certain species of bacteria was associated with a stronger response to the drugs. Others showed the opposite—species of microbes that, when present, were linked to a poorer response to the immunotherapy drugs.

At the moment, the research is in early days, Sears says, with many questions remaining unanswered. Which species of microbes are most important in the interaction, and how they alter the way the body processes the cancer drugs is unclear.

“One possibility is that there is priming, or education, of the immune system that either enhances or inhibits the capacity of the cells to respond to the tumor,” Sears says. In other words, the presence of certain bacteria in the intestines conditions the immune system to interact with checkpoint inhibitors in ways that both make the drugs stronger and that potentially weaken their effectiveness. Their goals are to identify which strains of bacteria sit on which side of the ledger and, if possible, to tweak a patient’s microbiome in ways that make the cancer drugs even more potent.

Infectious disease and microbiome expert Cindy Sears is leading the research effort. “We’re trying to attack on multiple fronts,” says Sears.

Researchers at the Johns Hopkins Kimmel Cancer Center and Bloomberg-Kimmel Institute for Cancer Immunotherapy are studying how the microbiome—the menagerie of germs that live in the gastrointestinal tract and other organ systems, including the lungs and skin—may interact with checkpoint inhibitors in ways that both make the drugs stronger and that potentially weaken their effectiveness. Their goals are to identify which strains of bacteria sit on which side of the ledger and, if possible, to tweak a patient’s microbiome in ways that make the cancer drugs even more potent.

One possibility is that proteins that the bacteria in the gut make are enough to stop those produced by cancer cells. “In this idea, the patient’s immune system first develops an immune response to one or more bacterial proteins,” Sears says. When the tumor is treated with checkpoint blockade, the immune system is released to attack the tumor using the antibodies against bacterial proteins that ‘mimic’ tumor proteins.

Lung cancer expert Jarushka Naidoo is collaborating with Sears on the project. She is helping collect samples of bacteria from patients being treated with immunotherapy, taking swabs from stool, fluid from the lungs—which have their own microbe—the mouth and urine. Using DNA profiling, they’ll catalog all of the organisms present and try to build a profile of which ones are linked to a good response to the drugs and which appear to hinder their effectiveness.

Although the research is still in its early stages, Sears says she hopes the work will lead to the development of therapies—such as a “microbe cocktail” or even a vaccine—that will boost the immune response in cancer patients who receive immunotherapy. “We don’t want these drugs to work for most patients, not just a small percentage of them,” she says.
Technology Guides Immunotherapy: There are trillions of T cells within the human body. Each one has the ability to see a different biochemical signature. Kellie Smith, Ph.D., is focusing on developing new T cell receptor-based immunologic analysis and applying these technologies to lung cancer patients. Smith and Francois Houssiau, Ph.D., both from Swim Across America investigators, invented a sensitive test to detect the tumor T cells, recently reported on in Cancer Immunology Research. This technique, called MANAFEST, has the capacity to scurry immense amounts of data to reveal the unique biochemical signatures in each patient’s cancer that alert specific immune cells T cells in that patient’s cancer. The technology can be used to guide therapy, helping oncologists personalize immunotherapies by using drugs that will unleash an immune attack against individual cancers.

Valsamo “Elsa” Anagnostou, M.D., Ph.D., Julie Brahmer, M.D., Patrick Forde, M.B.B.Ch., Kristin Harrington, M.D., and Jarushka Naidoo, M.B.B.Ch., collaborated on this research. Funders included the Bloomberg-Kimmel Institute for Cancer Immunotherapy, Bloomberg Philanthropies, and NIH Cancer Center Support Grant, the Lung Cancer Foundation Unite for Cancer Campaign, and International Association for the Study of Lung Cancer. Standing Up To Cancer (SU2C) Catalyst clinical trial projects. The inaugural SU2C Catalyst projects will explore new uses for an array of powerful medicines from three SU2C Catalyst charter supporters and six other companies.

Addressing Treatment Resistance in Small Cell Lung Cancer: Kimmel Cancer Center researchers received a $3.1 million grant from the National Institutes of Health to study the resistance of limited stage small cell lung cancer to a combination of chemotherapy and radiation therapy. Christine Hann, M.D., Ph.D., and Phuoc Tran, M.D., Ph.D., are among the researchers who will lead the project expected to have a direct impact on the causes and possible treatment for chemoresistance in small cell lung cancer. Chemotherapy is the most common treatment for small cell lung cancer, but radiation therapy is frequently used in combination with chemotherapy when the tumor is confined to the lung and other areas inside the chest. Most patients respond to initial treatment, but the return of the disease due to chemoradiation resistance is almost universal. The researchers expect this research to provide a broader understanding of chemoradiation resistance in other cancers as well, pointing to new ways to target treatment resistance.

Lung Cancer at Siblery-Web Exclusive: Kimmel Cancer Center Director William Nelson, M.D., Ph.D., talks with Ben Levy, M.D., clinical director of medical oncology at Siblery Memorial Hospital, about new treatments for lung cancer patients and the growing cancer center at Siblery. bit.ly/2CTMfQ

Julie Brahmer Receives Multiple Honors: Julie Brahmer, M.D., was elected to the International Association for the Study of Lung Cancer board of directors and was also featured on the cover of Chestwine Physician magazine for her work in advancing lung cancer therapies. She also was honored by the Baltimore Orioles, with its Birdland Community Heroes Award, which recognizes those who inspire others through charity and community service. She was nominated by Lungevity, which also honored Brahmer with its Face of Hope Award, for those who recognize the needs and actively make a difference for people living with lung cancer.

Managing Side Effects of Immunotherapy: A Conversation with Jarushka Naidoo

Immunotherapy is a promising new therapy that activates the immune system to attack cancer cells. It has a completely different side effect profile than chemotherapy, and that has caught some physicians off guard. Doctors—including emergency room physicians, dermatologists and gastroenterologists—need to learn about immunotherapy.

What do patients and doctors need to keep in mind about immunotherapy side effects? The Johns Hopkins Kimmel Cancer Center’s Bloomberg-Kimmel Institute for Cancer Immunotherapy is leading the way and setting national standards for recognizing and managing immunotherapy side effects. These side effects can present with a wide range of symptoms, so their management requires the cooperation of many experts. We have assembled a group of specialists for every part of the body that has the potential for adverse reactions to immunotherapy, and they are on call for us 24/7. It is important for doctors and patients to call right away if they experience any symptoms, even if they believe them to be minor.

What types of side effects should doctors and patients look for? Patients can experience side effects that include anything that ends in “itis.” They are typically ones that involve inflammation, such as colitis (inflammation of the colon) and the worst of them, pneumonitis (inflammation of the lung). These types of side effects aren’t unexpected when taking medicines that tinker with the immune system, and inflammation is considered an immune-related biochemical process. Aside from inflammation-related side effects, fatigue often tops the list of side effects. Some patients also experience low thyroid hormone levels. A new patient study is exploring a connection between immunotherapy and the development of inflammatory arthritis. The tonic effects of immunotherapy drugs can occur anytime during a patient’s treatment, even after patients stop taking the drugs. If side effects occur, they are typically at low-grade levels, but some have more severe effects. Treatment includes oral corticosteroids, and, for severe problems, hospitalizations may be necessary.

How are you educating patients about immunotherapy side effects? Our patients come from all over the country. They could end up in emergency rooms or offices with doctors who do not understand patients’ symptoms or mistake them for infections and provide incorrect treatment with devastating consequences. To prevent this, all of our immunotherapy patients are given a wallet card to carry with them all the time with information about all the doctors they see. The card says, “I’m on immunotherapy. Please contact my oncologist.” The card provides contact information and the name of the drug or drugs patients are on. We also have a patient hotline, pager, email system, and an information website.

What about doctors? With support from the Cold Foundation, I am attending national cancer meetings with a Bloomberg-Kimmel Institute nurse to educate other doctors. We are developing a program that will include workshops for all physicians and working with organizations like the National Comprehensive Cancer Network, which I am a member, to share what we have learned and to establish standards for managing immunotherapy side effects. Julie Brahmer is co-chair of the toxicology guidelines committee of the American Society of Clinical Oncology, National Comprehensive Cancer Network and the Society for the Immunotherapy of Cancer. We are also working on a web-based course for doctors.
Patient Creates Award to Distinguish the Best Lung Cancer Doctors and Nurses

Kimmel Cancer Center team is among inaugural recipients.

From left front, Christine Hann, M.D., Marilyn Holman, Hanika Reyes Rodavia, R.N. Back: Russell Hales, M.D., Matt Holman, Ph.D.

Despite being a scientist, Matt Holman was unsure of the best treatment plan and where to go to find it when his wife, Marilyn, was diagnosed with small cell lung cancer in 2016. He couldn’t imagine what it must be like for the many patients and families who have no science or medical background.

“We had a lot of choices for where to go for treatment. I wanted to know what hospital had the best doctors and nurses and would provide the best care for my wife,” says Holman, a scientist at the FDA.

He did his research, and ultimately, he and Marilyn selected the Johns Hopkins Kimmel Cancer Center, where she was treated by lung cancer experts Christine Hann, a medical oncologist, Russell Hales, a radiation oncologist, Amy Vance, a nurse practitioner, and Hanika Reyes Rodavia, a clinical research nurse.

“We were extremely impressed with the care Marilyn received,” says Holman, so much so that they wanted to nominate the doctors and nurses for a patient care award.

Marilyn said people asked her why she chose Johns Hopkins for her treatment. Her response was simple and direct: “Because they are the best.”

Matt volunteered to take the lead on researching potential awards to find just the right one to acknowledge their Kimmel Cancer Center lung cancer team. The problem was, when he began to look, he could not find a single award that recognized stellar patient care.

His search turned up plenty of research awards, but nothing for patient care. Thinking he must have overlooked something, he reached out to his staff and colleagues at the FDA, but much to his surprise, no one knew of an award for outstanding patient care.

In the absence of an existing award, Matt and Hales decided to establish the IAsLC Foundation Cancer Team Award. The problem was, there was no definition for what qualities comprise the best patient care.

“I wanted the award to be a guidepost for patients, helping direct them to compassionate and expert, multispecialty, team-based care. They were impressed with the depth of knowledge of their Kimmel Cancer Center care team. They get every expert involved in the care of lung cancer around the table to develop treatment plans for each patient,” says Matt. “It’s easy to take that kind of specialty care for granted, but trust me, it doesn’t happen everywhere.”

Marilyn had even more to say: “The clinic was closing, but our nurse practitioner, Amy, stayed with us, consulting with the necessary experts to get us the answers we needed,” says Matt. “She stayed late and waited for all of the experts to look at the test results so she could give us a plan to get us through the holiday weekend.”

To make their patient care award idea a reality, the Holmans decided to reach out to the International Association for the Study of Lung Cancer (IAsLC), which supports research through young investigator awards. The IAsLC Foundation representatives agreed that a caregiver award was needed, and working with Marilyn and Matt, they established the IAsLC Foundation Cancer Team Award. Matt, Hales, Vance and Rodavia were among the inaugural recipients.

“The truth is, if Drs. Hann and Hales, and all of the other doctors and nurses had not provided such exceptional patient care, this award would not exist,” says Matt.

Marilyn recently passed away, but because of her and Matt’s persistence, patients, survivors and caregivers have a way to honor and recognize multispecialty lung cancer teams—experts in all areas of lung cancer treatment—that provide exceptional care. The international award helps the best of the best stand out among the many lung cancer providers and can help ease the burden for newly diagnosed patients around the world who are searching for the best lung cancer care.
Help Us Make a Difference

Every contribution to the Johns Hopkins Kimmel Cancer Center makes a difference in the lives of cancer patients here at Johns Hopkins and around the world.

Our physician-scientists are leading the way on many of the scientific breakthroughs in lung cancer, and your donation will support patient care and innovative research that is translated to better, more effective treatments. We are also focusing on ways to prevent cancer and support survivors.

You may designate a gift to a specific faculty member.

To make your donation online: hopkinscancer.org and click “Make a Gift”

To mail your donation: Johns Hopkins Kimmel Cancer Center 750 E. Pratt St., Suite 1700 Baltimore, MD 21202

Please note that you would like your gift to support the thoracic cancer program.

To contact our Development Office:
Phone: 410-361-6391
Fax: 410-230-4262
Email: KimmelGiving@jhmi.edu

Visit us on the web: hopkinscancer.org

SISSY’S STORY

SCULPTOR SISSY FRIERSON, 81, WAS ESSENTIALLY TOLD TO GO HOME AND DIE WHEN SHE WAS DIAGNOSED WITH LUNG CANCER IN JANUARY 2016. THE TUMOR WAS WRAPPED AROUND HER PULMONARY ARTERY, WHICH CARRIES BLOOD FROM THE HEART TO THE LUNGS. “I KNEW I HAD TO DO SOMETHING,” SAYS SISSY, WHO LIVES IN SOUTH CAROLINA. A FRIEND RECOMMENDED SHE GO TO THE JOHN HOPKINS KIMMEL CANCER CENTER, AND SHE FOLLOWED THAT ADVICE.

THERE, SHE MET WITH LUNG CANCER EXPERT PATRICK FORSE AND JOINED A CLINICAL TRIAL OF THE IMMUNOTHERAPY DRUG NIVOLUMAB BEFORE SURGERY. IMMUNOTHERAPY SHRUNK THE TUMOR, PULLING IT AWAY FROM HER PULMONARY ARTERY SO THAT IT COULD BE SURGICALLY REMOVED. HER LAST SCAN SHOWED NO EVIDENCE OF CANCER.

“I WOULD NOT BE HERE TODAY IF NOT FOR THAT CLINICAL TRIAL. I CANNOT SAY ENOUGH ABOUT HOW WONDERFUL THOSE DOCTORS ARE. BECAUSE OF THEM, I’VE SEEN TWO GREAT GRANDCHILDREN BORN, AND I’VE TRAVELED TO ICELAND, HAWAII AND ROME,” SAYS SISSY. “I’M LIVING A WONDERFUL LIFE.”