

Winter/Spring 2019

Donor Giving *Supports* Cutting-Edge Immune Tests

Endometrial cancer patient Kathryn with her husband, Patrick.



“My expectation is not that my life will be problem-free down the road. But right now I’ve already prolonged it and have been able to see two grandbabies born.”

Kathryn knows how to follow her gut. When it led her to Roswell Park, it may have saved her life.

She didn’t start out here. In 2015 Kathryn was diagnosed with endometrial cancer. She did her research and selected an oncologic surgeon with a strong background. Under their care, she had surgery, chemotherapy and radiation. But the cancer kept coming back.

“Each time that they said I was good and I was supposed to wait to have a CT, I just got a dark feeling and asked for the CT sooner. That’s how they caught the cancer each time.”

Just before the second surgery her doctor then scheduled, she received some pre-surgery information in the mail that showed a gruesome illustration of the potential aftermath of the procedure.

“I thought, This is not how I want to end my life. I think I should do more looking and fighting.”

That’s when she called Roswell Park. She immediately saw Emese Zsiros, MD, in the Department of Gynecologic Oncology. “She had a great bedside manner. She was really truthful

about the options I had and what I should be willing to do. I walked out of there with a new spirit.”

Dr. Zsiros began Kathryn’s Roswell Park treatment with hormone therapy. When the cancer was still spotted on the next CT scan, she recommended some specialized testing including OmniSeq Immune Report Card®.

OmniSeq Immune Report Card develops a profile of the patient’s immune system to determine which immunotherapies and clinical trials are likely to help it do its best fighting.

Immune Report Card indicated that she would have a favorable response to a specific immunotherapy drug. She started getting it every three weeks.

Kathryn has had a complete response to the drug that was recommended as a result of the OmniSeq test, which means she’s currently cancer-free and no longer receiving the immunotherapy. She knows she might have to go on it again if any cancer comes back. But for now, she’s thankful for the test and the positive impact it and Roswell Park have made on her cancer journey.

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Buffalo Transportation driver April helps a Roswell Park patient into the wheelchair van.

DONATIONS HELP Patients With TRANSPORTATION and LANGUAGE NEEDS

What would you do if you had to have chemo five days a week but didn't have a way to travel to your treatment? Or if you didn't speak the same language as your doctor and couldn't understand their instructions? How scared might you be in an already-frightening situation?

Patients at Roswell Park facing these vital questions have a little less to worry about thanks to two donor-supported quality-of-life programs addressing transportation and translation needs.

These are just two of the 44 programs that received \$1,182,459 in funding last year thanks to donor support. The Alliance Foundation's quality-of-life grants fund resources and services that might not fall directly under the cancer-care umbrella but are critical to a patient's treatment and well-being all the same.

TRANSPORTATION SERVICES

Many patients have trouble getting to Roswell Park for treatment, especially when caring family and friends still have to work. Fortunately, Roswell Park is able to provide transportation services to many patients.

"We arrange for about 600 rides per month," says Pat Czamara, Roswell Park's Director of Case Management and Interim Director of the Social Work Department.

The no-cost assistance program helps to relieve a great burden for patients and helps to ensure that they can receive their cancer care.

It is available to both inpatients and outpatients, including nursing home residents when their facility doesn't provide transportation.

A loved one or other caregiver can also ride with patients to their appointments.

The service is provided to any patient who expresses need and lives within the radius covered by this quality-of-life program: 25 miles in the city of Buffalo and 50 miles in rural areas. The service is available for Roswell Park's main downtown campus and for its satellite locations in Amherst and Niagara Falls. Patients or their family members can simply call a dedicated transportation line at least 24 working hours ahead of their appointment time weekdays from 8:30 a.m. to 4:30 p.m. to get assistance.

"The goal is to increase their access to care, reduce interruptions to their treatment plans, and assist them in reducing or eliminating transportation-related barriers by offering comprehensive non-emergency transportation," explains Czamara.

Without this program, some patients could be forced to put off or even cancel much-needed treatments.

"I appreciate that Roswell has transportation for cancer patients because a lot of us don't have ways of getting there," says a multiple myeloma patient who utilizes the service for chemotherapy and doctor appointments. "Thank you to people for donating to Roswell for transportation — and other things, too. Cancer research and everything. It's a blessing that Roswell is here."

LANGUAGE ASSISTANCE/INTERPRETER SERVICES

When a new patient registers at the hospital or makes their first appointment by phone, Roswell Park staff assess whether they might have limited English proficiency or hearing impairment. When one of these is the case, wheels are set in motion to provide interpreter services at no charge whenever they have a scheduled appointment.

"We work collaboratively with multiple language assistance providers and use technology to reach out to qualified area interpreters who can come to Roswell Park to interpret for our patients or, if that's not possible, to provide that interpretation telephonically," says Czamara.

"We have a large number of non-English-speaking patients coming here," she adds, with Spanish being the No. 1 request.

Patient need for these services has grown rapidly in recent years, **and last year, there were 3,161 total orders for language assistance/interpreter services in 30 different languages.**

Telephonic interpretation, also known as a language line, is also available 24/7 for patients when an in-person interpreter may not be available. Document translation may also be provided as needed.



Roswell Park's Quality of Life Fund is supported by the Ralph C. Wilson Jr. Foundation and the generosity of our donors.



Dr. Dheerendra Prasad (far right) leads the Gamma Knife Center at Roswell Park.

In November 1998, Roswell Park took a leap when it began to offer an emerging technology called Gamma Knife radiosurgery, a minimally invasive option for treating many brain tumors and other disorders. Twenty years later, some 6,300 patients have been treated through this advanced and targeted approach — many of them from across the country and around the globe.

Roswell Park's Gamma Knife Program was started with a \$3.5 million grant made possible by donations. The Gamma Knife Center at Roswell Park is the only facility in Western New York to offer Gamma Knife radiosurgery, and Roswell Park's has remained one of the leading radiosurgery programs worldwide.

The Center is led by Dheerendra Prasad, MD, who is among the top three most experienced Gamma Knife experts in the world, having

Celebrating ROSWELL PARK'S GAMMA KNIFE PROGRAM



and the donations that started it all

performed more than 12,000 radiosurgery procedures himself. He has traveled to 68 centers worldwide to train providers and share his expertise and best practices.

More than two decades later, patients continue to benefit from the program that was started thanks to the generosity of donors.

"Of all the treatments I've been through, Gamma Knife radiosurgery was the least invasive. After a treatment, I can get up and go out to lunch," says Konstance Engelsman, who was diagnosed with metastatic breast cancer in 2013 and travels to Buffalo from her home in the Hudson Valley to receive care from Dr. Prasad and his team. **"Your quality of life is paramount. My decision to seek care at Roswell Park was an all-around, complete win."**

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New Research Projects Launched Thanks to Donor Support

Your gifts are helping groundbreaking new research take flight at Roswell Park.

Twice a year, the Alliance Foundation's Scientific Advisory Committee (SAC) announces a call for grant applications from Roswell Park's research community. These grants provide seed funding for our researchers to launch ideas that have demonstrated the potential to impact patient care and save lives.

The committee received 30 applications this past fall, five of which were selected by the SAC to receive grant awards, totaling \$500,000.



Lung Cancer – Lung cancer is the leading cause of cancer-related death worldwide. Approximately two-thirds of patients are diagnosed at an advanced stage, and of the remaining patients who undergo curative surgery, 30-50 percent have a recurrence with metastatic disease. Unfortunately, the molecular mechanisms underlying lung cancer progression remain poorly understood. Our project aims at understanding the role of a novel enzyme, SETDB1, in lung cancer progression and metastasis, with a goal of evaluating SETDB1 as a therapeutic target and facilitating the development of novel strategies for lung cancer treatment.

Jia Fang, PhD, Department of Pharmacology and Therapeutics



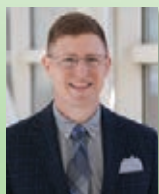
Triple-Negative Breast Cancer – Triple-negative breast cancer is a highly aggressive form of breast cancer that often recurs after initial treatment, is highly likely to spread and is notoriously hard to treat. The high relapse rate can be attributed to a small population of cancer-initiating cells in the tumor. Our study will explore the roles and underlying processes involved with these cells, tumor creation and metastasis, with a goal of developing a new way to attack this terrible cancer and save more lives.

Jianmin Zhang, PhD, Department of Cancer Genetics and Genomics



Immunotherapy – Adoptive T cell therapy is a cutting-edge type of immunotherapy in which a patient's own T cells are removed, reengineered to fight cancer cells and infused back into their body. It is one of the most effective treatments for cancers like melanoma, sarcoma, lymphoma and leukemia. The problem is that the new cells don't live very long after infusion, and the cancer returns. With this project, we will determine whether we can reprogram adult T cells into a kind of stem cell that could live longer and delay or even prevent relapse. Results should help us develop significantly improved treatments for advanced and metastatic cancers, as well as help launch new personalized treatments.

Fumito Ito, MD, PhD, Department of Surgical Oncology



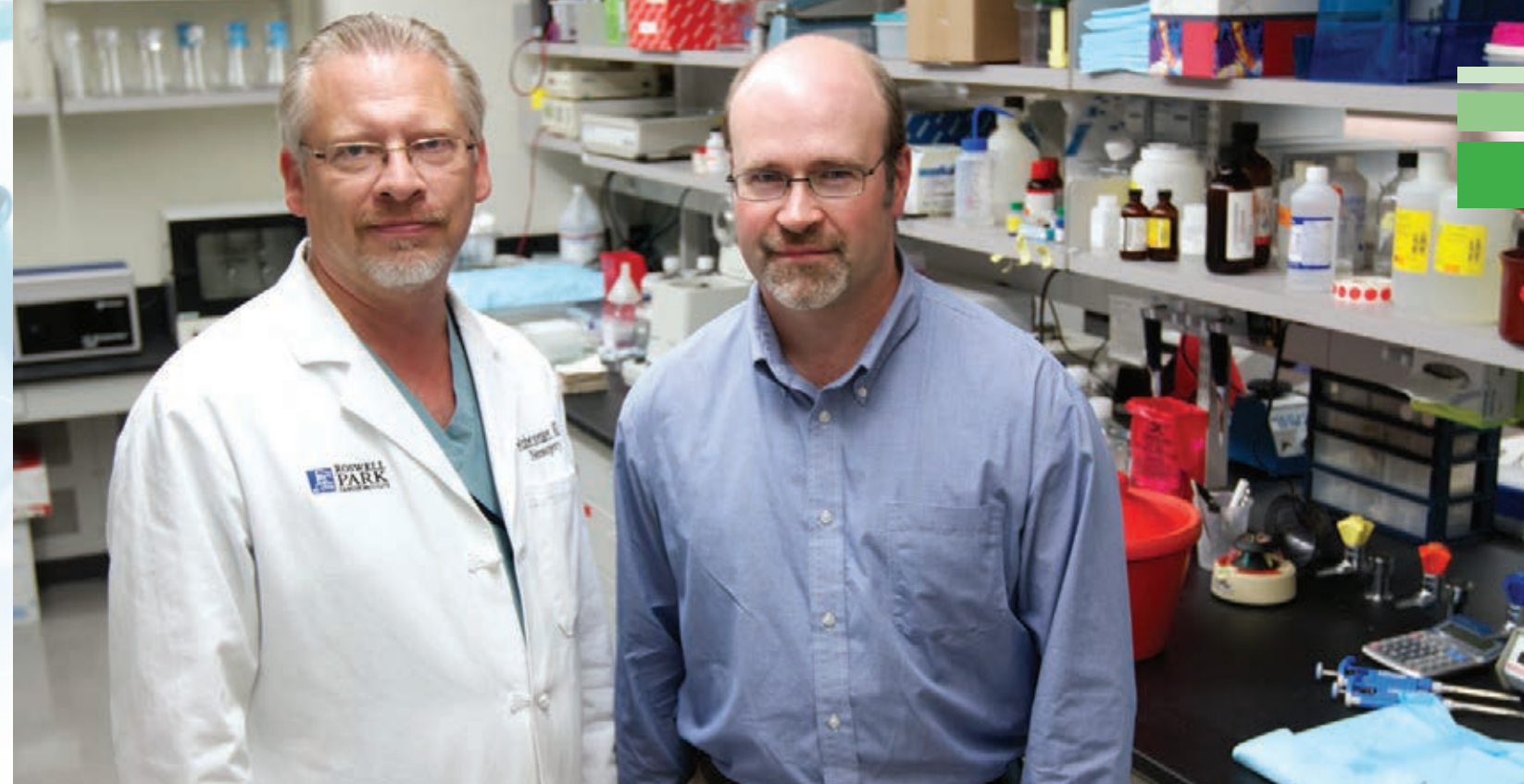
Pancreatic Cancer – Pancreatic ductal adenocarcinoma (PDA) is a highly lethal cancer with a five-year survival rate of 9 percent, due in part to treatment resistance and the fact that it is so often diagnosed in late stages. While surgery can cure it, the majority of patients can't have surgery because it has already spread. We have discovered that a particular process plays an important role in driving pancreatic cancer initiation and progression. Through this study we will explore this process in greater detail and determine if targeting specific drugs against this process will help us save more lives from PDA.

Michael Feigin, PhD, Department of Pharmacology and Therapeutics



Pediatric Cancers – Synovial cell sarcoma (ScS) and Ewing sarcoma (ES) are soft-tissue tumors in children, adolescents and young adults. They have very poor long-term survival because there aren't many drugs that can target the genetic mechanisms causing them. Data generated from this study will help us determine which drugs could hinder development of ScS and ES so we can substantially increase survival of patients with these diseases.

Irwin Gelman, PhD, Department of Cancer Genetics and Genomics



Roswell Park's Robert Fenstermaker, MD, Chair of Neurosurgery, and Michael Ciesielski, PhD, Assistant Professor of Oncology.

The POWER of DONATIONS in EXTENDING LIVES for Brain Cancer PATIENTS

In recent years, donations from Roswell Park supporters like you have provided the critical funding needed to develop a promising brain cancer vaccine and test it in phase I and II clinical trials.

Glioblastoma is the most common and aggressive form of primary brain cancer in adults, with approximately 14,000 cases diagnosed each year in the U.S. It's a deadly disease that's difficult to treat because even with surgery, cancer cells are often left behind, and patients relapse. But Roswell Park's Robert Fenstermaker, MD, Chair of Neurosurgery, and Michael Ciesielski, PhD, Assistant Professor of Oncology, had an idea to target and destroy glioblastoma cells containing a protein called survivin.

After a promising phase I study of the vaccine, a multi-site phase II study launched in 2015. The latest results are in: **SurVaxM has been shown to be safe and well-tolerated, and has extended survival beyond that seen with standard therapy alone.** In fact, when the results of the study were revealed in November, 94.2 percent of study

participants were alive one year after their diagnosis, compared with 65 percent of patients in a historical group that received modern standard-of-care therapy.

"We continue to be encouraged by the results we're seeing," says Dr. Fenstermaker. "We're thankful for the donations that have brought us to this point and eager to bring this treatment to more patients as soon as we can."

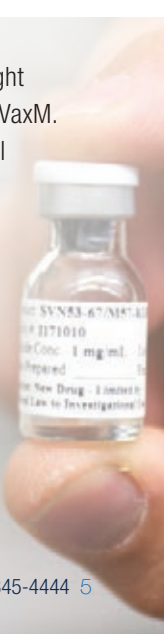
As a next step, SurVaxM will be offered to adult patients through a randomized controlled clinical study that could be available at 15 or more different centers nationally in the next year.

And now, more patients, including children and teens, could have access to SurVaxM thanks to your continued support.

The survivin protein is also present in glioblastoma and medulloblastoma tumors in children, so this younger group might also stand to benefit from survivin-targeted treatment with SurVaxM. Roswell Park is in the unique position to launch another clinical trial that could give hope for pediatric brain cancers that haven't seen progress in more than a decade.

Both studies will only be made possible with the help of continuing donor generosity.

"We have young patients right now who we feel could benefit from SurVaxM," says Laura Wiltsie, DO, Clinical Fellow in Pediatrics at Roswell Park. **"This gives hope."**



Herd of Hope Raises a Half-Million Dollars for Team Science Award



Patient Kathleen Theal; Herd of Hope campaign chair Bill Loecher; Dr. Pruitt; Dr. Wang; Dr. Goodrich; Dr. Feigin; Dr. Knudsen; Dr. Hershberger; Dr. Johnson.

Chances are, you've seen some blue buffalos appearing around town in the past few months. They represent the commitment of local businesses to support — and hopefully accelerate — the discovery of the next big cancer breakthrough.

In July 2018 Roswell Park enlisted the help of the local business community in that search for big discovery by launching the **Herd of Hope**. Companies could join the Herd by sponsoring a blue buffalo to display in support of the Roswell Park mission.

After its inaugural year, more than 100 blue buffalos now can be spotted grazing around WNY, and the \$500,000 raised is hard at work driving a first-of-its-kind "team science" research project at Roswell Park.

With a heightened sense of competition sparked by this incredible level of donor funding, over 40 researchers came together in multidisciplinary teams eager to propose project ideas that could impact the way we diagnose, prevent and treat cancer. Following

a competitive review by a committee of scientific leaders, the team selected for the grant is led by David Goodrich, PhD, Pharmacology and Therapeutics. Their project, "Improving Cancer Therapy by Countering Mechanisms of Resistance," seeks to discover new therapies that will prevent cancer relapse.

"Everyone on our team is excited to pursue this research together," says Dr. Goodrich. "This is a rare opportunity to bring together many skilled scientists with diverse expertise to tackle the problem of cancer relapse and therapeutic resistance.

"The fact that community dollars are supporting this effort makes it even more exciting. Every time we see companies proudly displaying their blue buffalos, we will know they played a critical role in helping us help cancer patients. We couldn't pursue this research without their generous support."

The winning team was announced by Roswell Park President and CEO Candace S. Johnson, PhD, at a sponsor reception on December 12. The campaign was chaired by longtime Roswell Park supporter Bill Loecher.

Kathleen Theal, a Roswell Park patient who was diagnosed with ovarian cancer in 2004, spoke at the event and thanked the sponsors and researchers for giving hope to all who face cancer. "Researchers and donors are the unsung heroes in a cancer patient's journey, because we don't often have an opportunity to see you and talk to you. **It is the donors who provide the funds that make it possible for researchers to develop new treatments and clinical trials that hopefully will eradicate not only specific cancers, but all cancers in the very near future.**"

The Herd of Hope is growing!

To learn how your company can join the Herd in 2019 or to see the current list of sponsors, visit HerdoofHope.org.

Members of the winning research team include:



David Goodrich, PhD
Pharmacology and Therapeutics



Grace Dy, MD
Chief, Thoracic Oncology



Michael Feigin, PhD
Pharmacology and Therapeutics



Sean Glenn, PhD
Director, Genomics Shared Resource



Pamela Hershberger, PhD
Pharmacology and Therapeutics



Erik Knudsen, PhD
Chair, Molecular and Cellular Biology



Steven Pruitt, PhD
Molecular and Cellular Biology



Jianmin Wang, PhD
Co-Director, Bioinformatics Core Resource



Agnes Witkiewicz, MD
Director, Center for Personalized Medicine, and Director, Pathology Network Shared Resource





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Thanks to donor giving, the Roswell Park Alliance Foundation is now paying for OmniSeq Immune Report Card testing for Roswell Park patients, with the hope that establishing a base of successful data will lead insurance companies to cover it, giving many more patients access to this important test.

"I'm not sorry about a whole lot of things, but I'm only sorry I didn't go to Roswell first thing," Kathryn says now. "I look forward to being healthy enough to witness another granddaughter's marriage, and I still haven't seen one of my grandbabies, so I'm looking forward to the summer, when they'll be coming to visit."

Your donations are bringing this test to others!

Judy has stage 3 lung cancer, which doctors discovered when she went to the hospital with pneumonia. She was sent straight to Roswell Park, where Grace Dy, MD, Chief of Thoracic Oncology, recommended OmniSeq testing on the very first biopsy of her tumor. Not wanting to miss anything, Judy agreed.

When her medical bills began coming in, Judy and her children started getting worried. As a retiree of the local public school system, Judy has great insurance, but it still doesn't cover everything.

In anticipation of the cost of the test, her family started looking at loan papers.

Then Judy received a letter letting her know that the OmniSeq testing had been covered by donations to the Roswell Park Alliance Foundation. She started to cry.

She could rip up those loan papers.

"From the bottom of my heart, thanks and gratitude."

Lung cancer patient Judy with her granddaughter Alexa. Judy was so grateful to learn her OmniSeq testing had been paid for that she sent Roswell Park a thank-you card to share with the donors who made this possible.

